

Does First Class Make Sense for Airlines?

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Abstract:

This topic reflects the behavioral characteristics and the measurement of first class air travel worldwide. Airlines in the East are pushing the boundaries and investing heavily on their first class cabins and potentially competes for their premium passenger. On the other hand, first class market in the western part of the world has been disappearing for decades and rather replaced with improved business class cabins. The worldwide shock of most recent economic crisis had a downward impact on the premium air travel and the post economic impacts were followed by some carriers cutting their first class capacity. The purpose of this research is to highlight whether first class make sense for the airlines to retain? This study is carried out with the research that some airlines have specifically targeted their routes that can fill expensive first class seats, and these were reflected by the strong presence of global business centers whereas others were diminishing due to less lucrative demand. This research will also show the complexity of airline hard product around the world and how they encounter to retain their premium passenger.

Keywords: first class, premium, load factor, business class.

1. Introduction

Flying in the first class is the VIP flying experience, with its unique stratospheric luxury, unprecedented extravagant in the air. First class cabin accounts for 20-30% of the space in aero plane, and it drives as much as 50-70% of the revenue. Over the years it went from screen to couches, to big screen TV, and to the butler. First class market is one of the key areas, where airlines really have a chance to make the margin, however the share of first class travel in total aviation pie is minuscule. Over the last 20 years the airline offering first class is significantly reduced, due to lower revenue, economic fluctuations etc. The first class is characterized by irregular and declined growth in demand and it remained marginally unprofitable. The airline industry appears to be both cyclical and strong influenced by external factors. The difficulties faced by airline in trying to match supply and demand have been compounded by the fact that the airline industry is very dynamic and subject to structural

instability. For those passengers who expect in flying absolute luxury would never consider anything but first class, paying high fare to get premium service as a proof of status and wealth. Since early days in 1960's till present, first class air travel was considered as the domain of rich and famous [7]. As now we are in the age of Low cost carrier, passengers need to get to the intended destination as cheaply as possible. But now a days competition is getting tighter more and more, with new product have emerged in the airline industry since then have become daunting players in the long haul premium market. In western part of the world due to low demand of first class the airlines transformed three class cabin models (First, Business, and Economy) into more cost sensitive model of (Business, Premium Economy and Economy), whereas in the Middle eastern and the Asian market increased the level of luxury offering from three room Residence cabin to closed first class suites [7]. In this regard airlines invest a tremendous amount of money through consistent innovation process to retain their first class more luxuries for high profile customer, while others are getting rid of their first class. It is highly complicated to justify whether first class will survive or will disappear in the future of air travel.

The idea behind researching this topic is to highlight how the future of the first-class market is going to be taking into account the brand reputation of the airline hard product and to understand the customer loyalty and behavior concerning the brand and image of the first class. Despite the luxuries quality of first class product, some carriers predict the future of first class is uncertain, whereas others enhanced the level of opulence in the sky. So what could be the future market for first class? Does First class make economic sense? If it does, then on which routes it could be? In order to answer this question we further continue the research and will see the global perspective of International first class air travel with most attractable first class routes. On the other hand if retaining first class is economically unproductive, then what can be done with that floor space to be more profitable?

2. Evolution and the Popularity of First Class and Its Challenges

2.1. Airlines Offering First Class

Currently there are 31 Carriers offering first class: Air China, Air France, Air India, American Airlines, All Nippon Airways, Asiana, British Airways, Cathay Pacific, China Eastern, China Southern, Delta (Domestic routes), Dragon air, El Al, Emirates, Etihad, Garuda Indonesia, Gulf Air, Japan Airlines, Jet Airways, Korean Air, Kuwait Airways, Lufthansa, Malaysian Airlines, Oman Air, Qantas, Qatar Airways, Saudia, Singapore Airlines, Swiss International Airlines, Thai Airways and United Airlines. International first class cabin account for significant revenue and receive most attention in both seats and on-board service. Airlines like Emirates, Etihad, Singapore, British Airways, Thai, Asiana, are constantly refurbishing their first class into private suites in the sky with carrier's unique luxuriousness. Many airlines provide luxury duvets and pillows to enhance the comfort of the passengers and these are the standard first class accoutrements, on demand in-flight entertainment system with a flat screen monitor. Food and Beverage service for first class is outstanding with menus designed by celebrity chefs and the noted sommeliers suggested wine [16].

Tickets for the first class is very expensive, because it is identified as the luxury good, improved level of service, separate menus, chauffeur drive to the airport from home, fast tracked through immigration which eventually saves time, enhanced level of privacy with onboard individual suites on some airlines, and finally the opportunity cost typically one first class cabin takes up more space that could hold up two business class seats or three to four economy seats.

Over time, first class cabin around the world gets unique lavishness, with Emirates in 2008, introduced in-flight shower, onboard mini bar and lounges on its Airbus 380, while Singapore Airlines offers the widest seat in a 35 inches ergonomic cushion known as Suites on A380. Etihad Airways made headlines with the introduction of its 125 sq. feet three room residence class, top-notch class in the sky which includes private bathroom with shower, double bed accommodating one or two

passengers and 32 inch LCD TV screen, a private jet experience on a commercial aircraft. These carriers offer closed suites which ultimately increases the privacy. Other carriers like American, Qatar, Swiss International Airline, Thai, United and Lufthansa offers open suites with pod-style concept, but still allows for some privacy. But not all these carriers are profitable in their first class offering [16].

2.2. Upgraded to First Class by Spending FFPs Miles

FFP (Frequent Flyer Program) is a purchase incentive plan which rewards the passenger for repeat patronage of the service of a particular airline. Once the passenger accumulates the mileage points according to the distance travelled, the passengers can exchange the points for free or discounted tickets, upgrade from one class to another or other forms of benefits. A recent survey by official Airline Guides found that 90% of the world's business travelers participated in a FFP. Participation is highest in US. These business travelers are heavily influenced by their FFP membership. A survey undertaken by the US General Accounting Office in 1990, found more than half the reporting travel agents reporting that travelers always or almost always choose their flights in order to build up FFP mileage points [9].

According to Atmosphere research, only a quarter of the first class passenger pays full price for their seats. The paying customer for first class in US is about 15%, the rest are upgraded through FFPs, thus it generating lower return than its huge fare. 100,000 mile flyers and the mid-tier flyers are mostly found in first class, but now upgrades are difficult than comparing to 5 years ago [15].

In USA, Airlines are avoiding free upgrades rather sell those seats at discounted price. Air travel is growing around the world with much increased demand and that reduce the number of available upgrades. When there is unsold first class seat, they try to maximize the revenue by selling at much discounted fare rather than free upgrades. This can be seen in the case of American, United, and Delta where the number of free upgrades to first class has dropped. In 2010 only 11% of the passenger paid full fare first class ticket. So the US carrier decided to sell the first class seats at discount or paid upgrades rather than free upgrades, since then the US airlines, saw an increasing number of paid first class passengers [7].

North Americans are much more influenced by the frequent flyer programs, than travelers in other parts of the world. Long ago South African Airways offered first class and it had its operation between London Heathrow and Johannesburg provides an interesting case study of the power of frequent flyer program. In 2000s SAA first class product was similar to British Airways product. But the first class traffic on SAA was disproportionately small and the efforts to boost loads all failed. With SAA's poor load factor and at lower fares it was losing money. Then they discovered that FFP was the fault. More than half of the premium traffic between these two markets was UK originating. Travelling on BA's premium cabin could earn points which they and their families could redeem to fly to anywhere in the world BA flew to, but if they flew South African Airlines they could only earn points and would allow them to fly within south Africa. The lack of attractiveness of the FFP for UK passenger was a major factor in inducing SAA to join the STAR alliance in 2005. But later SAA abandoned their first class offering. This analysis clearly shows that the most passenger who board the Premium cabin heavily rely on FFP, and fail to pay full price first class tickets. On more than 20 airlines passenger can able to upgrade to first class for less than half the price of first class ticket. The selected customers receive an e-mail inviting them to bid on an upgrade. Then the airline set a minimum amount to allow its customer to fly in first class. The participating airlines include Lufthansa, Qantas, and some international carriers [7].

Airlines around the world competing to recoup their investments, but many rely on last minute frequent flyer to fill the empty seats, because once the plane leaves the gate, the opportunity to produce revenue on a given seat is lost forever.

3. Brand Reputations

Revenues generated from first class passengers represent an important source of airline revenue so the airlines invest tremendous amount of money through a consistent innovation process to retain their highly profitable passenger segment as a key revenue generator. To facilitate passenger, airlines pursue various innovative strategies such as providing organic meals, the use of personal in flight chef, giant TV monitors, highly qualified and experienced flight attendant, personal amenity kits and strong advertising. This is surprising considering that inflight services encompass multidimensional experiences such as innovative food services, entertainment and onboard facilities. In this regard it is important to model and assess dynamic inflight experiential services as key factors influencing the formation of innovativeness for the highly profitable first class passenger market. In particular, advertising effectiveness often contributes to a favorable evaluation of the brand image because it serves to influence consumer's perception of a product quality [4]. First class travel has long been distinguished by innovative food services, exemplified by gourmet meals and their distinct presentation presented on stainless steel plates and silverware and is aimed to enhance the authentic atmospherics of inflight dining. The impact of food item on the brand image is significantly related to customer's positive evaluation because customer satisfaction has become an important phase in service operation as it brings enormous benefits to the airlines. The service quality with its price will directly affects the customer perception in the cabin and also has its effect on future behavioral intention [13]. The inflight product/service designs have a direct influence on perceived service quality and satisfaction for First class passengers. This theoretical content supports that multidimensional in-flight service experiences can be important drivers of customer-centric innovativeness. The first class passengers make attributions with respect to these five in-flight experiential service dimensions, which in turn form their perceptions of the airline's innovativeness [21].

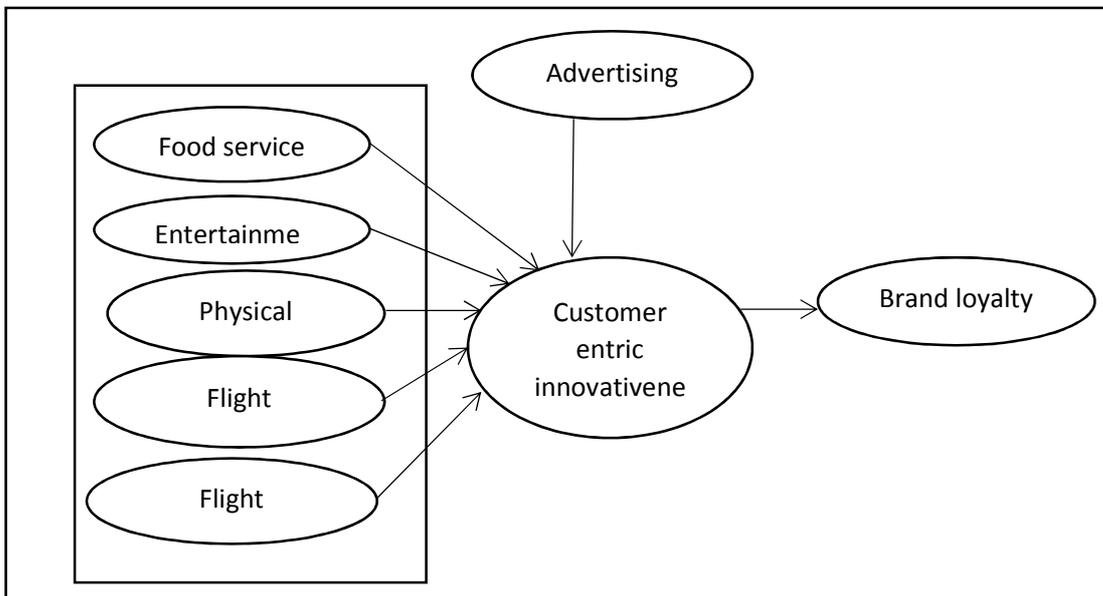


Figure: Conceptual Model of first class inflight service and advertising effectiveness.

For example, Emirates offers a range of international dishes as well as Middle Eastern menu item prepared by one of the world's leading chef as well as a fine wine selection carefully chosen by

sommeliers. Thus the Emirates emphasized superior food service designs as they have positive effect on first class passengers. First class passengers exposed to a high level of advertising effectiveness. For passengers who are influenced by a high level of advertising effectiveness are likely to respond to the firm's innovativeness because of the positive emotional response induced. Emirates airline widely advertise its first class to emphasize distinct and comfortable environments based on flat bed seats, lightening system and air purification system. Airlines have invested strategically in building the brand image of first class, currently serve 37 cities around the world with the A380 jumbo jet, which features its trademark onboard Lounge and shower spa and industry-leading first Class private suite. Emirates advertise its A380 First class cabin with celebrated Hollywood actress, Jennifer Aniston, and the commercial went viral. This campaign was designed to promote the Emirates First class experience with onboard shower spa, Lounge and its comfort. Emirates spend nearly 4% of their revenue on marketing activities, advertising and the remaining on sponsorship. In order to create brand awareness in new markets within a short period of time, the airline has an extremely proactive approach regarding sponsorships. The carrier also continued to build its brand on social media and other platform [6].

This study analyses the first class market segment and the moderating role of advertising in the formation of customer centric innovativeness with respect to inflight service and brand loyalty. Advertising is an essential factor that can influence the formation of customer centric innovativeness through inflight experiences. Facets of advertising like in the case of Emirates first class are considered in forming consumer impressions of the airline brand images and service experiences. This chapter proves that the customer centric innovativeness is a key driver of airline brand, image in the first-class passenger market.

4. Global Perspective of First Class Air Travel

First class market in United States has been disappearing for decades. The reason behind cutting back the capacity is due to lack of service and the decade older cabin which are not the competitive product comparing to Middle Eastern or Asian carriers [15].

British Airways has the huge proportion of first class seats in Europe, 90% of its fleet were equipped with first class. The carrier with more than 12 first class seats per aircraft saw its profit mostly on Trans-Atlantic route Over the past 5 years the first class revenue to New York increased by 25% according to OAG data. For over the decades British Airways highly dependent on Premium traffic, thus it offers more First class seats than any other European or American carrier [8].

Routes	BA's Market share	BA's Ave. Daily No of First class seats
LHR-JFK	78%	159
LHR-BOS	100%	55
LHR-DEL	51%	53
LHR-MIA	54%	52
LHR-IAD	68%	50
LHR-HKG	60%	45
LHR-LAX	64%	44
LHR-SFO	64%	44
LHR-EWR	53%	39

Source: CAPA – Centre for Aviation and OAG

Table: British Airways first market share on its most popular routes.

LHR-JFK is the most popular and profitable first class routes with over 159 seats per day accounts for 78% of share, operating 9 flights per day and all these are fitted with first class layout, with American Airlines 15% market share and the rest by other carriers. As in the future British Airways will gain majority of the position as the American and United continue to cutback first class offerings on this route. For the flights to Boston, BA remains monopoly in offering first class. British Airways in 2013, introduced its inaugural A380 routes to Los Angeles from London Heathrow, predicted that there would be much demand for first class with the number of Hollywood celebrities travel between these two cities regularly. As expected this route is one of the most popular premium routes. The top first class high demand route originates at London Heathrow, because the city is regarded as a world class business destination and thus putting London at the center of technological innovation. British Airways higher share of premium passenger have grown in the past decade as opposed to other carriers either dropped or cut the number first class seats. As long as there is demand on these sectors BA continue to offer its first class [5].

Lufthansa serve only small proportion of first class and cuts over 75% of the first class capacity. On the other hand for the routes between Frankfurt and Los Angeles the first class ticket sales have raised by 10% and these are not upgraded passengers but full fare paying customer, this illustrates that there is still significant demand on some routes. In the near future, the Airline will continue to provide first class service on very specific routes and for other routes the carrier will gradually reduce the first class capacity while utilizing its space for Business and Premium Economy seating [5].

The growth of first class is exclusively seen in Middle East. Air traffic growth in the United Arab Emirates has been so impressive, only few carriers in the world that can able to compete. In the last 10 years, travel to and from Middle East has increased fourfold earning the region of today's aviation cross roads. This is primarily due to the wide bodied aircraft. Middle Eastern carriers have seen a rise in first class traffic, than any other carriers. Emirates and Etihad saw 67% rise in first class volume on the route between Europe, Asia Pacific and North America. This tremendous growth is due to effective economy in that region and thus open the way for premium traveler. In Asia Pacific region number of macro-economic parameters like capability to generate income, rise in GDP per inhabitants, purchasing power which helped the rise in first class traffic via its Middle Eastern hubs. Most of its premium traffic for Gulf Carriers comes from Singapore, India, Thailand, Hong Kong and Far East regions [7]. Qatar Airways offers its first class only on its A380. Carrier does not have any plan to upgrade or to increase the number of first class. The Qatar airways seeking interest in developing its business class on a new level introducing Q suites by the end of 2017. The elimination of first class from its other fleet is due to the shrinking revenue, where its much of its yield are more stable from its business class said Akbar Al Baker CEO of Qatar Airways. He also stated that, "Since the financial downturn first class is not economically beneficial with few business executives flying in first class" [5].

In Chinese market, Air China offers its first class its long haul gateway is Beijing, a market that has genuine first class demand. China Eastern offers first class on a limited fleet, with its gateway of Shanghai. These two airlines are quiet secure and optimistic about the future of first class. But for the China Southern Airlines, case is little unsecure that Guangzhou/Shenzhen are relatively smaller first class market, in a next few years period Shenzhen as the china's startup hub that they will be able to fill the first class cabin. In Japan, All Nippon Airways and Japan airlines offers its first class only on its Boeing 777-300ER, servicing its high demanded routes to US and Europe. These carriers have no plan to upgrade or to increase the number of first class seat on the international routes. As long as there is high demand both the Japanese carrier will continue to offer on a limited fleet [2].

Comparing with other Asian carrier, Air India is not offering a competitive product. The seating is decade older cabin; carrier has no plan to further upgrade its product rather downsizing it gradually. According to the reports from "Times of India" due to poor demand and load factor the airlines is

switching to more business and economy layout. Jet Airways offers its first class only on its B777-300ER with 8 closed suites, and 6 of its aircraft were wet leased to Etihad Airways. Jet Airways long haul fleet function as an offshoot of that of Etihad, so the carrier likely to retain with its partner Etihad. Though Jet Airways has an excellent product, without its partner Jet airways first class would have disappeared [10]. Malaysia Airlines has its first class only on A380 according to “Aviation week network” the airlines plans to phase out its A380 by 2018, and will be replacing it with A350. The reason is that the A380 is too large for its network. The carrier had faced various challenges in the recent years including the financial performance, market structure, passenger experience and competition. The Malaysian market is price sensitive and it does not support first class like Singapore Airlines [2].

5. Economic Fluctuations

The decline of yield in the airline industry is inevitable. The collapse of major financial institutions over the past few years has radically affected the world economy. The worldwide shock of the terrorist attacks of 9/11/2001, Arabian Gulf to the most recent economic crisis all had downward impact on the demand for air travel. However these impacts on a key change in the demand for air travel. The traffic mix of Economy, Business and First class passengers have changed over a decade period, as relatively more travelers choose Economy class instead of Premium classes. This led to fall in yield by third in the premium cabins and has prompted huge fall in industry wide yields. Due to this shift more Business travelers have switched from Premium classes to Economy products. The passenger travelling in the First class shifted to Business class, Business class passenger switched to Economy class, thus the differences among the business and leisure increased dramatically. Hence the global economic downturn has significant impact on demand, and it is essential for the carriers to examine whether these changes are caused exclusively by the economic crisis or by the shift in demand side of business traveler due to this crisis. The airline industry is recurrent in nature and has to deal with external shocks, so this chapter will provide the evidence of the changes in the demand for first class travelers in the recent years, and whether these changes will impact the future of first class demand [19].

The developing region in first class traffic is the Middle East, the traffic between Middle East to Europe, Asia pacific and the North America is constantly increasing with the number of onboard first class seats. Despite the financial crisis, year on year there is growth on premium traffic across the major intercontinental routes through its hubs in the Middle East. While historically North Atlantic takes a huge share of first class traffic, but since 2010 slow growth has been reported which tighten the capacity and the revenues fell short. Europe is the weakest among the major intercontinental routes in terms of first class traffic. Routes connecting the transatlantic service from Europe to North America saw a 3.7% rise. Middle East is the only region where they enjoy strong premium traffic despite financial crisis. Middle East experienced premium growth of 12.3%, and those travelling through Europe to Middle East with a growth of 10.2% [1].

This has proved that the behavior of first class traveler which has changed over the years as they have taken advantage of cost reduction and provides the greater choice for traveler at lower price switching to the business class products. External shocks hit the aviation industry over the past few decades; sharp increase of oil price in 1970's and the early 1980's, the recession of 1980's, 1990's, 2000 and the most recent global financial crisis of 2008 all these shocks made the travelers to question the need of paying two to three times the business class fare [17]. So as a result the corporates are decided to cut the travel budget or on the number of people they send on a given trip. Unlike other industry such as automobile, the airline industry will recover slower (takes up to 12-18 months) in times of recession. The first class traffic is exposed to the reactivity of economic downturn and it is most unlikely to recover.

6. Improved Business Class Cabins are Popular with Carriers that Dropped First Class

The tendency of the business traveler traveling in first class has fallen in recent years and they find other options of choosing the business class products, one of the reasons why the travelers are switching away from first class is that the increasing fare variation between business class and the first class. The second reason is that the more enhanced business class cabin, with fully flatbed layouts is popular with most carriers as a result some airlines are going away from the first class offering. Earlier days business class were just the forward facing chairs, more like today's premium economy cabin. Over the years, the airlines enhanced their business class offering with fully flatbed on the international routes. This horizontal lie seat occupies lots of space than the traditional cabin, so with keeping in mind the comfort of traveler some carrier use their space by fitting in like a nestled herringbone style, which on the other hand gives added comfort and utilize the space efficiently.

Over the years, many airlines including Air New Zealand, Delta, Continental, Turkish, SAS, South African and Finnair have removed its first class from its entire fleet, in favor of an enhanced business class. In 2014, TAM Airlines a Brazilian national carrier removed its first class cabin from its entire fleet due to poor load factor and demand. This led to improve their business class product. With the onboard service and amenities that were once the realm of first class now available at business cabins [3].

In 1989, Virgin Atlantic made a major breakthrough by introducing its so called upper class to all its long haul routes. This was an upgraded product, but at business class fares. Seat pitch was 55 inches, when all other long haul carriers were offering only 38-48 inches. This together with a cabin service which was equivalent to other airlines first class gave Virgin Atlantic a major competitive advantage. It enabled virgin to expand against head on competition from British Airways in markets where others notably British Caledonian had failed. Later in 2003 its design been transformed into herringbone style offering privacy partition between passenger with direct aisle access. Since its beginning of its service in 1984, Virgin Atlantic has never offered first class but it offers a range of service like, limousine service to the airport, dedicated security channel straight to the gate, access to lounges and onboard bar at business class price, thus its product is competitive to the carriers offering first class on the similar routes [8].

The first class market is shrinking with introduction of fully flatbed concept in business class. As previously mentioned Virgin Atlantic upper class was successful in creating high quality brand image, which it still maintains. Many passengers think of it as a first class product at business class fares. Later many different airlines around the world have adapted to this concept, which leads to difficulty in differentiating the product. Thus over the years most international carriers gradually improved their business class product in various ways with more leg room, better seating, improved catering etc. In the bottom line, Airlines flying first class, similar to its business class product are most unlikely to find a market for their first class.

7. Economical Assessment

This chapter indicates the case study of the airlines first class cabin in long haul market. IATA studies in 1990s and the early 2000s suggested that in many markets first class load factors were not high enough to compensate for the high cost involved. The economic assessment part will show the detailed analysis, whether the International first class is economically reasonable to retain or not. If it is not making any profit in first class how can we utilize the floor space of first class to be more profitable?

The below example shows the Lufthansa flight to Chicago from Frankfurt, to prove the first class on this sector is economically unprofitable.

Route: FRA-ORD

Aircraft type: Boeing 747-800

No. of onboard First class seats: 8

First class SLF: 25%

First class return fare for travel period between (11/01/2017-18/01/2017) is € 6096

Average Economy return fare for travel period between (11/01/2017-18/01/2017) is € 850

Revenues can be calculated by the following formulae,

$$\text{Revenue} = \text{No. of onboard seats} * \text{load factor} * \text{Average return fare}$$

To calculate first class revenue, we substitute the value in the above mentioned formula, 8 seats * 25% load factor * Ticket price € 6095 = € 12190. B747-800 on this route is equipped with 208 economy seating, carrying 80% load factor. If we convert first class floor space into economy seating, predicting 1 first class floor space can accommodate 3 economy seats. We can install, 8 First class floor space * 3 Economy seats = 24 Economy seats. To calculate the Economy class revenue, we substitute the value in the above mentioned formula, 24 seats * 80% load factor * Ticket price € 850 = € 16320. After comparing those results, economy class revenue is higher than the first class revenue. If Lufthansa converts first class into economy class on this route, huge cost saving of € 4130 per sector (€ 16320 - € 12190) can be incurred. Retaining first class will also result in additional costs for carrier, for Lufthansa 3 cabin crew will take care of 8 first class seats whereas in economy class 3 cabin crew will take care of 120 Passenger. Meals in the first class cost approximately € 100, whereas in Economy relatively cheaper.

Another example to prove that the first class is economically unprofitable for British Airways routes to Vancouver from London Heathrow.

Route: LHR-YVR

Date of travel: Between (17/01/2017-27/01/2017)

Aircraft type: Boeing 747-400

Revenue measure	First class	Business class	Premium Economy class	Economy class
No. of onboard seats	14	70	30	185
Average return fare	£ 4706	£ 3248	£ 985	£ 701
Achieved load factor	30%	55%	70%	80%

Source: Fares from BA webpage

Table: LHR-YVR first, business, premium economy and economy fares during January 2017

$$\text{Revenue} = \text{No. of onboard seats} * \text{load factor} * \text{Average return fare}$$

To calculate, The First class revenue, 14 seats * 30% load factor * ticket price £ 4706 = £ 19,765.20. For Business class, 70 seats * 50% load factor * ticket price £ 3248 = £ 113,680. For Economy class, 185 seats * 80% load factor * ticket price £ 701 = £ 103748. If British Airways operates without first class on this sector, we can utilize its space for fitting additional economy and business seats. 1 floor space of first class is equivalent to three times the area of economy class and 1.5 times the area of business class. If we convert 10 First class floor spaces, into Economy class, which is capable of carrying 30 Economy seats (10*3) thus the revenue for the added economy class would be, 30 seats *

80% load factor * Ticket price £ 701 = £ 16824. The rest of the 4 first class spaces can be converted into 6 Business classes (4*1.5), this is due to the fact that business travelers between London and Vancouver are increasing, and hence there might be the additional demand for business class. The revenue for added business class would be, 6 seats * 55% load factor * Average ticket price £ 3248 =£ 10718.40. If British Airways retains 14 First classes then the revenue earned during the flight is £ 19,765.20, but if we convert first class into business and economy revenue of £ 27,542.40 (£ 16824 +£ 10718.40) is added. Huge cost saving of £7777.20 can be incurred on this sector per day. Also Canada is situated in the market, where there is no first class demand; as a result of poor load factor earlier in 2015 Lufthansa stopped serving Canada with first class configured aircraft [18].

After analyzing the two above mentioned examples we can clearly see that retaining first class by either carrier is economically unjustified, alongside there is a huge cost saving in terms of flight attendant, onboard lounge, limousine shuttle and catering. If carriers convert low demanded first class floor space into more Economy and Business seating then it would be financially attractive option for both carries and the passengers.

7.1. Analyzing the First-class Demand Between Europe to North East Asia

This case study examines the first class demand for the routes between Europe and North East Asia. Analyzing, London Heathrow (LHR) to Hong Kong (HKG), Paris (CDG) to Tokyo (NRT) and Frankfurt (FRA) to Seoul (ICN) routes to prove that the first class is unprofitable in these segments. The below fare is for the travel period between (17/11/2017 to 29/11/2017).

Routes	Return Fare First class	Return Fare Business class	Airline
LHR - HKG	€ 5667.97	€ 4554.24	British Airways
	€ 4418.31	€ 3193.06	Cathay Pacific
FRA - ICN	€ 3599.09	€ 1479.09	Lufthansa
	€ 5918	€ 2282	Asiana Airlines
CDG-NRT	€ 6670.34	€ 3689.89	Air France

Source: Fares from the webpage of British Airways, Cathay Pacific, Lufthansa and Asiana Airlines

Table: Europe to North East Asia first and business class fares.

An examination of fares on LHR-HKG, shows first class fare is very similar to its business fare. As there is a narrowing gap between these two cabin classes only few passenger travel in first class in favor to business class. For the routes to Seoul and Tokyo the fare level between these two classes is justified with over double the times as high as first class compared to its business class cabin. In fact in 1999 British Airways average yields on all its services from Europe to North East Asia including London-Hong Kong routes were € 4.75 in economy, € 2.52 for business and € 33.67 for those in first class. In essence first class yield was seven times as high as economy yield and the business yield around four and half times [14]. The result below suggests that yields in business class appear to be relatively high in relation to the cost of providing for a business passenger. Thus the question, Does business class is the most profitable market sector on long haul routes? From an economic analysis by

IATA based on returns from twelve airlines for their service between Europe and North East Asia in the late 2013, one can draw some interesting conclusions.

Measure	Cabin class		
	First	Business	Economy
Passenger yield per RPK (US cents)	26.7	19.8	5.8
Break-even load factor	50%	45%	85%
Load factor achieved	29%	54%	81%

Source: compiled IATA report (2013).

Table: Europe to/from North East Asia passenger results by class of service in 2013.

The relationship of average passenger yields by cabin class for first, business and economy is 5.5:3.6:1.5. This is very close to the fare analyzed on LHR-HKG route. Here the average first and business class yields are not as high as those of British Airways a decade ago. Clearly we can see that business class is profitable. The business load factor is 54%, well above the break-even load factor of 45%. The greater concern is the fact that the first class load factor is 29% is only just over half that required to break even 50%.

The first class service between Europe and North East Asia is unprofitable. This pattern of profitable business class service, marginal profitable economy class and totally unprofitable first class appears to be the pattern in many international air markets.

7.2. Analyzing the First-class Demand for the Routes Within Asia Pacific, North and South Atlantic and Within Far East

Measure for the routes within Asia-Pacific	Cabin class	
	First	Business
Passenger yield per RPK (US cents)	20.4	12.9
Break-even load factor	48%	41%
Load factor achieved	30%	45%

Source: Compiled IATA report premium traffic (2014).

Table: Passenger results in first and business class for the routes within Asia-Pacific in 2014.

The above Table shows, only if the actual load factor is above the break-even load factor are the services profitable. Conversely if the actual is below the break-even, losses are being sustained. On this region it is evident that the business class is profitable than the first class.

Category	North Atlantic		Within Asia-Pacific		Within Far east		North America-South America	
	First	Business	First	Business	First	Business	First	Business
Yield (US cents per RPK)	37.4	19.2	20.4	12.9	23.9	18.7	8.5	7.3
Break-even load factor	36%	37%	48%	41%	108%	57%	117%	93%
Load factor achieved	41%	55%	32%	45%	24%	49%	54%	67%

Source: Compiled IATA report premium traffic (2014).

Table: Passenger yields and load factors in business and first class in four regions (2014).

In the above four areas examined first class were unprofitable everywhere except the North America. This is due to high demand in domestic first class. In fact on routes between North and South America and those within the Far East the load factor required to break even on first class service was over 100 %, and it is clearly impossible. In contrast to first class, business class was profitable in the two largest market areas, within North Atlantic and within Asia-Pacific. First class traffic between North and South America and within Far East is clearly unprofitable and it doesn't make sense to retain. Thus after analyzing these data it is clearly evident that business class is profitable than first class [7].

This chapter shows the, business class load factors were high enough in many markets to ensure profitability. In fact on many long-haul routes, the business class is the most profitable market segment. That is the main reason during 1990s and later many international airlines dropped first class altogether or reduced the number of first class seats and increased the seating and the quality of service offered for business class. Rates of the company and income tax have fallen quiet appreciably over recent years and this could partly explain why sales of first class have been so slow to recover from economic recession and why more and more companies are requiring their business travelers to trade down to business or economy class. Cutting the first class seat is a huge cost saving option for carriers, due to its uncertain demands and it make more sense to replace with business and economy class.

8. Conclusions

The customer inclination that varies due to economic slowdown, and that caused many carriers to step away from the first class and rather investing on business class product. Airlines in the Middle East and Asia are increasingly competing for their premium product with onboard suites, shower, bar and lounge access to attract the high yield business passenger. On the other hand airlines in North America, Europe have reduced the number of planes offering first class and began to focus on their premium economy and business cabin. Providing first class services has an extra operational challenges related to the difference in cabin crew, food and beverage, service quality, lounge facilities etc. The profit margins in the first class are much higher. On average, the cost-per-seat of the first class is roughly 3 times of the business class. The airlines, however, price a first class ticket two to four times that of a business class ticket. This puts the question in the Airline world, whether first class necessarily make sense for future of premium travel. As we have seen the gap between business class and the first class are becoming narrow in many airlines, how much more does one need in first?

For the airlines like BA, Singapore Airlines and Emirates, that make sense in their first class routes but for the US carriers which mostly serve short to medium haul than the long haul routes, the first class is below its margin. Even though the first class seats are booked, over 40% of them were upgraded through frequent flyer miles. Overall in USA, the carriers did not offer competitive first class

product, because limited US market support it. Also the demand is not huge comparing with Middle Eastern and Asian carrier due to outdated 15 years old hard product and this is the main reason the US carrier cannot deliver similar level of service as their rivals and that's the main reason why the passenger on the routes between London Heathrow to New York have switched from American Airlines in favors of British Airways which has the market share of nearly 80%. This changed landscape allows US carrier to focus on improved business cabin. As long as at least some of those carriers remain financially healthy, the battle to gain an advantage in the competition for high-yield first class traffic will persist, particularly in the established corridors of power across the Atlantic, Middle East and Pacific to the world's primary financial centers. Air France, ANA, British Airways, Lufthansa, Korean Air, Qantas, Singapore and Swiss all these airlines were based in markets that have first class demand. So these carriers will retain their first class for the predictable future. These routes support some wealthy business man and they insist to fly and can afford the price of first class and it is profitable only in some business routes whereas other sectors are less lucrative. For Emirates, Qatar and Etihad, there isn't much demand in their home markets with the transfer traffic and with a huge share of oligarch in the Middle East, even though it's not economically sense full in offering first class, the airlines still maintain because of brand reputation in the media about luxury, societal prestige, reflecting the wealth of the country and these airlines can successfully fill first Class cabins by drawing customers from multiple route permutations via their Middle Eastern hubs. For Gulf Air, Oman Air, Kuwait Airways and Saudia it depends on political factors. These countries has large share of oligarch who pay relatively high for their Air travel. But if the economies shift to a more egalitarian structure, then the attributes for the first class might decline. In India, for Jet Airways with its partnership with Etihad will certainly boost the first class demand even though it doesn't sell in India. For Air India the future for the first class is bleak with low demand and poor load factor, and it is unlikely to retain the product for the foreseeable future. For El Al with not much available data their first class doesn't have any justification in offering the premium product. Air China and China Eastern will continue to offer first class due to significant demand in that regions. For Garuda Indonesia and Thai Airways as both of their home market is price sensitive to pay for the luxury on-board product. In the near future both the carrier will convert into business class. American and United are phasing out its first class in order to replace it with improved business cabin. First class is unprofitable for many carriers and it is economically unjustified to retain. Cutting the first class seat is a huge cost saving option for carriers, due to its uncertain demands. So if the carriers convert first class floor space into more economy and business seating then it would be more financially attractive option for both airlines and the passengers. The carrier can reduce the cost of empty first class seat and can increase the overall revenue as the future of international first class is far from secure.

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