

Indian Airport Lounge
Aggregators Market submitted
to Dreamfolks Services
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GLOBAL MACRO-ECONOMIC OUTLOOK

Ongoing global recovery from COVID19, which varied across the globe was further tempered subdued due to the Russia-Ukraine war and its expected impact on global economies. The world economy registered a growth of 6.1% in CY 2021 and an expected growth of 3.6% in CY 2022. Beyond 2022, growth is expected to moderate to 3.43% in the near term. The rebound in Indian economy is forecasted to be much higher at around 8.2% in FY 2022.

Global Economic Scenario

The global economy grew at 6.1% in CY 2021¹ and is expected to grow by 3.6% in CY 2022 as per the World Economic Outlook (WEO) released by International Monetary Fund (IMF) published in April 2022.

As compared to the WEO published in April 2022², the world economic growth has been revised downwards by 2.32% for CY 2022. The upwards revision by 1.93% for CY 2022 for advanced economies is an outcome of growth outlook, balanced by upward revision of 2.58% in Emerging Markets and Developing economies (EMDEs). The comparison of WEO data of Oct 2021 and April 2022 are shown below in Table 1.

Table 1: Global GDP Outlook

Month	April 2022		October 2021	
Year	2022	2023	2021	2022
World Output	3.59%	3.55%	5.90%	4.90%
Advanced Economies	3.26%	2.36%	5.20%	4.50%
Emerging Market and Developing Economies	3.82%	4.40%	6.40%	5.10%

Source: Data from WEO published by IMF on April 2022

Regarding the changed outlook, IMF view is, “The upward revision for 2022 reflects an upgrade for advanced economies—the economic rebound since the pandemic and the substantial contribution of advanced as well as fast moving economies to the same is expected to be one of the key drivers. In FY 2021, the downward trajectory of the global economy was in part due to supply disruptions—and for low-income developing countries, largely due to worsening pandemic dynamics. This is partially offset by stronger near-term prospects among some commodity-exporting emerging market and developing economies. Rapid spread of Delta and the threat of new variants had increased

¹ All years in the economic forecast section pertain to CY unless specified otherwise

² <https://www.imf.org/en/Publications/WEO/Issues/2021/07/27/world-economic-outlook-update-july-2021>

uncertainty about how quickly the pandemic can be overcome. Policy choices have become more difficult, with limited room to maneuver”³

In several EMDEs, elevated COVID-19 caseloads, withdrawal of macroeconomic support and barriers to vaccination were offsetting the progress made in several indicators in the recent years. While the few commodity exporting nations in EMDEs are benefitting from the higher prices, other nations are suffering due to high cost of raw material which is negatively affecting their exports.

The overall rebound in economy is also indicated by recovery in the global manufacturing sector. Global manufacturing activity has firmed, and industrial production has surpassed its pre-pandemic level. In services sector, travel and tourism industry is still to recuperate from the blow of the pandemic however it shows a positive trend and is likely to recover to pre-pandemic levels earlier than previous estimates.

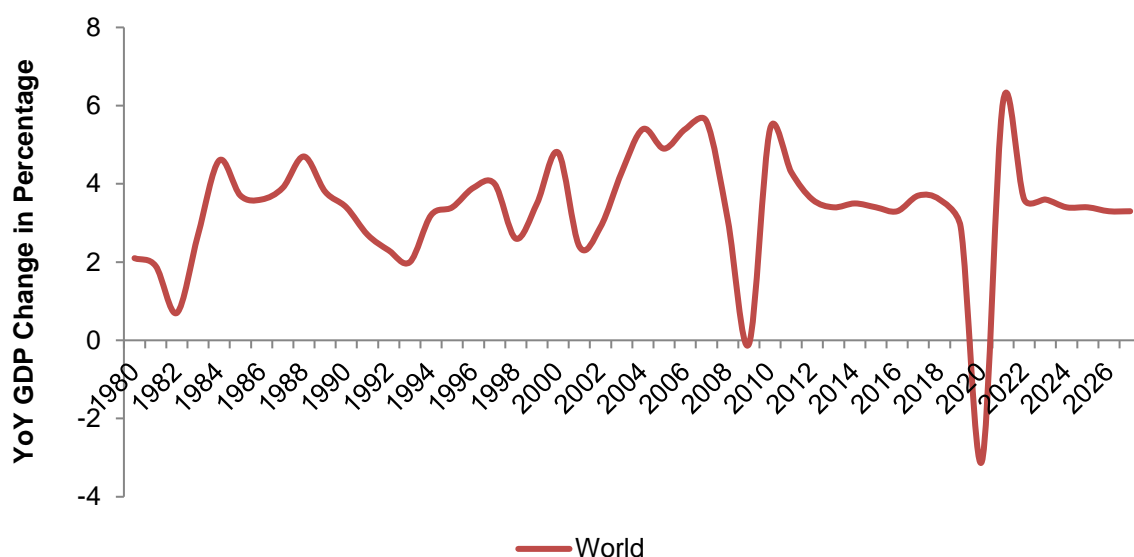
Contrarily, commodity prices have seen an increase in advanced nations. This is attributed to the improving global outlook and as well as commodity-specific supply factors. Recovery in commodity prices and in global activity from the reeling trough of the pandemic is contributing to an increase in consumer inflation, especially in certain EMDE's that have experienced currency depreciation. To a certain extent this was aggravated by the Suez Canal blockage in March (Ferrantino et al. 2021), consequently the terms of trade have deteriorated for EMDE's as they export more of primary products. However, it is to be noted that primary products have an inelastic demand in the short term resulting in a price rise for primary goods in the post pandemic period. There also has been a sharp rise in freight charges and localized shortages of shipping containers. In spite of many nations having adopted a combination of fiscal and monetary policy interventions coupled with an external trade policy strategy, in certain cases it was not sufficient to tide over the effect of the pandemic.

The pandemic induced disruptions and subsequent supply chain jeopardy exposed the contemporary vulnerabilities of existing supply chain. Motivated by economic nationalism and vulnerabilities in supply chain, many governments are actively promoting import substitution. However, the success of implementation would depend on consumers disposition towards low-cost goods, and principle of comparative advantage would operate resulting in international trade and specialization

Based on the above factors, the real GDP growth projections are as below:

Figure 1: World Real GDP Growth

³ <https://www.imf.org/en/Publications/WEO/Issues/2021/10/12/world-economic-outlook-october-2021>



Note: Real GDP growth figures from CY 1980 to CY 2021 are actuals; and for CY 2022 to CY 2026 are estimates | Source - IMF⁴

To summarize, as per IMF, real GDP growth of the world was 6.1% in CY 2021, and is expected to be 3.6% in CY 2022, and moderate to 3.43% in the medium term.

Regional Growth Outlook

Regional growth has bounced back, however speed of recovery differs considerably among nations and regions. Recovery to pre pandemic output is far from complete at the current instance of time.

In advanced economies, continued monetary and fiscal support was a necessary condition to drive the post-recession recovery in the short-term gap. To achieve price stability and public debt sustainability, a gradual normalization of macroeconomic policy level interventions will be necessary. In advanced economies, inflation is expected to be 5.7% in CY 2022 as a result of war-related rises in commodity prices and broader pricing pressures.

Asian countries are expected to make a strong recovery from the pandemic induced effects⁵. This will be mainly driven by domestic and international consumption demand and export demand. In the best-case scenario, exporting nations are expected to undertake further devaluation, which would make their exports more competitive in the international market. The CPI inflation within Asia for the first 6 months was 3.0% 2022 y-o-y from 2.1% in 2021. Slower normalisation of monetary policy should be supported by lower inflationary pressures, which are a reflection of Asia's weaker demand recovery.⁶

⁴ https://www.imf.org/external/datamapper/NGDP_RPCH@WEOWORLD

⁵ https://www.imf.org/en/Publications/WEO/weo-database/2020/October/weo-report?a=1&c=200,505,511,&s=NGDP_RPCH,&sy=2020&ey=2025&ssm=0&scsm=1&sc=0&ssd=1&ssc=0&sic=0&sort=country&ds=.&br=1

⁶ <https://www.nomuraconnects.com/focused-thinking-posts/asia-2022-outlook-as-the-tide-turns/#:~:text=In%202022%2C%20headline%20CPI%20inflation,gradualism%20on%20monetary%20policy%20normalization.>

Southeast Asian nations will be largely benefitted by gains in trade⁷. Even during the worst of the pandemic, trade has upheld invariably well. Southeast Asia is a heavily trade driven region, and trade can drive the post pandemic recovery in the region. A huge surge in demand for personal protective equipment and electronic devices was observed as the world transitioned from an office economy to work from home economy. The phenomenon has resulted in has increased manufacturing of these equipment in South East Asian nations. (

Among Asia Pacific region, when comparing the three largest economies; China, Indonesia and Thailand; only China has managed to surpass pre pandemic level growth. This is mainly because the Chinese government has effectively managed to control the infections and the recovery has broadened from public investment to consumption demand.

In China, real GDP growth in CY 2020 was 2.2%, with strong rebound of 8.0% in 2021 and is expected to grow by 4.4% in CY 2022. This is due to the strong policy interventions and the sooner than expected recovery made by China. However, in 2023, real GDP growth is expected to moderate to around 5%.

Risk of raise in pandemic, the conflict in Ukraine, and tightening global financial conditions are all expected to have an adverse impact on Asia and the Pacific's economic development this year, which is expected to slow down the overall economy. According to IMF, regional GDP of EMDE will moderate by 3.8%, which is lesser than last year's growth rate of 6.8%. Reduced demand from Europe is another factor which is poised to impact the region negatively, while emerging economies are poised to be affected by higher commodity prices.

The above is attributed to robust fiscal measures by the government and foreign direct inflows. Real GDP growth for major economies from Asia Pacific region are expected to moderate from 7.3% in CY 2021 to 5.5% in CY 2025 as the fiscal stimulus is slowly withdrawn.

The Economic Commission for Latin America and Caribbean experienced a growth of 6.8% in CY 2021 and is expected to moderate to 2.5% in CY 2022. ⁸ .

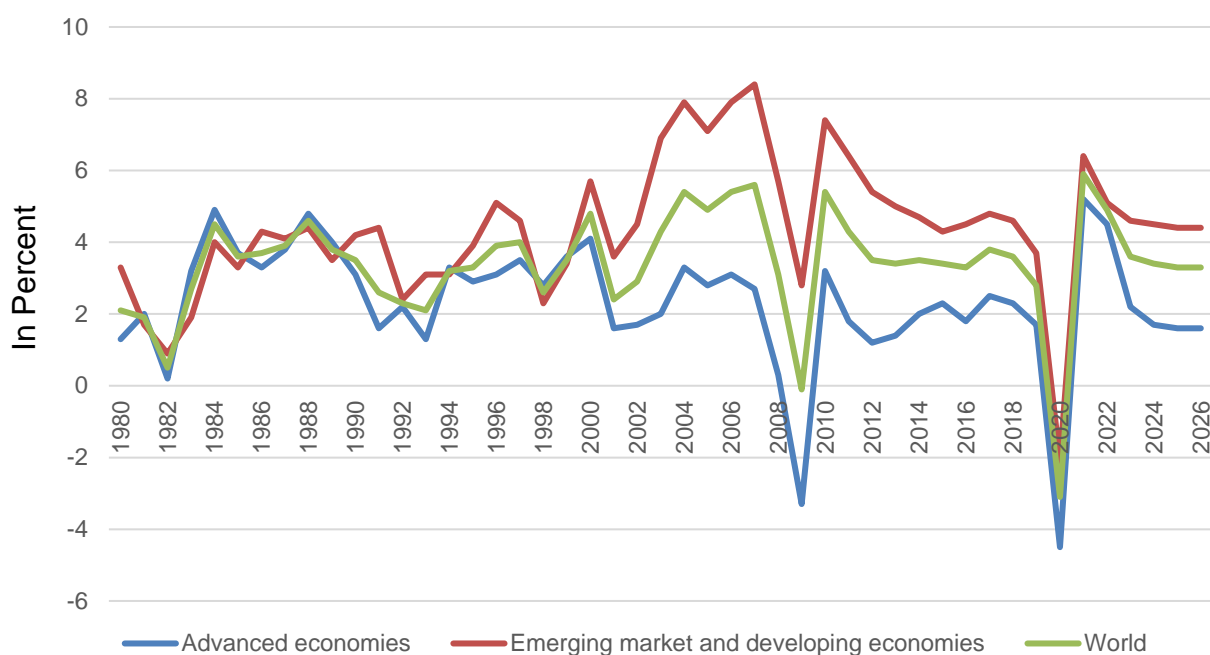
In medium term, African nations like Gabon, Uganda and Kenya with an export intensive trade policy made a strong recovery from the imminent effects of the pandemic. This would be parallel to growth in demand for consumer goods by advanced countries. The exports of above-mentioned African nations are used as raw materials for final consumer goods of advanced nations. For e.g. cocoa beans and coffee.

Advanced Economies, Global economy and EMDE's are all set to experience a moderate growth after the initial rebound in 2021 and 2022. It is expected that the world economy will record a GDP growth of 3.3% in CY 2025.

⁷ <https://www.brookings.edu/blog/order-from-chaos/2021/03/15/southeast-asias-post-pandemic-recovery-outlook/>

⁸ <https://www.imf.org/en/Publications/WEO/Issues/2022/04/19/world-economic-outlook-april-2022>

Figure 2: EMDE's and Advanced Economies Projection



Note: Real GDP growth of different country groupings. Data till 2021 is actual⁹, and 2022-2026 is forecasted
Source: Frost & Sullivan Estimates

Table 2: COVID Impact and Recovery CY 2022- 2023

COVID Impact and Recovery	CY 2022 (Expected)	CY 2023 (Expected)
Advanced Economies	3.26%	2.36%
Emerging Market and Developing Economies	3.82%	4.40%
World	3.59%	3.55%

Source: IMF

Main drivers of post pandemic recovery as per forecasts are India, Cambodia, Vietnam in Asia and Ethiopia, Kenya and Niger in Africa as shown below. This is discounting the growth of China.

Table 3: Real GDP Growth, 2019-2027

Country	2019	2020	2021	2022	2023	2024	2025	2026	2027
USA	2.3	3.4	5.7	3.7	2.3	1.4	1.7	1.7	1.7
UK	1.7	-9.3	7.4	3.7	1.2	1.4	2.2	1.8	1.5
China	6	2.2	8.1	4.4	5.1	5.1	5	4.9	4.8

⁹ <https://www.imf.org/>

Japan	-0.2	-4.5	1.6	2.4	2.3	0.8	0.7	0.5	0.4
India	3.7	-6.6	8.9	8.2	6.9	7	7	6.5	6.2
Cambodia	7.1	-3.1	2.2	5.1	5.9	6.1	6.3	6.5	6.5
Kenya	5	-0.3	7.2	5.7	5.3	5.4	5.5	5.4	5.4
Niger	5.9	3.6	1.3	6.9	7.2	11.5	13.4	7	6.3
Vietnam	7.2	2.9	2.6	6	7.2	7	6.9	6.8	6.7

Note : Table explaining Real GDP growth of major economies pre pandemic and probable drivers of post pandemic recovery in world. All years in CY except India which is in FY Forecasts | Source: IMF Data Mapper, IMF 2022.

Current Situation of COVID Spread

More than 90% of economies across the globe faced COVID induced recession in 2020. Subsequent waves, and emergence of variants such as Delta variant have to a certain extent reduced the creativity about the end point of the pandemic. However certain regions such as India have shown remarkable recovery. Emerging from the extremely high case load of the devastating second wave, the case load has dropped significantly in light of increased vaccination rate and possibly increased resistance in the population.

It must also be noted that the global and regional economies continue to grow despite the emergence of new variants. The endpoint of the pandemic may be uncertain, but it may be safely said that the economic impact of regional outbreaks is unlikely to be as devastating as seen in 2020.

The global recovery in the immediate future is being driven by advanced OECD economies like the United States. It is expected that third party spillover effects and positive externalities from these nations will continue to have substantial effect on global demand. Global consumption demand has shown resurgence after months of curtailment as the markets begin to open and work freely.

Under the assumption that a significant amount of population is inoculated, it is expected that societies can shy away from the adverse effects of pandemic and tide over the impact. The endemic endpoint to the pandemic as suggested by epidemiologists could be that Covid-19 becomes a common household infection like any other disease.¹⁰

Finally, rapid rates of effective vaccination by governments all over the globe would contribute to an endemic end point of the pandemic which leads us to believe the worst is behind us.

¹⁰ <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/when-will-the-covid-19-pandemic-end>

Steps Taken by Global Governments to Mitigate the Impact of Covid-19

In comparison to the 2008 Global Financial Crisis, governments across the globe undertook timely policy intervention during the pandemic. It is also to be noted that , the global financial crisis had an exogenous shock from the collapse of banking sector affecting the aggregate global demand which further developed into a recession. In contrast, the COVID induced recession was primarily due to supply side factors which are easing out as the lockdowns start to abate around the globe¹¹.

The steps taken by a few leading countries are enumerated in succeeding paragraphs.

US: The key economic policy responses adopted by the U.S are:

- On the fiscal front President Biden, signed into law, the “American Rescue Plan’ on 11, March 2021. It accounts for 8.8% of the U.S GDP which is about \$ 1,844 bn. The plan extends unemployment benefit programs and assistance to families, communities, and businesses, with \$1,400 being provided to eligible individuals as a direct stimulus package.
- On December 28,2020 President Trump signed a US\$ 86 billion coronavirus relief and government funding bill as a part of Consolidated Appropriations Act 2021. It amounted to around 4.1 % of US GDP.
- The plan includes enhanced unemployment benefits of US\$ 300 weekly and federal enhancements for the unemployed.

India :

- The fiscal support measures were categorized into two measures: above the line measures and below the line measures. Above the line measures allocation was about 3.5% of GDP and below the line measure allocation was about 5.3% of GDP. The support was announced on March 26, 2020.
- Above-the-line expenditure mainly focused on social protection and healthcare including cash transfers to low-income households and in-kind transfers.
- Below-the-line measures primarily focused on credit facilitation and building up investor confidence so that investment demand can be driven. In below-the-line measures, both fiscal and monetary tools were used in tandem.

UK:

- U.K Fiscal Policy came in six tranches¹². It was first announced on March 11, 2020. Around \$37 billion was allocated as fiscal stimulus package.

¹² <https://www.investopedia.com/government-stimulus-and-relief-efforts-to-fight-the-covid-19-crisis-5113980>

- Additional funding for National Health Services, Charities and Social Workers were spent amounting to £48.5billion.
- Several measures to support businesses amounting to £29billion
- Tax holidays for small scale entrepreneurs and businesses.

France:

- \$8.7 billion was spend on improving and upgrading healthcare system
- \$26 billion was allocated for work sharing wage support.
- Postponement of rent and utilities for small and medium scale retailers
- Bailout loans for businesses

Estimates from latest panel of UNWTO (United Nations World Tourism Organization) suggests that the tourism sector is expected to see an increasing growth and make a strong recovery as the economic and COVID situation improves¹³based on the below factors:

- The pandemic is waning at a global level, and effects of it are slowly subsiding. Life is returning to normalcy.
- There is a huge volume of pent up demand, and economic activity is expected to recover sooner than earlier estimations
- More borders are opening up to international tourists and travelers under reasonable restrictions or conditions.
- In 2020, reduction of -65.9% was observed in air travel. However, this trend has reversed with estimated growth of 18% in 2021, and 51% in 2022 for global air travel over 2020.
- Indian aviation sector saw a 37% month on month recovery in domestic air travel in September 2020.¹⁴
- Estimates from ICRA (Investment Information and Credit Rating Agency of India Limited) suggests that there is continued increase in growth volume of domestic aviation
- Many governments are adopting tourist friendly measures like visa on arrival, electronic visa, and softer travel restrictions in hopes of inducing tourism.

Indian Economic Outlook Relatively More Positive

Major drivers of post pandemic recovery are consumer demand in countries with a huge consumer base like China and India. Similarly, investment demand in certain countries is likely to go up as they have adopted import substitution policies, for e.g., Make in India/ Atmanirbhar Bharat. Additionally, services with high elasticity of income like tourism and entertainment are also expected to drive post pandemic recovery. (Pls update with a single liner to make relevant to eco situation 6 months later) India's GDP is expected to

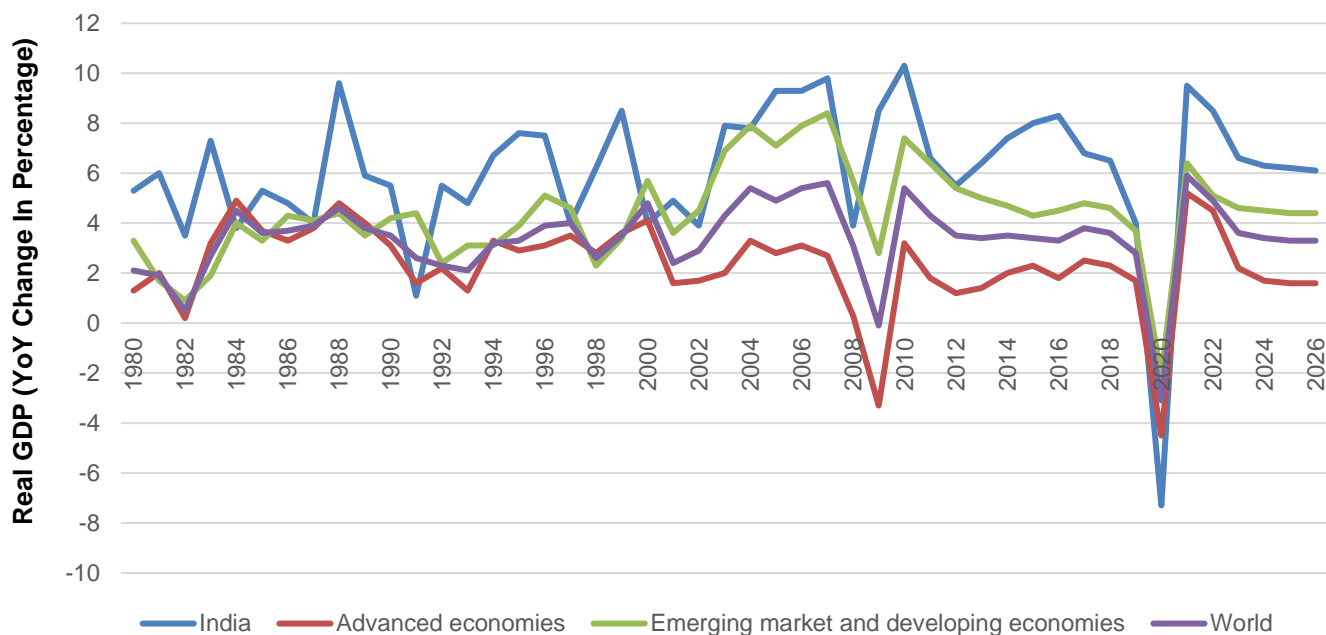
¹³ <https://www.unwto.org/news/tourist-numbers-down-83-but-confidence-slowly-rising>

¹⁴ <https://www.timesnownews.com/business-economy/india-revival-mission/article/indian-aviation-sees-recovery-in-september-with-37-month-on-month-growth-icra/662565>

moderate from 9% to 8.2% for CY 2022 according to latest IMF data, also the growth projection for 2023 is expected to be 6.9%.

India¹⁵ is expected to be a major driver of post pandemic recovery and exhibit a strong real GDP growth. This is attributed to a huge resurgence in pent up consumption demand and facilitation of investment demand through import substitution schemes as brought out above. India outlook versus rest of the economies is as depicted below:

Figure 3: India Outlook vs Rest of the Economies, GDP Forecast 1980-2026



Note: Real GDP growth of different regions. Actual data used till CY 2020. Forecasts from CY 2021 to CY 2026 https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD/IND. All IMF data are CY except India for which data is in FY

Table 4: COVID Impact and Recovery, India and Rest of the Economies, CY 2022- 2023

COVID Impact and Recovery	CY 2022	CY 2023 (Expected)
India	8.20%	6.90%
Advanced Economies	3.26%	2.36%
Emerging Market and Developing Economies	3.82%	4.40%
World	3.59%	3.55%

Source: IMF

¹⁵ <https://openknowledge.worldbank.org/bitstream/handle/10986/35647/9781464816659.pdf>

Table 5: GDP, Current Prices, India and Rest of World

GDP, current prices (Billions of U.S. dollars)	2019	2020	2021	2022
India	2832	2668	3178	3535
Advanced economies	51995	50733	56095	59248
Emerging market and developing economies	35542	34505	40198	44619
World	87536	85239	96293	103867

Note- Rounded off to nearest million. Frost & Sullivan Estimates for 2021 | Source: IMF

In 2019, Advanced Economies recorded a GDP of 51,995 B USD while EMDE's recorded a figure of 35,542 B USD. India's GDP, 2832 B USD, stood at 3.29% of the world GDP in 2019. In 2020, India GDP reduced to 2708 B USD, with a decrease to 3.23% of the world GDP reflecting the higher economic impact on India as compared to the rest of the world. In 2021, India GDP was expected to bounce back and was likely to be 3.13 % of the world GDP. In 2022, the Indian GDP growth was revised to 8.2% from 9% which was the previously forecasted value by IMF.

INDIA MACRO-ECONOMIC OUTLOOK

The Indian economy contracted by 7.3% in FY 2020-21¹⁶. However the Indian economy showed a strong rebound by 8.7%¹⁷ in FY 22. The growth projection for FY 2023 is 6.9%. The expected fast rate of growth will also have a multiplier effect on sectors like tourism and aviation.

India GDP Growth Forecast

Estimates from the Reserve Bank of India, peg the GDP at current prices to recover from the low seen in 2020. In 2014-2015 at current prices the GDP stood at 124 lakh crores INR. Till 2019-2020 it recorded a CAGR of around 8.5%¹⁸. In 2020-21, it dipped due to the effect of pandemic. Major reduction was seen in the second quarter. However, in subsequent quarters, GDP at current prices crossed the 50 lakh crores mark in FY 2020-2021 indicating the worst of the pandemic was behind us.¹⁹

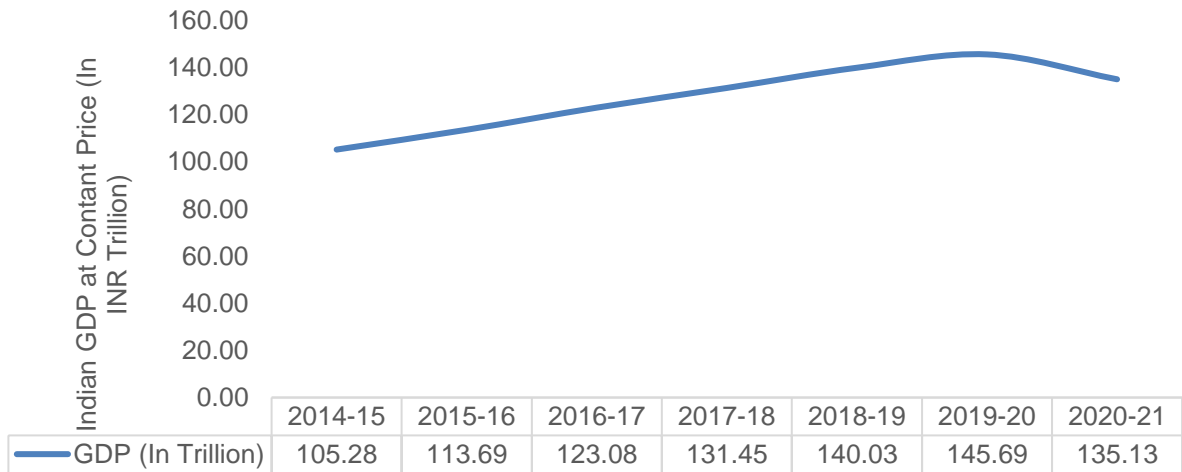
¹⁶ <https://www.livemint.com/news/india/indias-gdp-contracted-by-7-3-in-2020-21-with-revival-postponed-to-202223-11622469188437.html>

¹⁷ <https://www.india-briefing.com/news/indias-gdp-grows-8-7-percent-in-fy-2022-25216.html/>

¹⁸ <https://www.rbi.org.in/scripts/PublicationsView.aspx?id=20406>

¹⁹ <https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>

Figure 4: Indian GDP at Constant Prices (in INR Trillion)



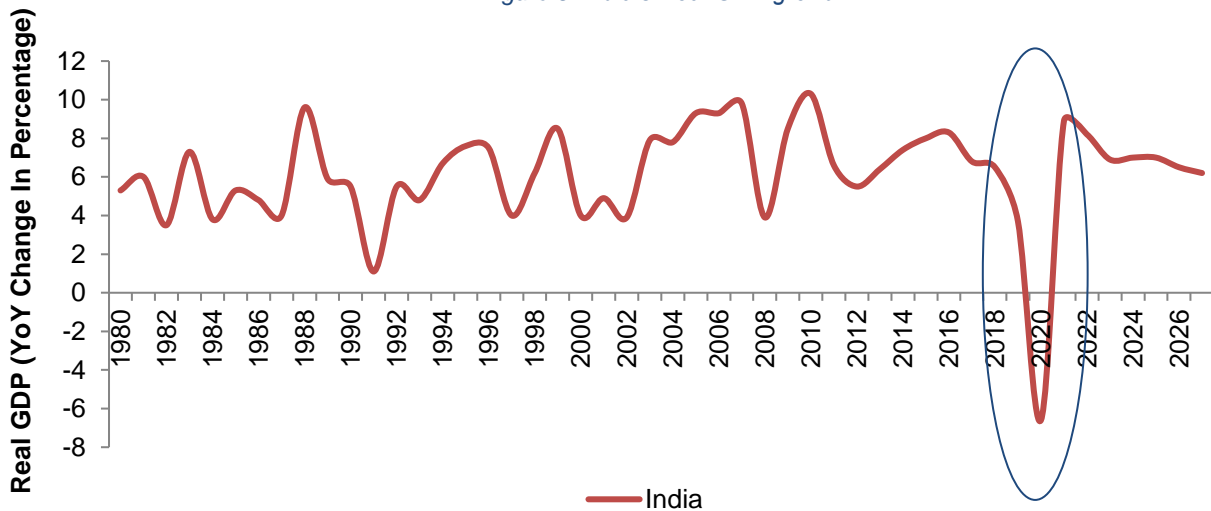
Note : GDP at constant prices increased at an increasing rate till it peaked in FY 2019-20. In FY 2021, it is expected to slump to 135.13 INR Trillion due to the pandemic. All data from RBI Handbook on Statistics. GDP at current prices in 2014-15, was INR 105.28 Trillion INR. In 2019, it peaked at 145.69 Trillion INR.

India was one of the few nations that announced supply-side policies to combat the pandemic. The key supply-side measures undertaken by the Indian government are as follows.

- Deregulation and liberalization of sectors that include agriculture, MSME's, labor, business process outsourcing, power, PSU's and minerals.
- Coercive steps were taken to strengthen productive capacity including but not limited to space, industry, defense, education and social infrastructure.
- Measures taken to facilitate ease of doing business were undertaken especially in financial markets, corporates, and administration.

The past real GDP growth and forecast are as below:

Figure 5: India's Real GDP growth



Note India's Real GDP growth from CY1980 till CY 2021. Forecasts given till CY 2026.

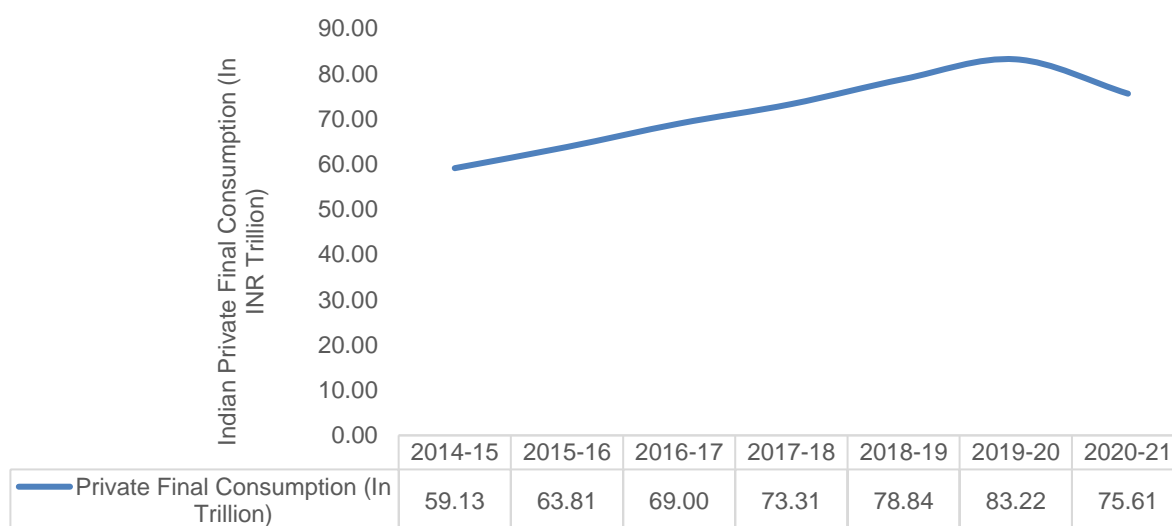
Source IMF Data Mapper, IMF shows CY data except for India which is given in FY

Trends in Private Final Consumption Expenditure and Per Capita Income levels

India has been registering a strong growth in per capita income till 2019 and is expected to resume the trend after the pandemic induced dip. Aviation and Tourism expenditure have strong dependency on the per capita income and are likely to have a strong exponential growth.

In an open economy private final consumption expenditure (PFCE) is a macroeconomic variable that plays a significant role in GDP determination. In a country like India with a huge consumer base, this statement holds strong. PFCE is a proxy variable for consumption demand. In 2014-2015, PFCE was INR 59.13 trillion INR. It peaked in year 2019-20, reaching INR 83.22 trillion INR at a CAGR of 4% before reducing to INR 75.60 trillion INR in 2020-2021 due to the effect of pandemic.

Figure 6: Private Final Consumption Expenditure at Constant Prices (in INR Trillion)



Note : Private Final Consumption Expenditure at Constant Prices given. A proxy variable for consumer demand. It reduced to 75.61 INR Trillion in FY 2020-2021. Source RBI Handbook on statistics.

Income Per Capita as well saw an increased and upward trend until it was hit by the pandemic. It is also observed that post opening up of the economy in 1991²⁰, per capita income, showed a marginal reduction but from 1999 onward rise in per capita income has been at an exponential rate.

Taking the base year as 2010, world bank data suggests that adjusted annual net national income per capita increased from USD 1,516 to USD1,822 in 2018. The latest estimates suggest that the per capita income as of 2019 was \$1,864. Post the COVID dip, the per capita income is once again expected to register high rate of growth in line with the strong bounce in GDP. Among other consumption related expenditure, aviation and tourism has strong dependency on the per-capita income and is therefore expected to grow exponentially in the future.

²⁰ <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=IN>

Population Growth

India is at a cusp of demographic dividend, with a large increase in the working age population. This would have obvious effects on consumption including aviation.

As of census 2001, India had a population of 1.028 billion with 532 million males and 496 million females. The state with the highest population was Uttar Pradesh with 166 million, and the state with the lowest population was Sikkim²¹ with 540 thousand people. The state with the highest population density in 2001 was West Bengal with 903 people per square kilometer while Arunachal Pradesh recorded a population density of only 13 per square kilometer in 2001.

As of the 2011 census, the total population stood at 1.2 billion people. India added around 181 million people to its population since 2001. Uttar Pradesh remained the state with the highest population, roughly around 200 million and Sikkim the state with the least population around 610,577 individuals. Based on sex, India had 623 million males as opposed to 586 million females as of 2011.

Estimates from World Bank suggests that Indian population was at 1.38 billion individuals as of 2020. This figure is expected to increase at a decreasing rate. The working age dependency ratio is one of the lowest at around 48%²².

It is to be noted that the nation is on the cusp of a demographic dividend. This would add to a significant number of individuals in the working-age population. Also, the latest estimates suggests that the total fertility rate of an Indian woman in her fertile age is converging towards below replacement levels of 2.1²³. This is expected to further result in a gain from demographic dividend as a demographic yield. The primary reason is, the number of dependents is significantly lesser and those in the working-age population are significantly more.

Impact of Macro-Economic Outlook on Aviation

Aviation sector is one of the fastest growing sectors in India. The need for high-speed mobility across the subcontinent facilitates the growth of aviation sector in India. Private Final Consumption Expenditure is a proxy variable for consumer demand and the upward trend in PFCE indicates that the consumer demand is also demonstrating an upward trend.

Along similar lines, the rise in middle-class high-income population would also result in families undertaking frequent vacations and actively seeking out employment in different parts of the countries. This would facilitate the need for high-speed mobility, for which the answer is aviation sector.

The above two factors would positively influence the aviation industry resulting an upward growth in aviation sector.

²¹ https://www.censusindia.gov.in/2011-common/census_data_2001.html

²² <https://data.worldbank.org/indicator/SP.POP.DPND?locations=IN>

²³ <https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=IN>

Review of Key Fiscal Measures

Key fiscal measures undertaken by the Indian government are enumerated in the succeeding paragraphs.

About 86.9 million farmers were to be benefitted from the PM- KISAN scheme, whereby the government announced that they'll disburse the first instalment upfront in April 2020. In the early stages of the pandemic, above the line measures²⁴ focused mainly on social protection and health care. These included in-kind transfer of essentials like food and cooking gas to vulnerable and low-income households amounting to around 1.2% of GDP. Wage support and employment provision to unskilled and semi-skilled vulnerable laborer amounted to about 0.5% of India's GDP.

Similarly, NREGA wages were revised from ₹182 to ₹202 which is expected to benefit 50 million families. One-time ex-gratia amount of ₹ 1000 was promised to the elderly, widows and disabled in two installments. 200 million Jan Dhan women account holders were given an ex-gratia account of ₹500 per month for three months.

Healthcare and other ancillary workers were insured amounting to 0.1% of the GDP. The move was welcomed by those employed in the health care sector.

Additionally, interest-free loans were advanced to states in October and November 2020 to recuperate from the effect of the pandemic. Aggressive public investment was undertaken by the government in the same period in key sectors and support schemes targeting certain economic activities with positive externalities.

Provisions of Atmanirbhar Bharat for Aviation

Aviation Maintenance Repair Overhaul (MRO) sector, airports, and better airspace utilization were also included in the Atmanirbhar measures. Airlines and consequently air traffic are likely to benefit from the announced measures as the provisions will reduce routing delays (reduction of fuel expenses) and reduce maintenance expenditure (maintenance is one of the major cost head of an airline apart from fuel and crew costs). The provisions for MRO are briefly elucidated below:

- Ministry of Civil Aviation (MoCA) introduced a new policy that includes leasing of land through open tenders and abolishing royalty charges by Airports Authority of India.
- The upper ceiling of setting up MRO facilities was increased from current 3-5 years to 30 years.
- Military and civil aviation convergence was proposed by the aviation minister.
- Rates of lease rental are left to process of bidding as opposed to having predetermined rates

²⁴ <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>

- Land to be allocated through open tenders.
- On expiry of contracts of MRO facility, the land given would be again introduced for bidding process
- Eight airports were identified to push for MRO facilities. They include Begumpet, Bhopal, Chennai, Chandigarh, Delhi, Juhu, Kolkata and Tirupati.

Unveiling the fourth tranche of Atma Nirbhar Bharat on 16th May 2020, Finance Minister, Sitharaman announced that many restrictions on use of Indian aerospace would be done away with making air travel more competitive and efficient for the end consumer. The measures included:

- Currently, only 60% of Indian air space is used for commercial flying. As a result longer routes are to be taken pushing the prices of aviation up. Plans are afoot to increase availability of air space for commercial flying.
- Six more airports are announced to be auctioned under Public-private-partnership (PPP) model. The government is expecting an annual income of around INR 2300 crores from this.
- Additional investment of INR13,000 crores to be made by private players in 12 airports auctioned in first and second round of the bidding process
- AirSewa 3.0 is being introduced to look into passenger grievances. It is a government portal where passengers can escalate their ticket to an escalation officer.
- Under regional air connectivity scheme UDAN, five more airports would be operationalized They include Keshod, Deoghar, Gondia Sindhudurg and Kushinagar airports.

GLOBAL AIR TRAVEL MARKET

The Global aviation sector had taken a hit due to the COVID-19 induced lockdowns, however the revival phase has begun. The Global airlines are planning to resume their long-haul routes, specially driven. This holds good for the Indian domestic market also; it is interesting to note that a few Indian Tier-2 and Tier-3 airports have surpassed the Pre-COVID traffic numbers. The Indian Aviation is expected to recover faster than expected, it is important to note that May 2022 Domestic Traffic numbers have optimistic growth towards reaching Pre COVID passenger numbers at an accelerated pace.

Global Air Travel Industry

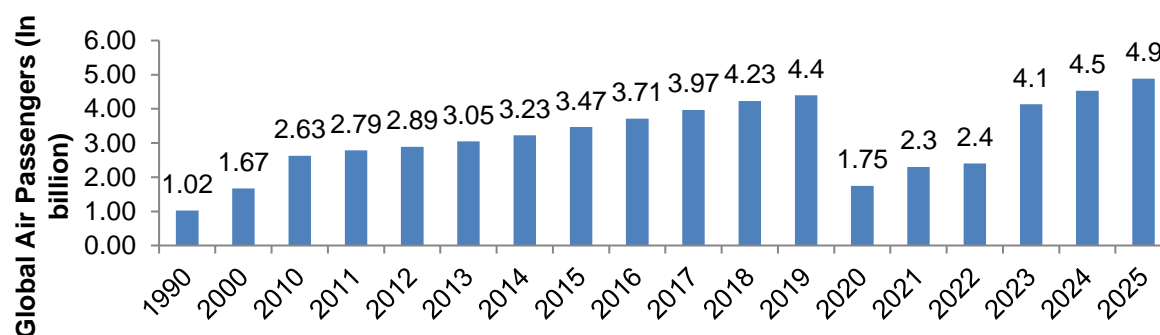
The volume of global air passengers was around 1 billion in 1990 and it increased 4X times to surpass 4 billion passengers in 2019. During the past three decades the global aviation sector has witnessed 6 key incidents²⁵ that decelerated the growth of passengers. The 6 incidents were:

- Gulf War 1990
- Asian Financial Crisis 1997
- World Trade Center terrorist attack of 9/11- 2001
- SARS pandemic of 2003
- Financial Crisis 2008
- Global COVID 2019 pandemic

The Global aviation industry has been quick to recover in the past; however the airlines have been struggling to recoup since COVID-19. The COVID-19 related losses to global airlines are estimated at around USD 200 billion²⁶ as a result of the pandemic. In spite of this, tourism and travel is making a slow but steady recovery. Mass vaccination drives, softer travel restrictions and use of digital and electronic tools to gauge the susceptibility of an individual to the pandemic are contributing to increased tourism volume and easing up of border restrictions.

In CY 2020, the global aviation sector experienced a drop in the number of overall passengers to 1.8 billion which was 60.2% lesser than the 4.4 billion passengers in 2019.

Figure 7: Global Air Passenger Traffic CY 1990- CY 2025 (In Passenger Billion)



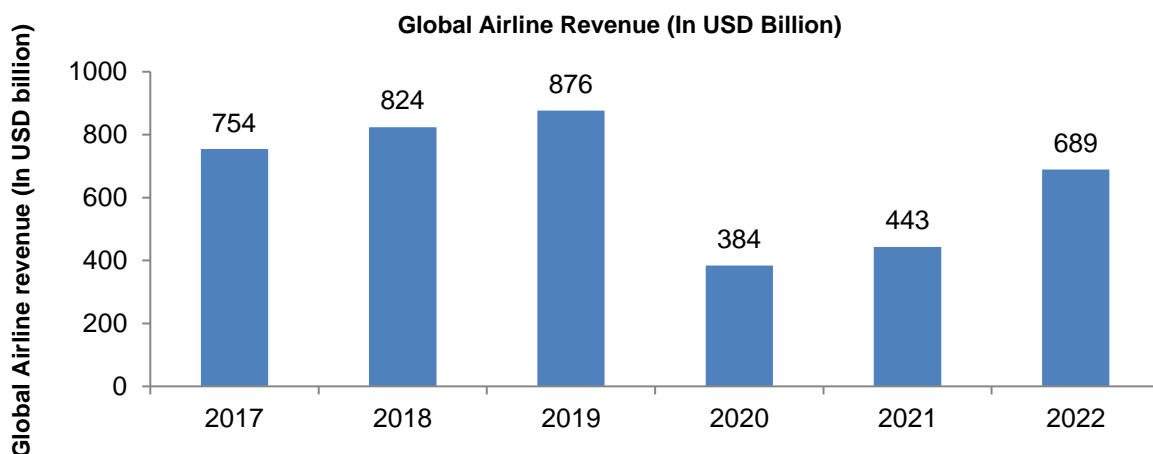
²⁵ <https://www.iea.org/data-and-statistics/charts/world-air-passenger-traffic-evolution-1980-2020>

²⁶ <https://www.livemint.com/news/india/iata-sees-sharp-fall-in-airline-losses-in-2022-11633353481570.html>

Note: Global Air Passenger Traffic between CY 1990 to CY 2021 are actual, while CY 2022 to CY 2025 are estimates | Source : IATA

It is expected that the Global air travel passengers would reach 2.4 Billion in CY 2022 and further increase to 4.1 Billion passengers in CY 2023²⁷.

Figure 8: Global Airline Revenue CY 2017- CY 2022 (In USD Billion)^{28 29}



Note: Airline Revenue 2017-2022. CY 2017 to CY 2020 are actuals, while CY 2021 and CY 2022 are estimates | Source: IATA

As compared to 2020, the overall global airline revenue for the calendar year 2021 is expected to grow by roughly 26.2% to USD 487 billion. The future growth of global airline revenue for CY2022 is poised to be 35.11%.

Correlation of GDP Growth with Aviation

A rise in GDP contribution accounts for an increased spending within the aviation sector. Figure 8 below shows the co-relation of aviation trips per capita and GDP per capita. As the GDP per capita increases, so do the trips per capita. Singapore ranks highest in both the parameters, while India ranks lowest in the countries which have been compared. Due to increasing GDP per capita, and better demographics the Indian aviation sector and the number of trips per capita have a huge potential to grow.

Figure 9 below shows the correlation between GDP growth and Revenue Passenger kilometers. Except for 2020, the aviation industry average growth rate was recorded at

²⁷ [https://www.iata.org/en/pressroom/2022-releases/2022-03-01-01/#:~:text=Geneva%20%2D%20The%20International%20Air%20Transport,%25%20of%20the%202019%20total\).](https://www.iata.org/en/pressroom/2022-releases/2022-03-01-01/#:~:text=Geneva%20%2D%20The%20International%20Air%20Transport,%25%20of%20the%202019%20total).)

<https://www.fortuneindia.com/macro/global-airline-industry-to-return-to-profit-in-2023-iata/108651#:~:text=%2C%E2%80%9D%20he%20adds.-,Industry%20revenues%20are%20expected%20to%20reach%20%24782%20billion%20in%202022,about%2093.3%25%20of%202019%20levels.>

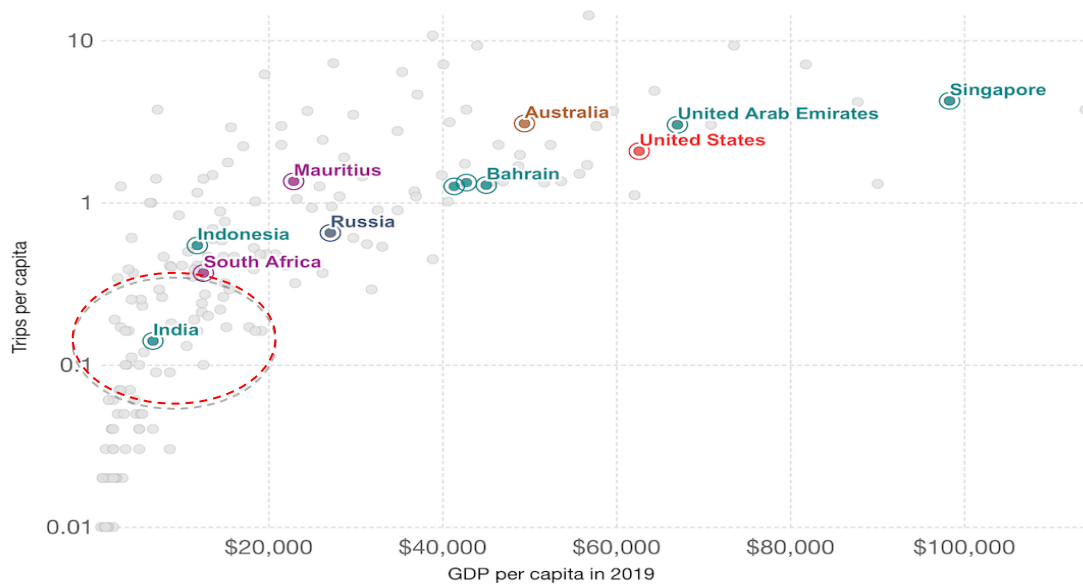
²⁸ <https://www.iata.org/en/iata-repository/publications/economic-reports/airline-industry-economic-performance---october-2021---report/>

²⁹ <https://www.iata.org/en/pressroom/pr/2017-12-05-01/>

5%-6%, annually which indicates that aviation sector grows at a faster rate than the GDP growth. The correlation between GDP and Aviation is high. India's GDP growth to domestic air traffic growth is 1.8x and on total air traffic growth is 1.4x from FY 2010 to FY 2020.

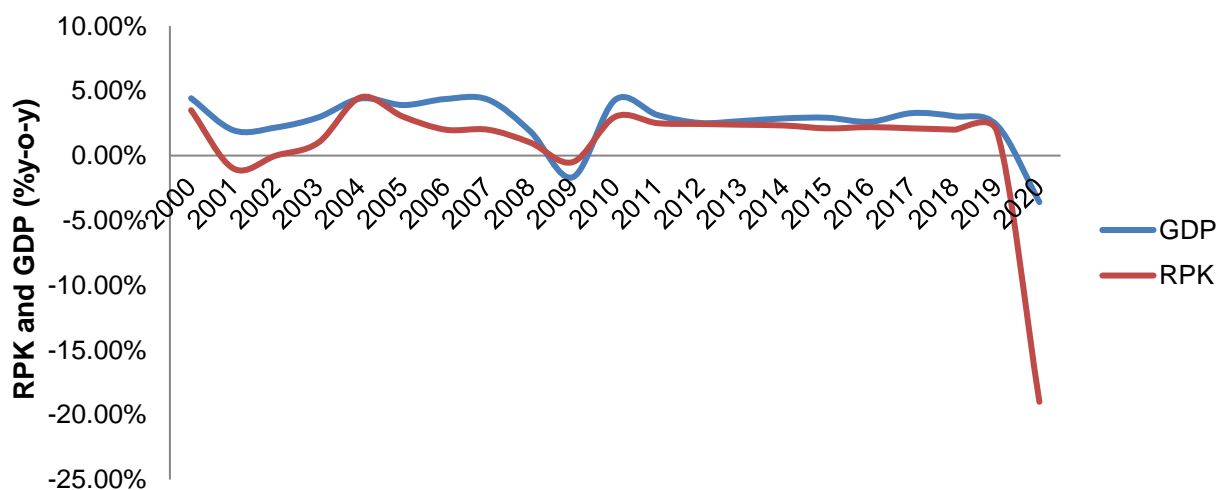
The aviation sector's direct impact on GDP is recorded to be USD 3.5 trillion, i.e. 4.1% of Global GDP in 2019. By the year 2038, the aviation sector is expected to account for USD 6.3 trillion of Global Economy.

Figure 9: Flyer Frequency and GDP per Capita, CY 2019³⁰



Source : IATA

Figure 10: GDP versus RPK³¹



Note: Relationship between Global GDP and RPK. Dips in 2009 and 2020 were respectively due to GFC and COVID-19induced lockdowns | Source: IATA

³⁰ <https://ourworldindata.org/grapher/number-air-trips-vs-gdp?country=IND~IDN~USA~RUS~AUS~MUS~SGP~KOR~ZAF~ARE~BHR~JPN>

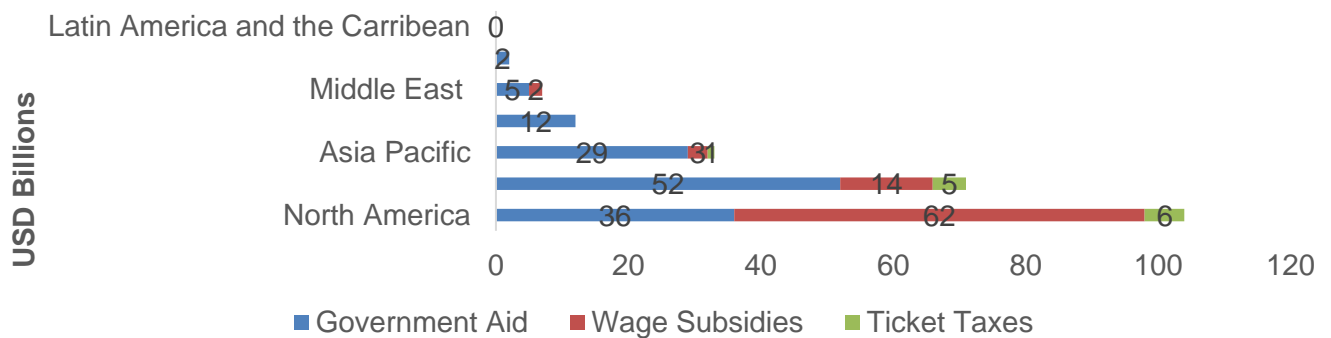
³¹ <https://www.iata.org/contentassets/a686ff624550453e8bf0c9b3f7f0ab26/wats-2021-mediakit.pdf>

Government Aid to Airlines ³²

The fiscal measures taken by the various governments across the world have helped the local economies in reducing the negative impact of COVID-19. Similar measures were also taken for the aviation sector in some advanced economies in the form of government aid, wage subsidiaries and ticket taxes. The measures acted as indirect boost to reinstate the travel in these regions.

On studying the government aid provisions for COVID-19, it is seen that largest aid was given in North America followed by Europe and APAC. The quick recovery of nations stationed within North America, Europe and APAC is predominantly due to the increased COVID-19 provisional investments made in airlines within these regions.

Figure 11: COVID-19 Related Aid provided to Airlines³³



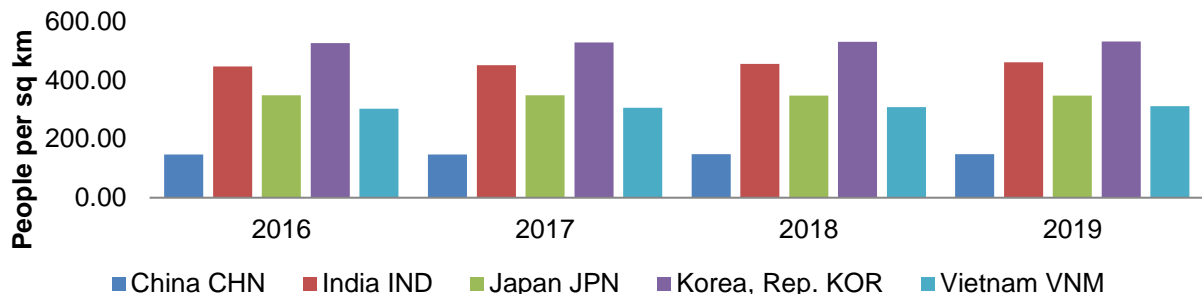
Note: Measures taken by the government to curtail the spread of COVID-19 and the impact of the pandemic | Source: World Bank

Asia and APAC Aviation - Future Opportunities

China, Indian, Japan, Korea and Vietnam were chosen for a comparative study of the aviation growth for the purpose of comparing countries which have either similar demographic/ high GDP growth.

Comparison of population density, GDP per capita, and passengers travelling by air and rail are as shown below (Source: World Bank) .

Figure 12: Population Density within Asia, 2016-2020³⁴

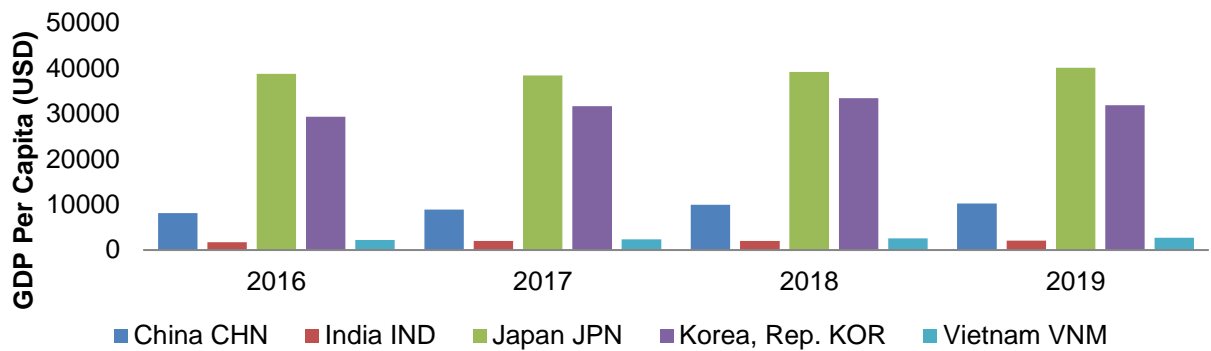


³² <https://www.iata.org/en/publications/annual-review/>

³³ <https://www.iata.org/en/publications/annual-review/>

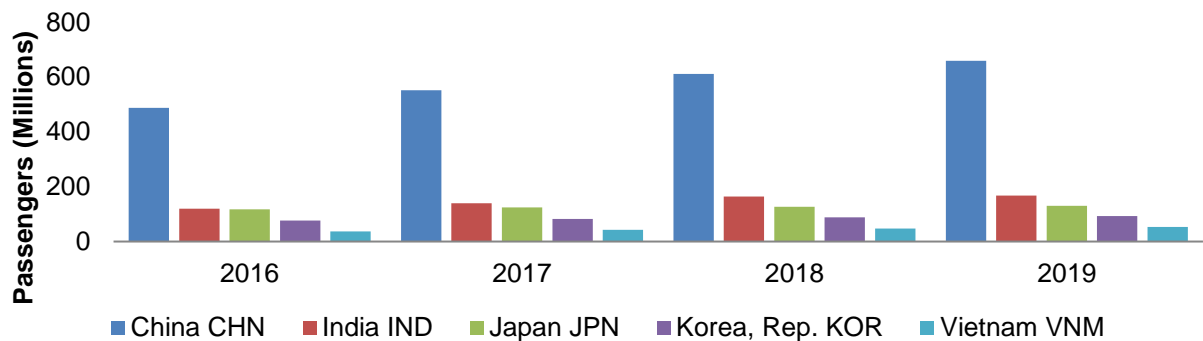
³⁴ <https://data.worldbank.org/indicator/EN.POP.DNST>

Figure 13: GDP per Capita, Asia³⁵



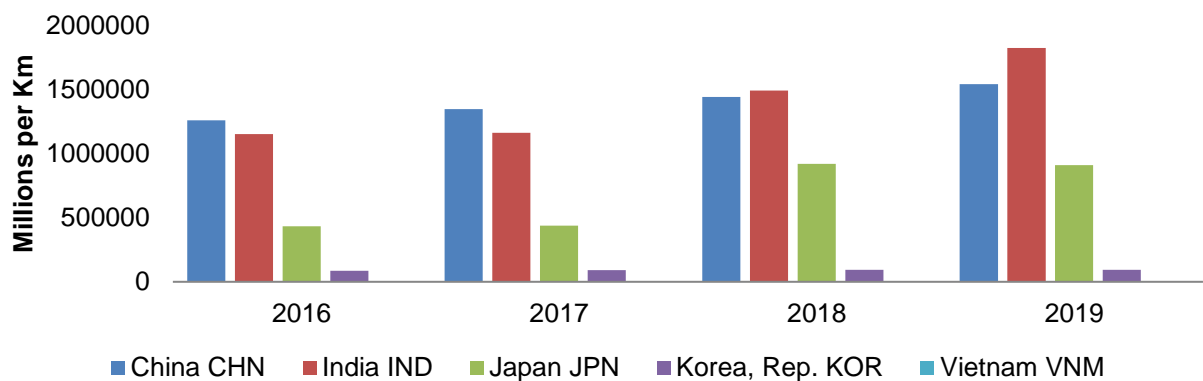
Source: World Bank

Figure 14: Passengers Transported, By Aircraft, In Millions³⁶



Source : World Bank

Figure 15: Passengers Transported, By Rail, In millions per Km³⁷



Note: Rail Passenger Traffic for China, India, Japan, South Korea and Vietnam | Source: World Bank

³⁵ <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?view=chart>

³⁶ <https://data.worldbank.org/indicator/IS.AIR.PSGR>

³⁷ <https://data.worldbank.org/indicator/IS.RRS.PASG.KM>

The comparison shows that

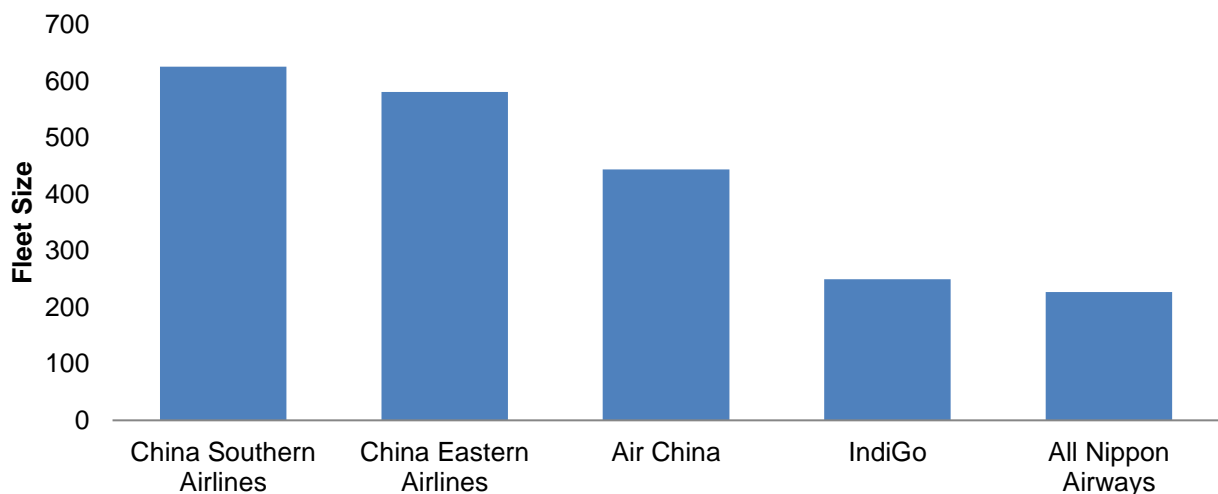
- India has a high population density
- It has low GDP per capita, however the GDP growth is the fastest among the compared countries, it is expected to grow at 8.3% in CY 2021, and between 6.5-6.9% in CY 2022-2026. This is much higher than the other countries as also projected in Figure 3 of this report
- India has a low air travel propensity currently as shown in the figure in the air propensity section; however, this is expected to grow exponentially in the next few years.

From the above, it may be surmised that Indian aviation sector has a huge potential to grow due low base effect, GDP growth and demographics.

On studying the overall market, China is anticipated to account for the largest share within the compared countries. China Southern Airlines, China Eastern Airlines and Air China are three of the key players within the South Asian Aviation market.

In India, IndiGo accounts for over 50% of passenger demand as of today. On a regional scale, IndiGo ranks at the third position. The fleet size of the largest airlines in the compared countries is as below:

Figure 16: Key Airlines, By Fleet Size³⁸



Source : Information Design

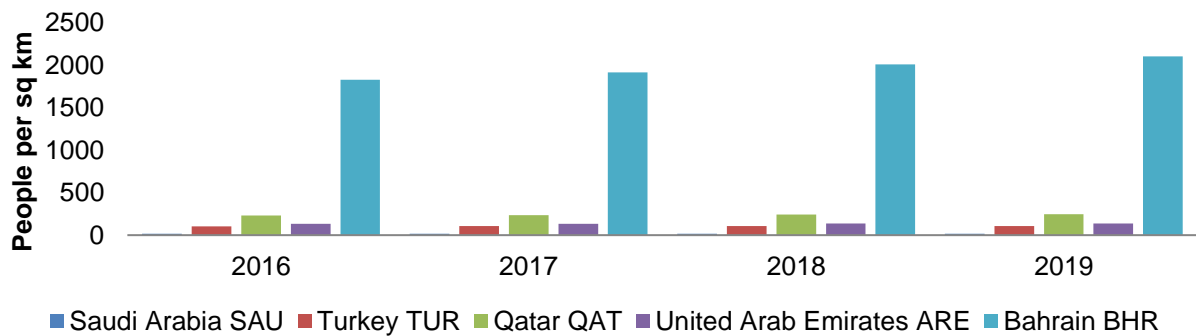
³⁸ <https://www.id1.de/2021/07/05/spotlight-on-asia-top-10-biggest-asian-airlines-by-fleet-size/>

Middle East- Future Opportunities

Saudi Arabia, Qatar, UAE, Turkey and Bahrain were chosen for a comparative study of the aviation growth for the purpose of comparing countries which have either similar demographic/ high GDP growth.

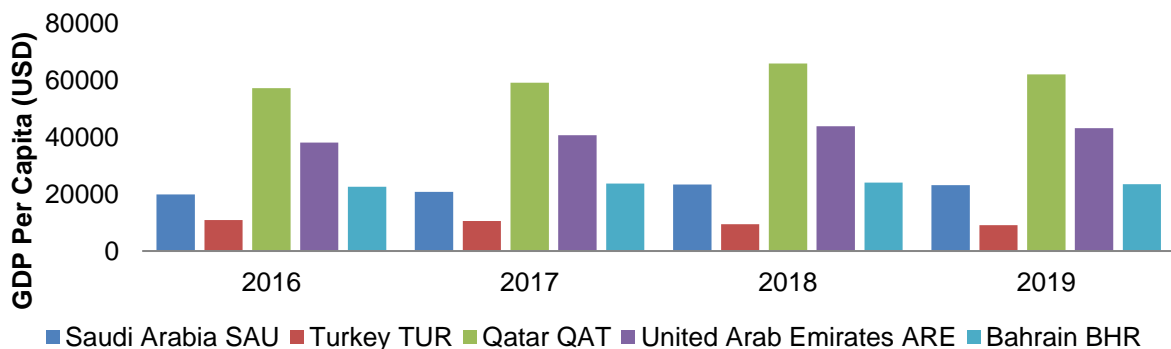
Comparison of population density, GDP per capita, and passengers travelling by air and rail are as shown below.

Figure 17: Population Density within Middle East, 2016-2020³⁹



Source: World Bank

Figure 18: GDP per Capita, Middle East⁴⁰



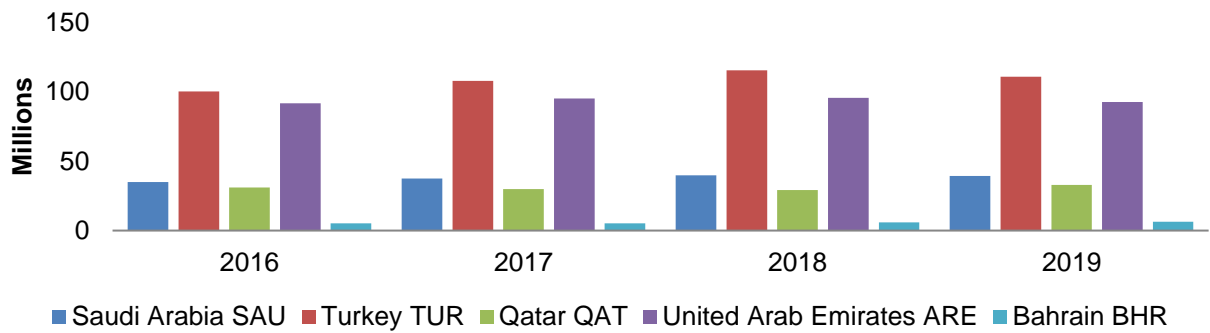
Source: World Bank

Qatar and Saudi Arabia are the countries which have the highest GDP per Capita. The GDP per Capita of Qatar is around USD 57160 and that of UAE is around USD 40600. The least per Capita was in Turkey which was around USD 10000.

³⁹ <https://data.worldbank.org/indicator/EN.POP.DNST>

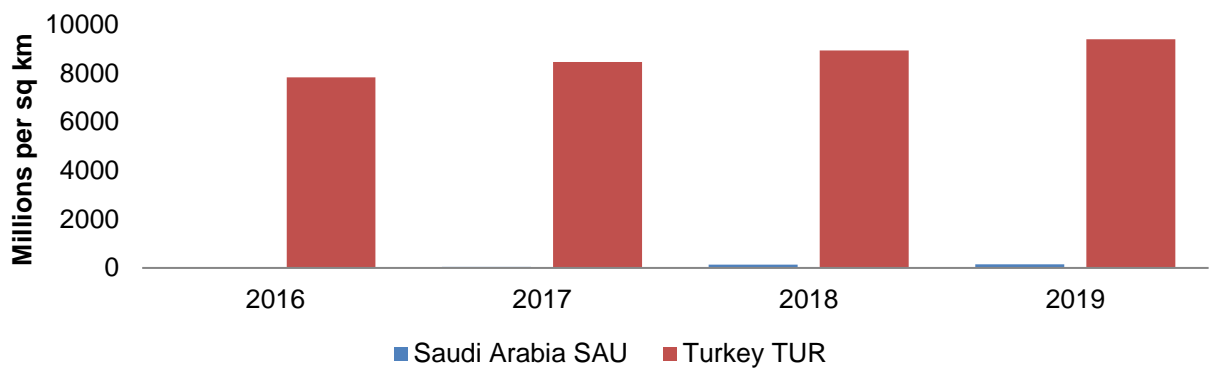
⁴⁰ <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?view=chart>

Figure 19: Passengers Transported, By Aircraft, In millions⁴¹



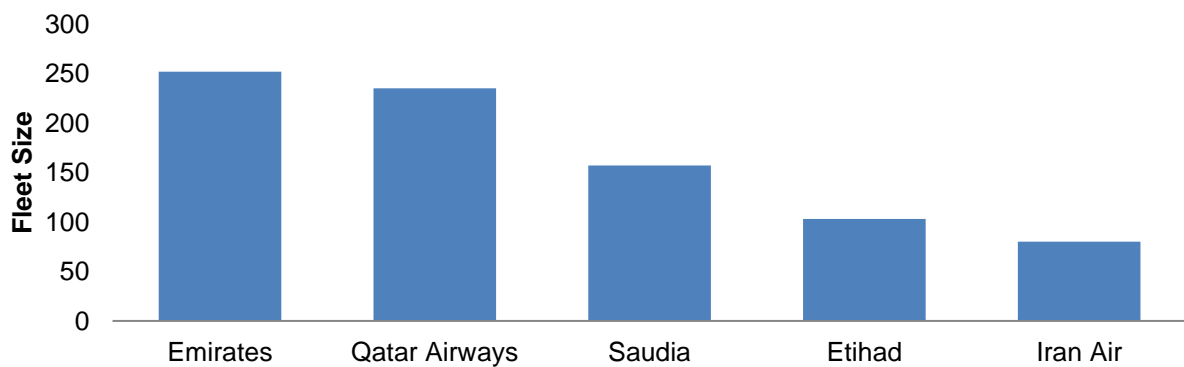
Source: World Bank

Figure 20: Passengers Transported, By Rail, In millions per Km⁴²



Source: World Bank

Figure 21: Key Airlines, By Fleet Size⁴³



Note: Key Middle Eastern Airlines by Fleet Size | Source : Information Design

The comparison shows that:

41 <https://data.worldbank.org/indicator/IS.AIR.PSGR>

42 <https://data.worldbank.org/indicator/IS.RRS.PASG.KM>

43 <https://www.id1.de/2021/07/05/spotlight-on-asia-top-10-biggest-asian-airlines-by-fleet-size/>

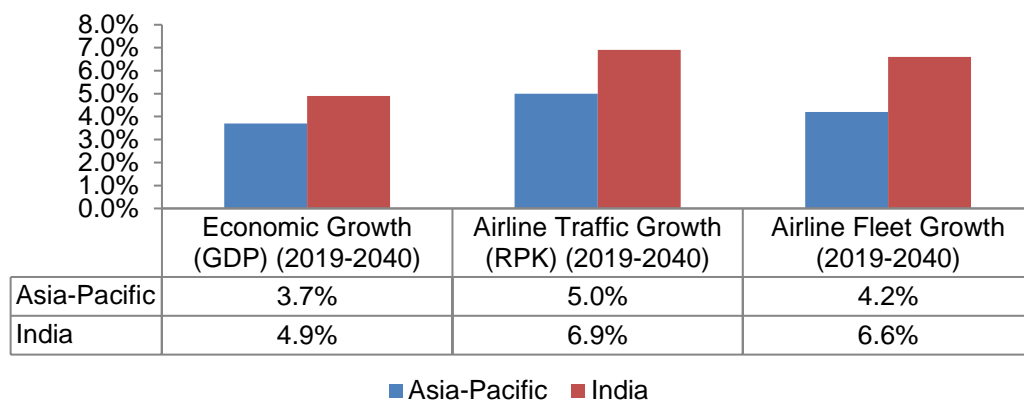
- Saudi Arabia has the highest population density and Qatar has the highest GDP per Capita.
- Turkey has the highest number of passengers transported via aircraft and by rail.

Bahrain, Qatar and UAE are recorded to be the key economies within the Middle East. Countries like Saudi Arabia have been investing heavily in economic and social reform programs like Vision 2030 in order to bolster their economy and make it less dependent on oil and gas. . A comparative study shows that the aviation sector is expected to account for a larger share of the Middle Eastern Market as opposed to the railway industry. Some of the key airlines within the Middle East include Emirates, Qatar Airways and Saudi.

India and APAC Aviation Sector

The growing markets within India and South Asia are some of the key drivers for the growth of the overall Asian aviation sector. South Asia is forecasted to have a passenger growth rate of 6.6% till the year 2040. The passenger growth prospects within this region is considered to be strong due to the presence of India. India's economy is anticipated to grow with a CAGR of 5.1% between 2021-2040 The demographic factors and the high propensity to travel within India is expected to accelerate the growth associated with the Indian aviation market. India has a highly competitive domestic market catered to by domestic carriers. Policies that promote airport infrastructure and the imposition of regulations that support the aviation sector is expected to be a key driver for this market. The induction of project UDAN is expected to be one of the key contributing factors to the Indian Aviation Industry⁴⁴

Figure 22: Aviation Industry Growth for India and APAC, Asia, CY 2019- CY 2040



Note: RPK (Revenue Per Kilometer) The above projections have been taken from Commercial Market Outlook Boeing. The data for India as shown is actually a combination of both India and Pakistan. Since India for 90% of the combined India and Pakistan market, the projections are representative of Indian projections; Source: Boeing CMO, 2021-2040

⁴⁴ <https://www.boeing.com/commercial/market/commercial-market-outlook/>

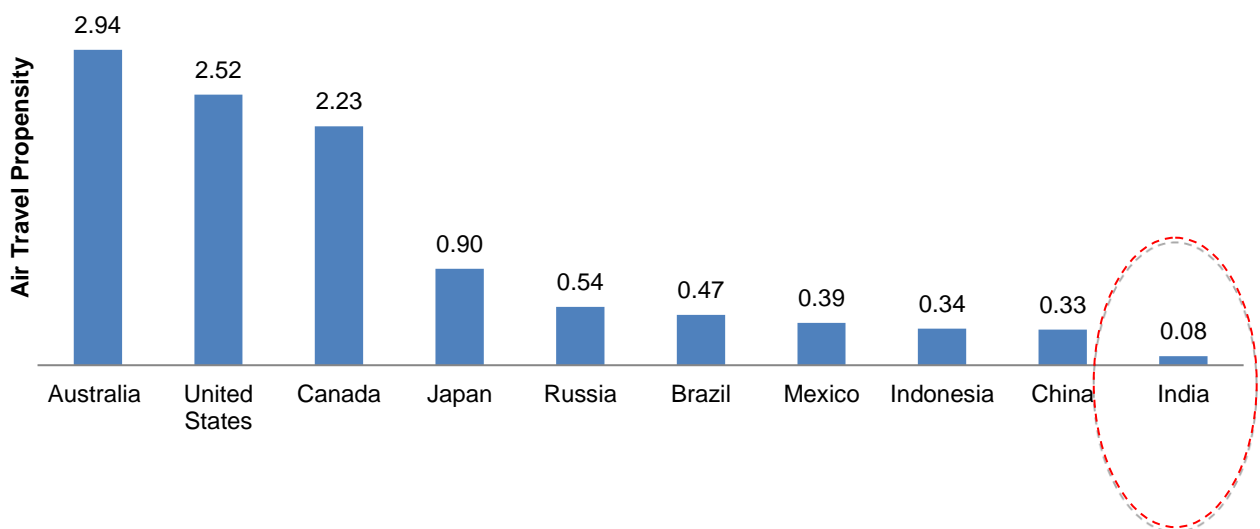
INDIAN AIR TRAVEL MARKET OVERVIEW

India Volume Growth Versus Other Countries and Way Forward

Air and Rail Travel Propensity

Travel propensity is defined as the frequency of travel for a given individual within a nation. It is ratio of passenger traffic to overall population within a given region. The air travel propensity of some key countries is as given below.

Figure 23: Air Travel Propensity (CY 2020)⁴⁵⁴⁶



Note: Air Travel Propensity for key Economies including: US, China, India, Indonesia, Japan, Brazil, Russia, Australia, Mexico, and Canada | Source : World Bank

The top 4 countries with the highest propensity to travel via Air are noted to be Australia, US, Canada and Japan.

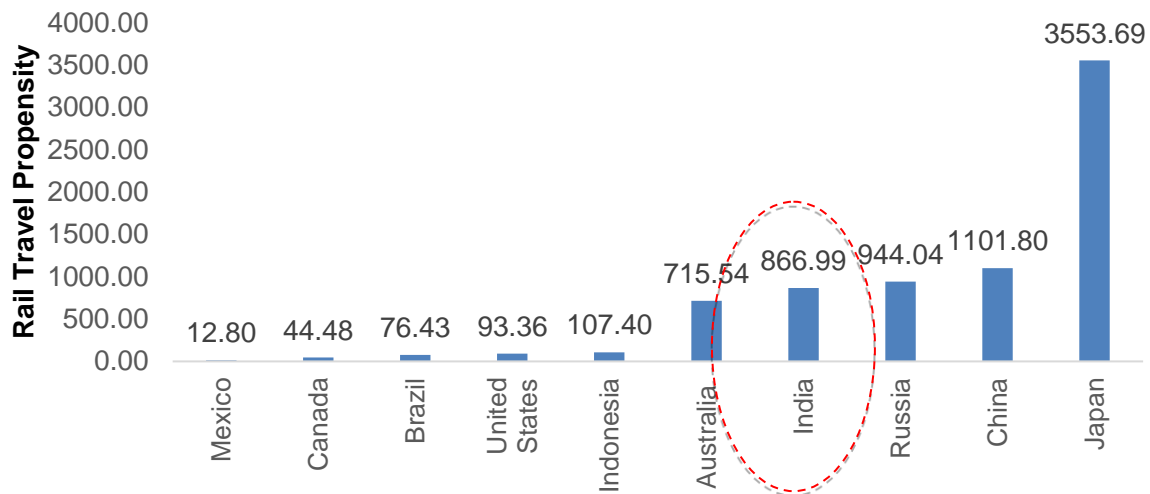
The countries with low air travel propensity are the BRIC countries, Indonesia and Mexico. Amongst the least air travel propensity countries, India is the lowest, however it is also expected to be the third largest air travel market by 2030 according to IATA (International Air Transport Association).

Countries like China and India have a low propensity to travel via air owing to their developed infrastructure in terms of rail travel. The same reflects in the rail travel propensity as shown below.

⁴⁵ <https://data.worldbank.org/indicator/SP.POP.TOTL>

⁴⁶ <https://data.worldbank.org/indicator/IS.AIR.PSGR>

Figure 24: Rail Travel Propensity (CY 2019) ⁴⁷⁴⁸



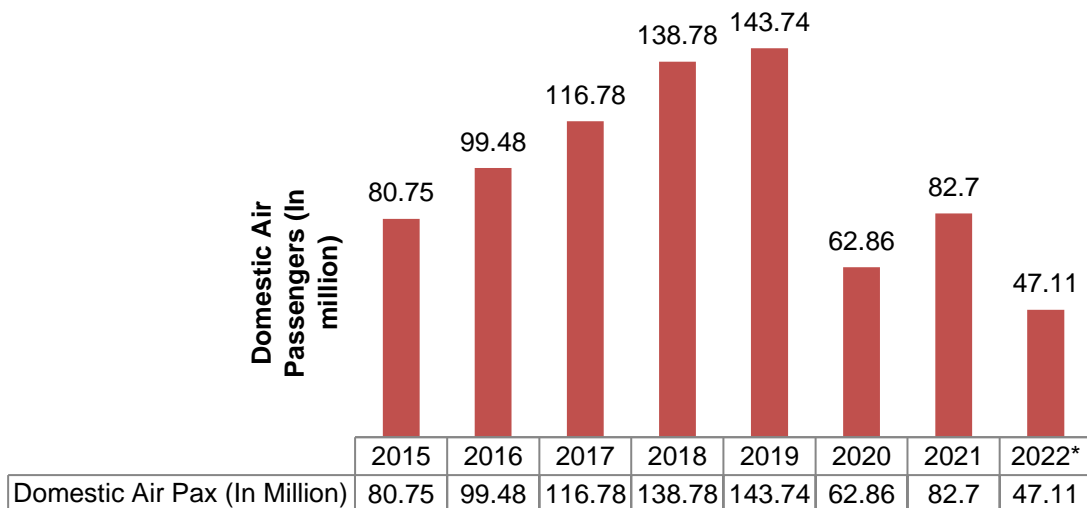
Note: Rail Travel Propensity for key Economies including: US, China, India, Indonesia, Japan, Brazil, Russia, Australia, Mexico, and Canada | Source : World Bank

The top 3 nations in terms of Rail Travel are seen to be Japan, China and India. On a comparative basis, Japan is seen to have the highest propensity to travel via rail. The Indian rail travel propensity is among the top 5 globally, indicating a very high penetration rate which presents attractive opportunity for services including railway lounges .

India's Air Traffic Growth Trend

Domestic Traffic

Figure 25: India's Domestic Air Traffic, CY 2015-2021 and Jan-April 2022⁴⁹



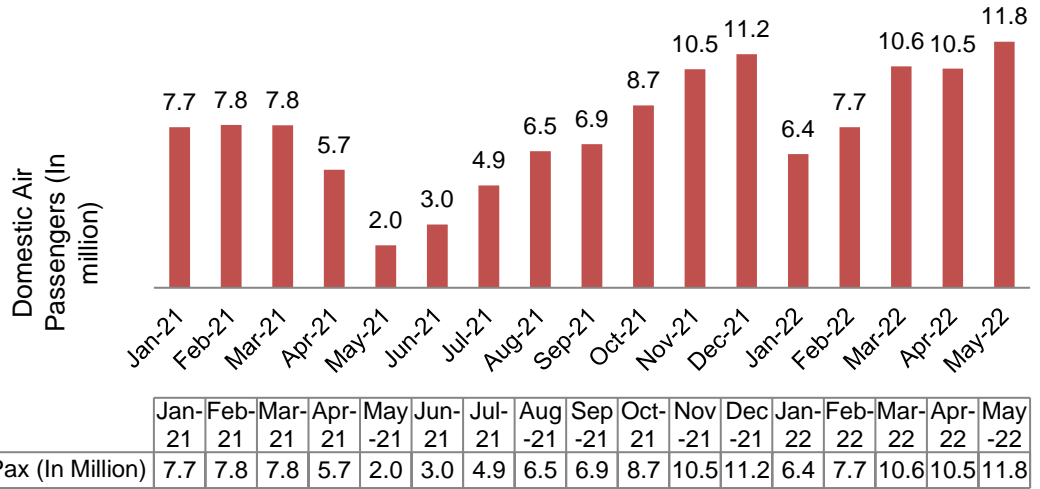
Note: Domestic Air Traffic in India (millions). All the above data are CY 2015-2021, 2022* numbers are Jan to May only; Jan-Dec values for rest of the years | Source: DGCA

⁴⁷ <https://data.worldbank.org/indicator/SP.POP.TOTL>

⁴⁸ <https://data.worldbank.org/indicator/IS.RRS.PASG.KM>

⁴⁹ <https://data.worldbank.org/indicator/IS.AIR.PSGR?locations=IN>

Figure 26: India's Domestic Air Traffic, CY 2021 and Jan-April 2022

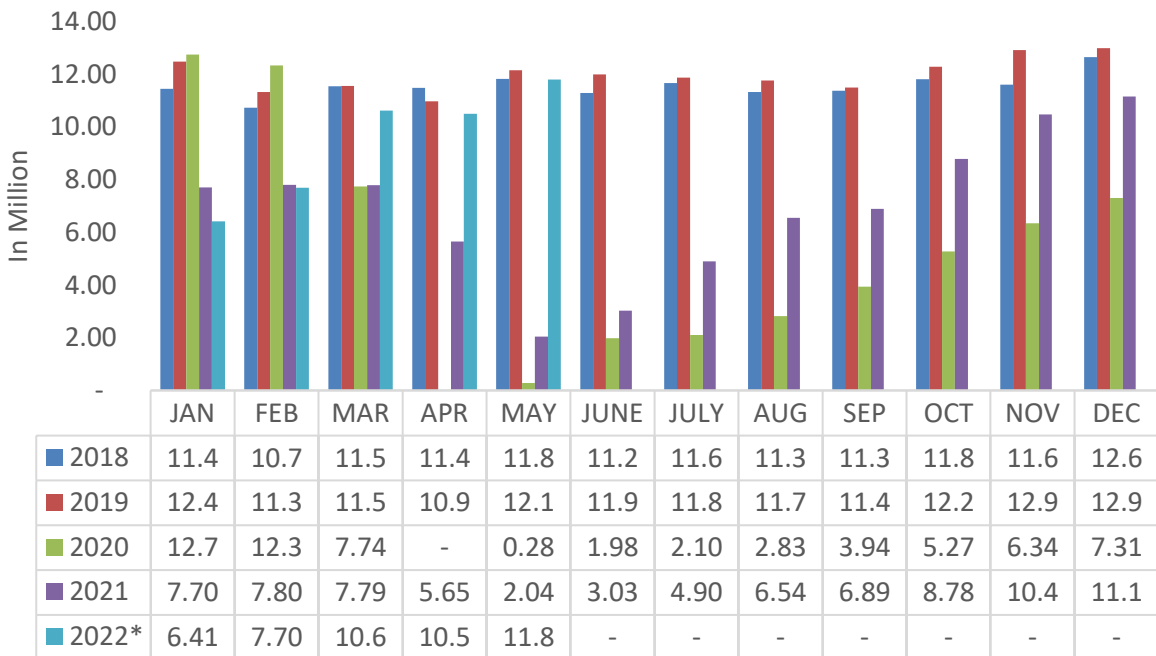


Source: DGCA

Between the years 2015-2019 the CAGR for the domestic air travel industry was noted to be 12%. However, due to the onset of COVID-19, and the Indian aviation market is expected to experience a linear recovery.

Note: Passenger Traffic for Jan- December (2018 to 2022), Data for 2022 has been recorded from Jan to May | Source : DGCA

Figure 27: Change in Passenger Demand for Jan-Dec 2018-2022⁵⁰

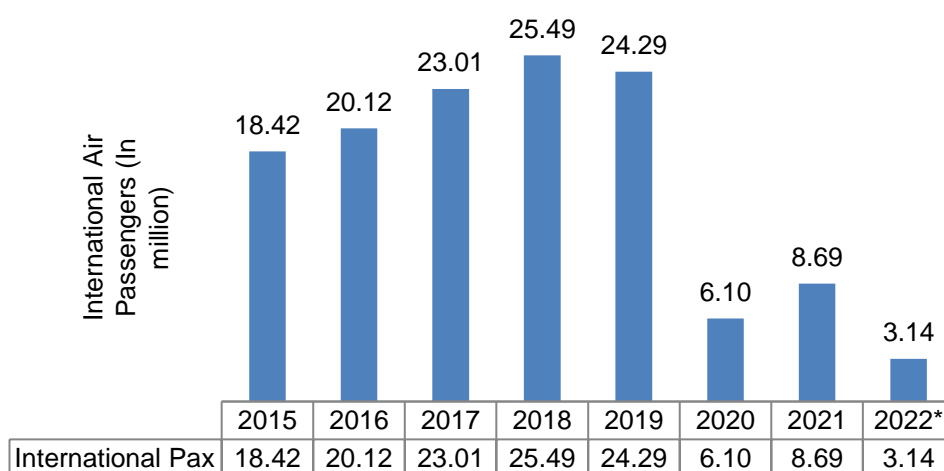


⁵⁰ <https://www.dgca.gov.in/digigov-portal/?page=259/4184/servicename>

International Traffic

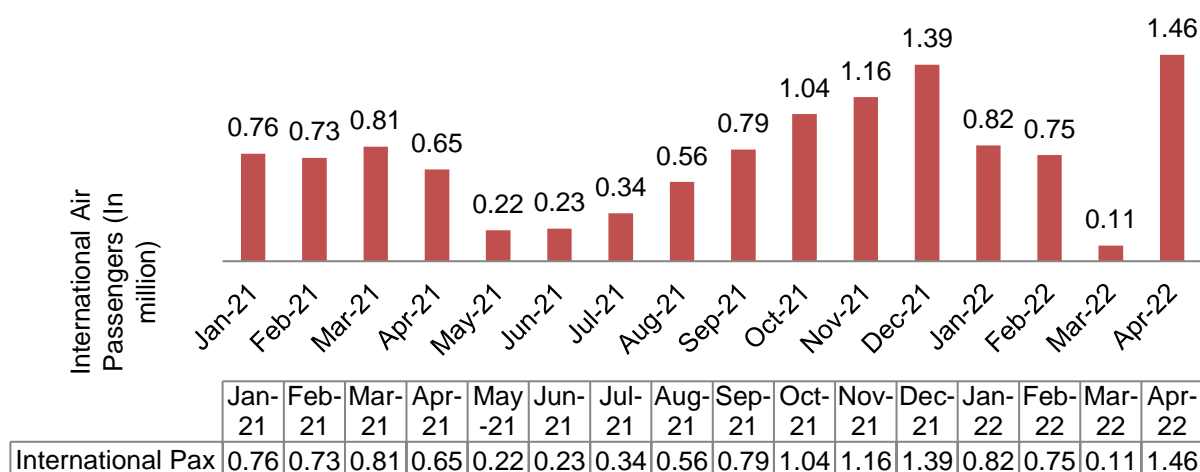
As per the graph below, it is observed that the CAGR for international Air Travel between 2015-2019 was 6%. The international air passenger traffic in India increased from 18.42 million in 2015 and increased to 24 million in 2019. The 2019 international air passengers numbers would have surpassed 25 million (2018 values) in a normal scenario. However, COVID-19 impacted international air travel in latter half of 2019 and continued to in 2020, 2021 and 2022. This is a temporary dip in the international air travel passengers and the market is expected to recover back to pre COVID-19 scenario by 2024-25.

Figure 28: International Air Traffic, Arrival and Departure, millions CY 2015-2021⁵¹



Note: 2022Jan-April | International Passenger Traffic, CY 2022 Values only present for March and April, Jan and Feb have been extrapolated | Source: DGCA.

Figure 29: International Air Traffic, Arrival and Departure, millions CY Jan 2021- April 2022



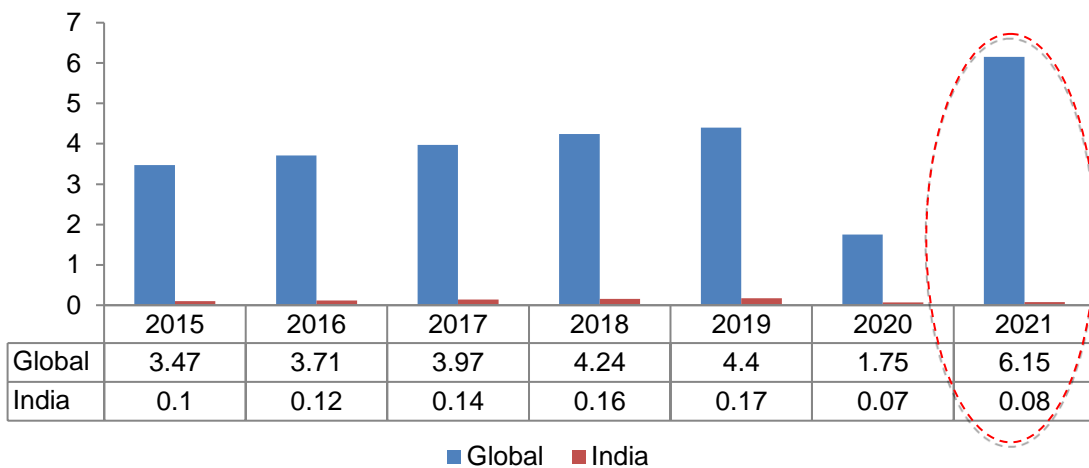
| Note: Dip in May and June of 2021 was due to 2nd wave of COVID19 but the market has been on an increasing trend Source: DGCA

⁵¹ <https://www.livemint.com/news/india/india-extends-ban-on-scheduled-international-flights-till-oct-end-details-here-11632830657869.html>

The imposition of COVID induced travel bans led to a reduction in the international passenger demand. The scheduled international passenger services in India were suspended since March 2020. The ban on overseas flights was extended up to end of October 2021 and the ban ended on 27th March 2022. Special International flights have been operated under the “Vande Bharat Mission”, since May 2020. Under the bilateral “air bubble” arrangements were made with selected countries to facilitate international air travel. India has formed the air-bubble pact with countries including UK, US, Kenya, UAE, Bhutan, and France.⁵²

Overall, the average historic global growth rate pre COVID19 for passengers transported is recorded to be 4.86% (2015-2019) while India’s is 11.12% for the same period.

Figure 30: Comparison of India and Global Air Traffic, Billions CY 2015-2022, Jan- December



Source: IATA

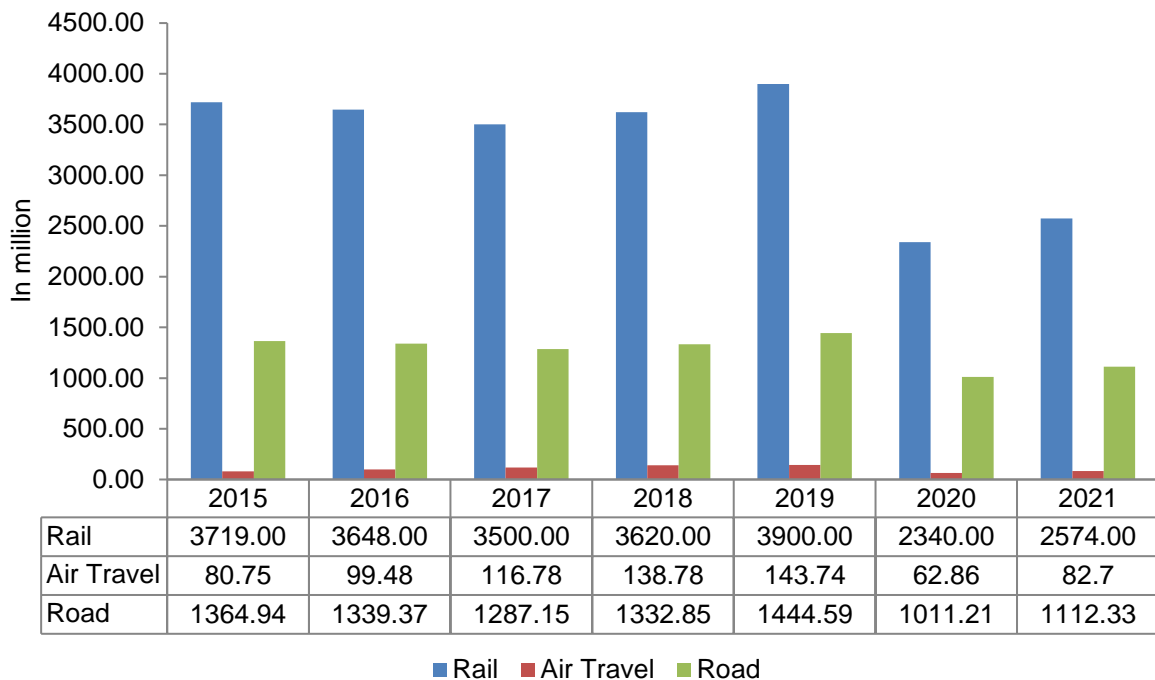
The following are the factors which are expected to contribute to the overall Indian Air Travel growth:

- Jump in India’s travel and tourism competitiveness
- Jump in ease of doing business
- Growth in business travel
- Reducing cost of air travel
- Increased travel in Tier-2 and Tier-3 destinations

1) Jump in India's Travel and Tourism Competitiveness

Study of Various Modes of Transport

Figure 31: Study based on Various Modes of Transport, FY 2015- FY 2021⁵³



Source : Indian Railway, Airways Magazine | Road Travel is estimated.

The number of travelers preferring air travel has been increasing and has almost doubled between 2015-2019. However, the increase of rail and road travelers during the period 2015-2019, has been much lower. The overall economic growth supported by various other factors has increased the air travel propensity of Indians.

India is also expected to have an increased affinity towards tourism supported by government initiatives. In 2021, the finance ministry announced a scheme that provided financial support to 10,700 government recognized tourist drives. Further, to provide an impetus to the tourism industry, the finance ministry announced a scheme to issue one-month tourist visas free of charge to the first 500,000 customers, valid until March 31, 2022.⁵⁴

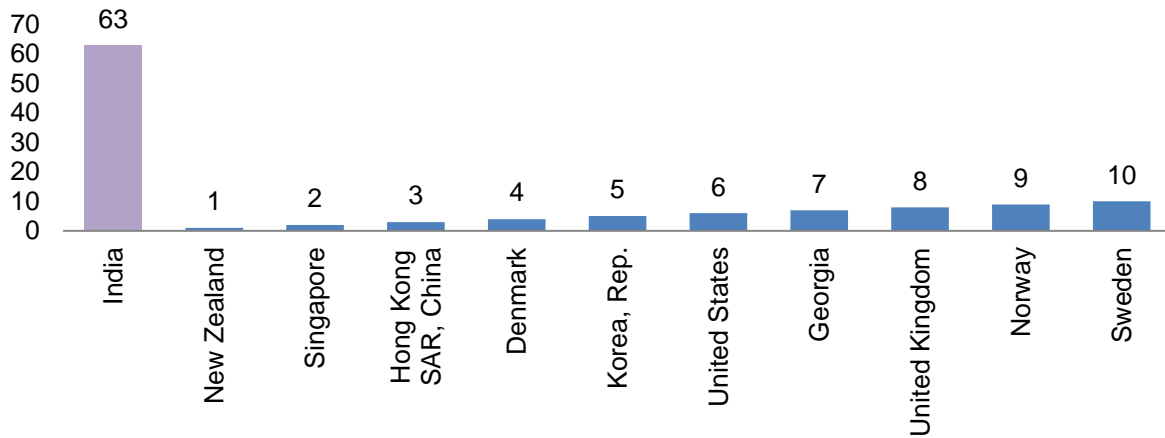
An increase in tourism is expected to propel the passenger traffic for both, domestic and international aviation sector. The propensity to travel for each passenger is also anticipated to increase owing to this initiative.

⁵³ <https://indianrailways.gov.in/NRP-%20Draft%20Final%20Report%20with%20annexures.pdf>, <https://airwaysmag.com/airlines/indian-domestic-traffic-growth-dipped-in-2019/>
<https://indianrailways.gov.in/NRP-%20Draft%20Final%20Report%20with%20annexures.pdf>
https://www.business-standard.com/article/economy-policy/2-years-on-railways-passenger-bookings-still-far-from-pre-covid-levels-122041400972_1.html

⁵⁴ <https://www.hindustantimes.com/india-news/domestic-air-traffic-grew-by-nearly-40-in-june-report-101625584275757.html>

2) Jump in Ease of Doing Business in India

Figure 32: Ease of Doing Business, Business Index CY 2019⁵⁵



Source: World Bank Business Index

The Ease of doing Business Index released by World Bank suggests the competitiveness and penetration of a market based on various strategic parameters. Countries enlisted with the lowest business index have the friendliest business regulations.

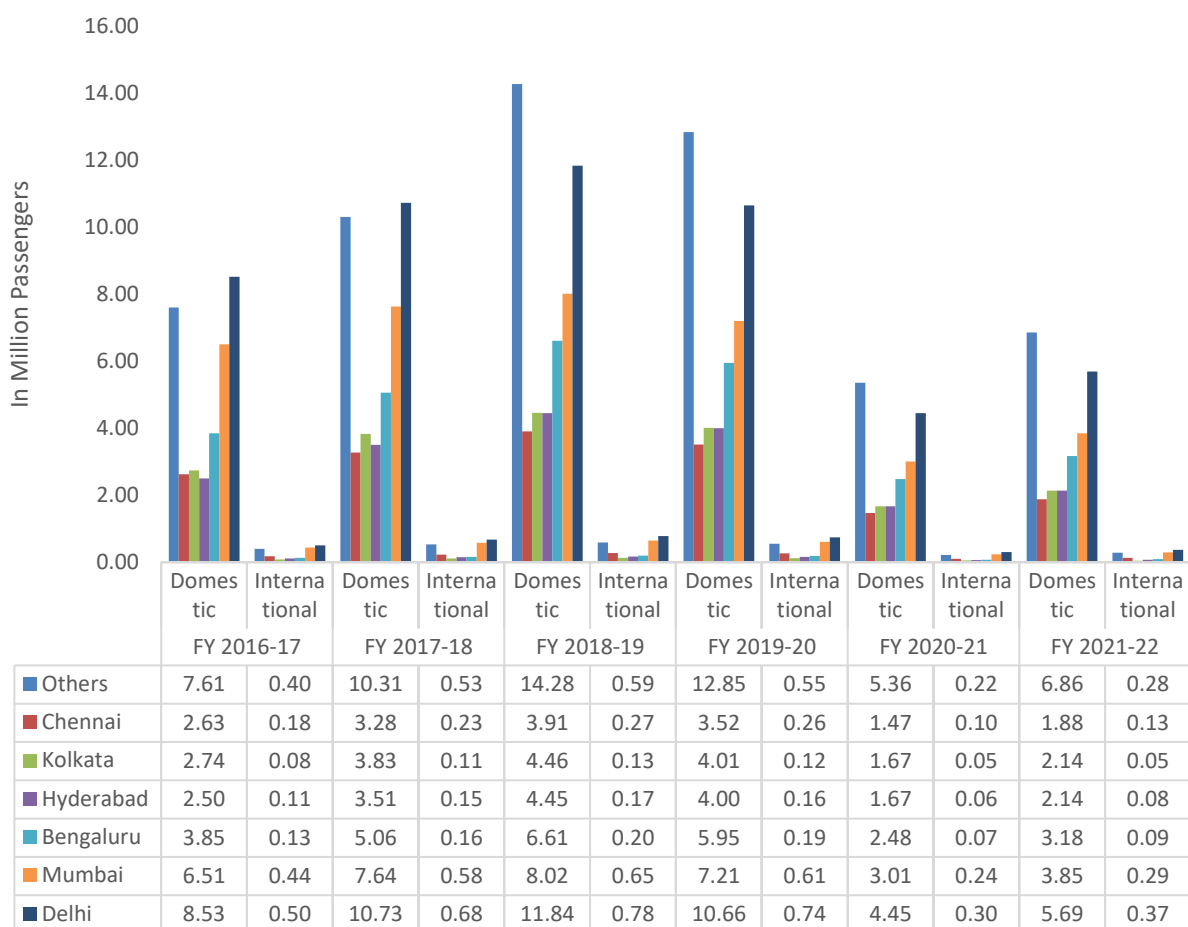
The ease of doing business in India score has been increasing, and India moved from a rank of 142 in 2014 to 63 in 2019. Such improvement has been linked historically with increased foreign investments and enhanced economic activity, which in turn would have its impacts on the Indian air business r travel business sector.

Though India is presently ranked at 63, the Indian government has launched several initiatives in order to promote local businesses which will translate into higher growth of air travel supported by the government initiatives on expanding and modernizing the airport infrastructure

⁵⁵ <https://data.worldbank.org/indicator/IC.BUS.EASE.XQ>

3) Business Travel Market Size and Growth

Figure 33: Business Travel Market Size and Growth, Domestic and International⁵⁶



Source : Base percentage from Indian Railways document

As of 2019, India ranked as the second largest country in terms of Bleisure travel (Bleisure is defined as an extended business trip for leisure purposes). Around 72% of the Indian travelers extend their business trip. Indians travelled at least once in 12 months for business trips. Between FY 2016- FY 2022, Chennai, Delhi and Mumbai are seen to account for the largest share in terms of domestic and international travel.

⁵⁶ <https://indianrailways.gov.in/NRP-%20Draft%20Final%20Report%20with%20annexures.pdf>

4) Travel Cost Benchmarking

Figure 34: Average Cost per Passenger per Kilometre in Comparison to AC 2 Tier and Air Travel, INR ⁵⁷

Select Destinations	Sep 18 2018		Feb 18 2022		August 18 2022	
	AC 2 Tier	Air Fare	AC 2 Tier	Air Fare	AC 2 Tier	Air Fare
New Delhi to Hyderabad	1.64	1.11	1.90	1.34	1.68	3.88
New Delhi to Bengaluru	1.43	1.21	1.70	1.47	1.51	3.06
Mumbai to Cochin	1.76	1.47	1.71	1.52	0.82	2.63
New Delhi to Chandigarh	4.60	4.40	2.90	6.50	2.95	12.71
New Delhi to Kolkata	2.61	1.45	1.80	1.64	1.62	3.94

Note: Average cost per Passenger per kilometer comparison for Rail and Air Travel. Feb 18th, 2022 rail and air fares were checked on 6th November 2021 and 24th June 2022 on IRCTC and Yatra websites

The key point to be noted is that the air travel rates were checked 4 months in prior to the actual date of travel. There has been a steep increase in airfares over the first half of 2022.

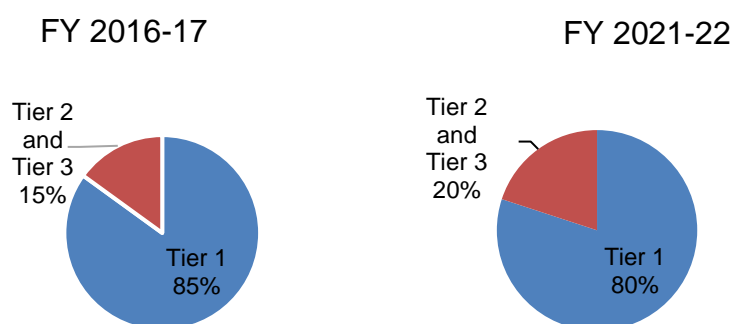
However, the cost of rail travel is lower for General class and 3 tier AC within India due to which the number of passengers travelling via rail is high. However, the government of India has been taking initiatives like UDAN in order to increase the propensity of air travel and to decrease the travel cost. These have had its impacts as seen in the figure above. One of the key factors contributing to the high cost of air travel is the price of Jet fuel within India. Increased use of alternative fuels and rationalization of tax structure could lead to significant reduction in cost of travel by air and increase the air travel propensity.

A CAG (Comptroller and Auditor General) report in 2018, highlighted the lesser cost of air travel compared to rail ticket if booked in advance, however this is no longer accurate in June 2022 due to the steep increase in air fares. The above example has been derived from the report and the 2022 figures have been collated from other travel websites.

⁵⁷ [https://www.gqindia.com/content/cheaper-flight-booking-than-train-ticket-booking,yatra,irctc website](https://www.gqindia.com/content/cheaper-flight-booking-than-train-ticket-booking,yatra,irctc%20website)

5) Air Travel Growth in Indian Cities - Tier 1, Tier 2 and Tier 3

Figure 35: Travel Growth comparison Tier 1 VS Rest of the tier, India



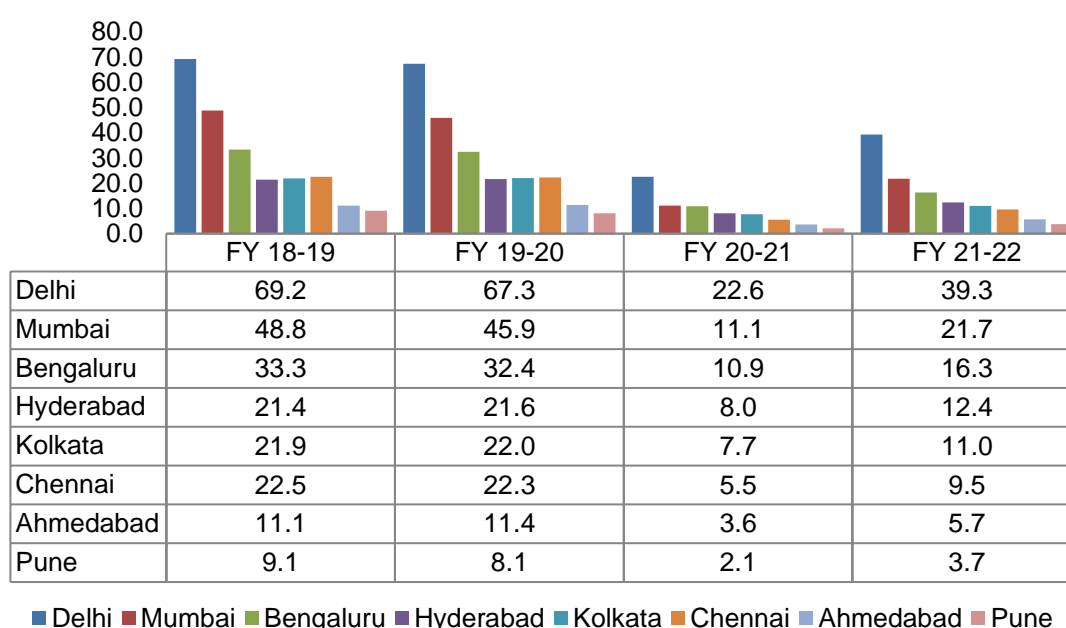
Source: AAI and Frost & Sullivan Analysis

The Tier 1 cities contributed to around 85% of the total air traffic in FY 2016-17, however in FY 2021-22 it reduced to 80%. The Government initiatives like UDAN combined with airport infrastructure development in Tier 2 and Tier 3 cities are expected to increase the percentage of air traffic from such smaller airports. The airports specified for Tier 1, Tier 2 and Tier 3 airports are explained in the section below.

Travel Growth in Tier 1 Cities

The Figure below provides a comparative study between Tier 1 cities in terms of passenger traffic growth at 06 main cities within India. Delhi accounts for the largest market share followed by Mumbai. An average drop in 10% passenger demand is witnessed on comparing the business travel for Tier 1 cities between FY 2019- FY 2020. Consecutively, on making a comparison between FY 2021 and pre-pandemic levels, a 56% drop in business travel is witnessed within Tier 1 cities.

Figure 36: Air Travel Growth in Tier 1 cities, millions

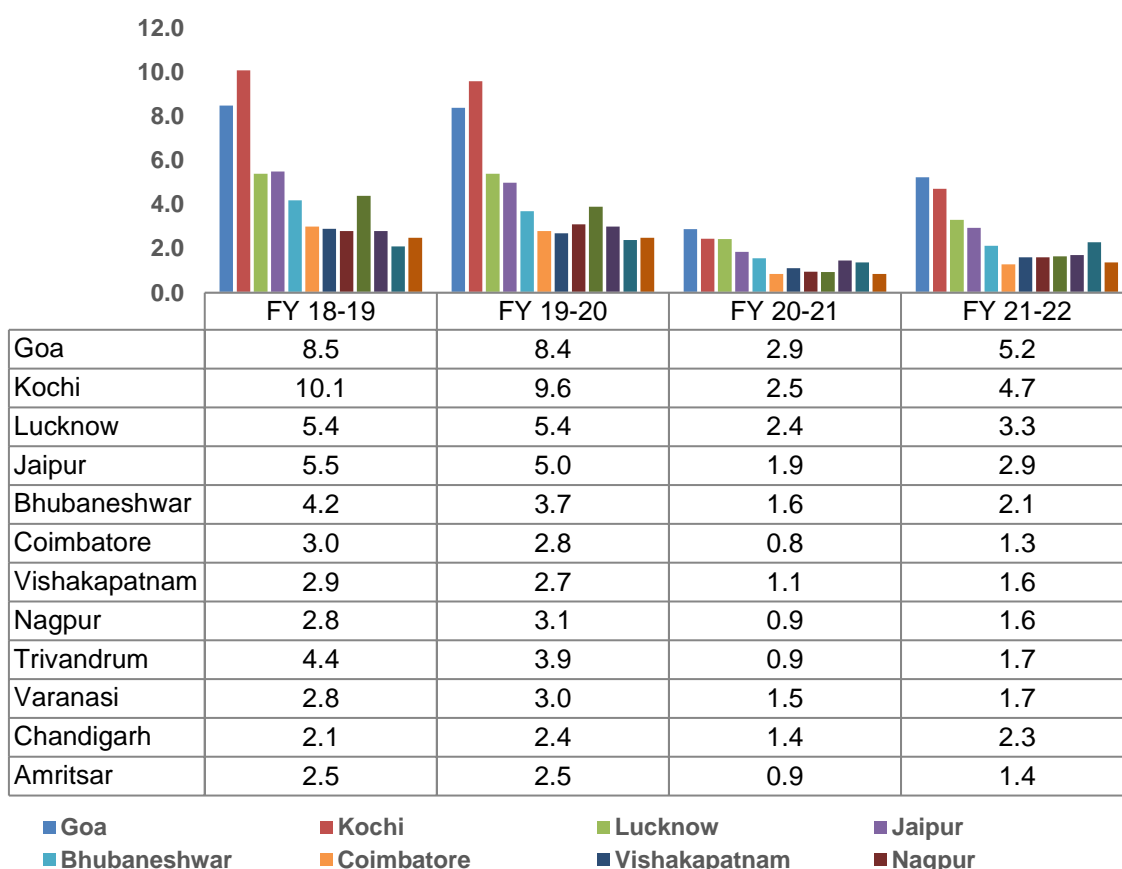


Source:AAI

Tier 2 and Tier 3 Cities

IATA stated that the passenger traffic in some Tier 2 and Tier 3 cities is higher than pre-COVID levels in some cities. Within the domestic market, the aviation sector is presently exploring untapped markets thus driving the growth of this vertical. Deployment of new flights have also increased within Tier 2 and Tier cities within India. Additionally, under-utilized airports have also witnessed a growth in passenger density as of 2021. On making a comparison between the provided figures it is noted that Tier 2 and Tier 3 cities endured a lesser drop in passenger traffic due to the pandemic unlike Tier 1 cities. India resumed its domestic flight services in May 2020 after keeping them suspended for 2 months due to the onset of the pandemic.⁵⁸ The Indian government has also been taking initiatives in order boost connectivity. UDAN is one of the key examples of the same. The UDAN scheme plans to build 100 airports under this scheme with an investment of USD 1.86 billion by the year 2026.⁵⁹

Figure 37: Air Travel Growth in Tier 2 and Tier 3 cities, millions



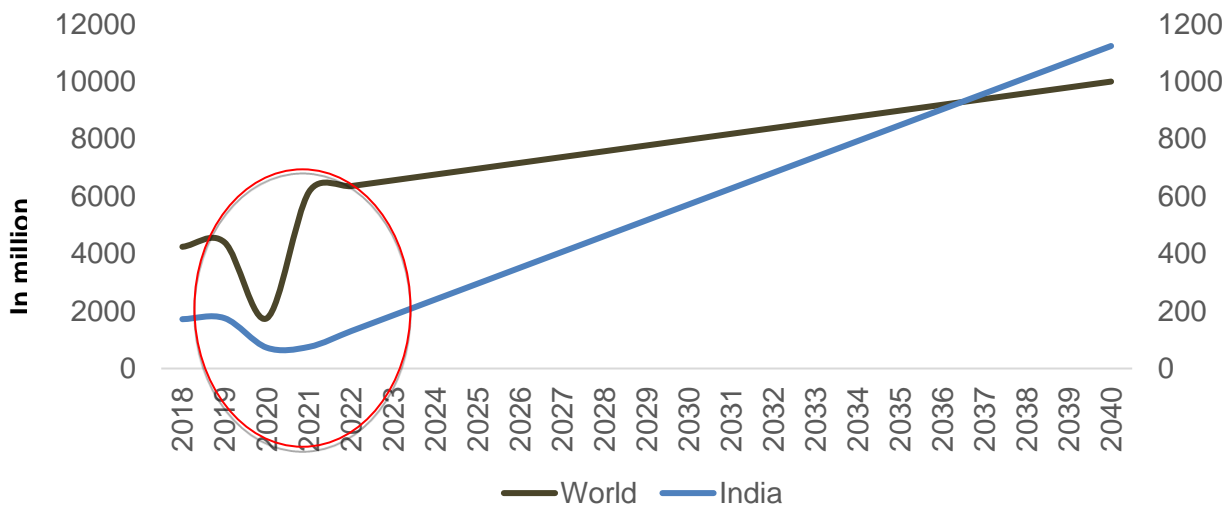
Source: AAI

⁵⁸ <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/passenger-traffic-at-airports-in-tier-2-3-cities-higher-than-pre-covid-levels-iata/articleshow/80673898.cms?from=mdr>

⁵⁹ <https://www.investindia.gov.in/sector/aviation>

India Air Travel Market Outlook 2021- 2040

Figure 38: Indian Air Travel VS World Air Travel, millions, CY 2021-2040



Note: CY 2018-2020 are actuals, while CY 2021 to CY 2040 are estimates

Source: Frost & Sullivan Estimates

Indian Air Travel Outlook- 2040

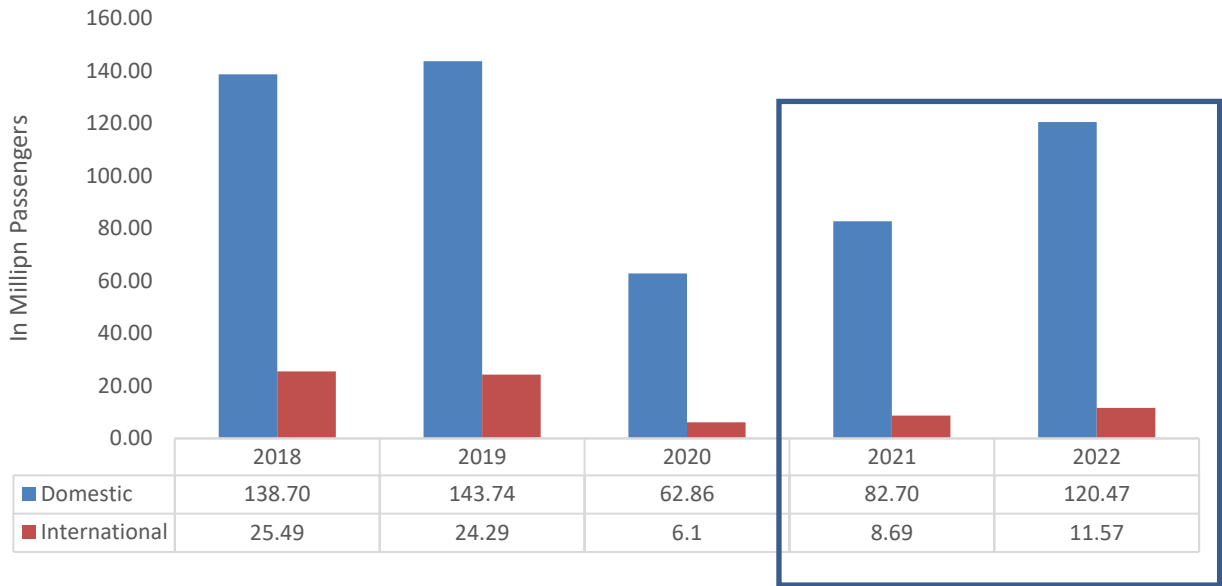
The Indian market is expected to grow at almost 6X from around 175 million air travelers in 2019 to around 1 billion travelers in 2040 as compared to the expected global growth of 2X to a total of 10 billion passengers in 2040. The Indian aircraft fleet is also expected to grow 3X and reach around 2200 aircraft by 2040.

The Indian growth scenario is supported by various factors such as government initiatives, infrastructure improvement, increase in demographic dividend, increase in per capita income and the GDP growth as discussed in earlier sections of the report.

Split by International and Domestic

The average split across the Domestic and International Air Travel Industry for India was recorded to be between 84%-85% and 16%-15% in CY 2018 and CY 2019. This proportion changed to >90% in CY 2020, in favor of Domestic traffic due to international travel regulations due to COVID-19.

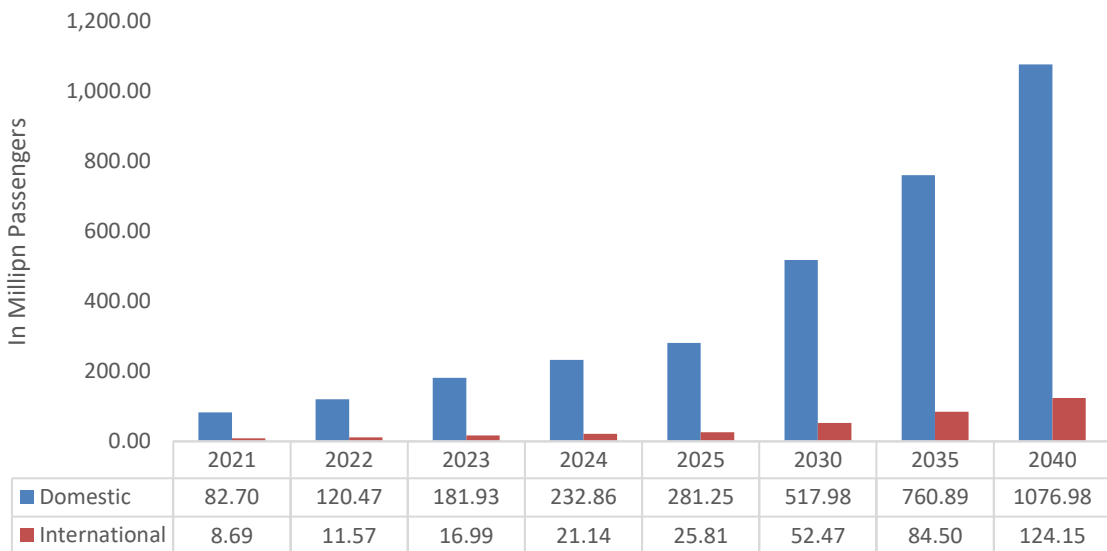
Figure 39: Growth of the Domestic and International Air Travel Industry between CY 2018-2022



Note: Change in passenger traffic for domestic and international air travel industry within India. CY 2022 is estimated (Jan-May is available for Domestic and March and April are available for International for the year 2022). Source: DGCA & Frost & Sullivan Estimates

The figure below shows the graphical representation for increase in International and Domestic Air Travel within India between the years 2018-2040. The Indian aviation sector is expected to make a recovery to pre-pandemic values by the end of calendar year 2022.

Figure 40: Forecasted Growth of the Domestic and International Air Travel Industry between CY 2022-2040



Note: All data are CY Jan-Dec | CY 2022 is estimated (Jan-May is available for Domestic and March and April are available for International for the year 2022). Source: DGCA & Frost & Sullivan Estimates

The Indian domestic air travel passenger is expected to grow at a CAGR of around 36% and surpass 280 million between 2021-2025. The international Indian air travel market is expected to almost grow at 31% CAGR between 2021-2025.

Table 6: Indian Aviation Comparative Growth, 2021 to 2040

Growth of Air Travel Passengers (CAGR)	2021-2022	2021-2023	2021-2024	2021-2025	2021-2030	2021-2035	2021-2040
India (Domestic CAGR)	46%	48%	41%	36%	23%	17%	14%
India (International CAGR)	33%	40%	34%	31%	22%	18%	15%

Note: All data are CY Jan-Dec. Source: Frost & Sullivan Estimates

In the long term the domestic market is expected to grow at a CAGR of around 14% and the international market is expected to grow at around 15%. The total Indian travel market is expected to surpass 1 billion by 2040.

Table 7: Indian Aviation Comparative Growth, CY 2018 to 2040

Growth of Indian Aviation Sector	2018	2022	2025	2030	2040
Total Passengers (In millions)	165	120.8	293.0	567.6	1114
Airline Fleet	622	706 ⁶⁰	1175.0	1570.0	2360
General Aviation Fleet	750	1100	2452	3668	6100
Industry Revenue (In USD billions)	11.4	10	16.9	20.8	28.6
Operational Airports	99	126	220 ⁶¹	235	295
No. of cities with more than 2 airports	0	0	8	16	31
No. of airports with >10 million passengers handled	7	5	20	29	47
No. of Lounges	40-50	54	70-90	150-160	204

Source: Estimates based on FICCI data, ⁶² | Statement by MoCA and Frost Modelling | 2022 Industry revenue has been estimated

Notes: No of Lounges are expected to grow to 204, these are inclusive of additional lounges in existing airports and new lounges in upcoming airports. Around 10 airports to be operational every year.

⁶⁰ <https://www.statista.com/statistics/643984/number-of-aircraft-by-airlines-india/>

⁶¹ <https://www.news18.com/news/india/india-to-have-220-airports-by-2025-80-new-ones-in-next-3-years-jyotiraditya-scindia-4909292.html>

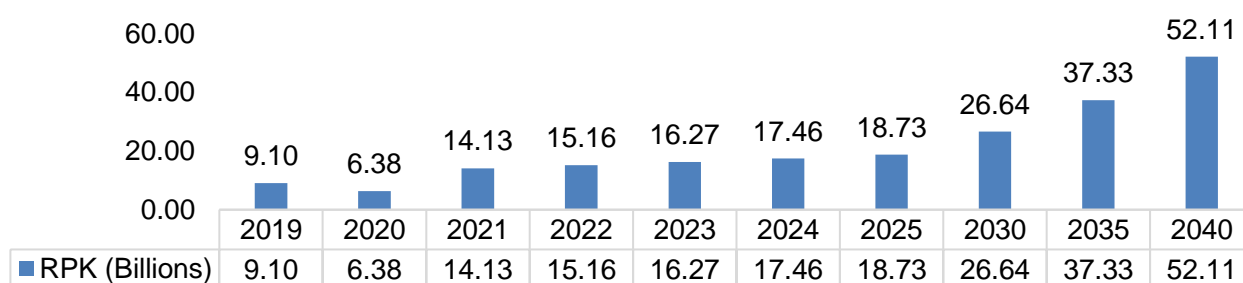
⁶² <https://www.indianeagle.com/travelbeats/new-airports-india-vision-2040/>

The rise in passenger growth will be supported by an increase in the number of airports, fleet and infrastructure as below:

- The total number of operational airports is expected to reach 295 by 2040; these are a combination of second airport within the same city and new Greenfield projects.
- The initial regulations that hindered the development of second airport within the same city has been removed. Navi Mumbai airports and similar projects are key growth drivers for DreamFolks
- As of FY 2022, there were around 5 airports that handled more than 10 million passengers, compared to 3 airports in FY 2021. This is expected to nearly 7X and reach 47 by 2040. This is expected to be a key opportunity with the possibilities of multiple lounge options at these airports.

RPK

Figure 41: Market Forecast for RPK for Domestic and International, CY 2019-CY 2040⁶³

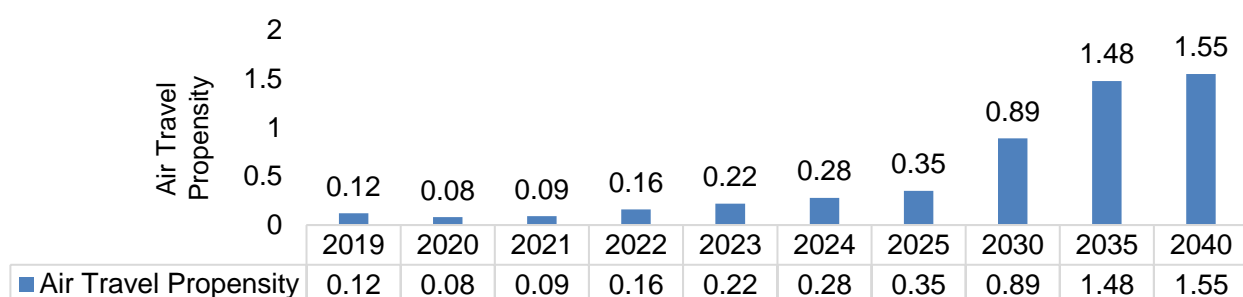


Note: CY 2019,2020 are actual. CY 2021 to CY 2040 are estimates | Source : Frost & Sullivan Estimates

RPK: **Revenue passenger kilometres** (RPK) – also called Passenger kilometres performed (PKP): one revenue passenger-kilometre means that one passenger is carried on one kilometre. (ICAO)

Propensity to Travel

Figure 42: Market Forecast for Propensity to Travel CY 2019- CY 2040^{64,65}



Note: Market Forecast for Air Travel Propensity between 2021-2040 | Source: World Bank

The RPK and Air Travel Propensity are expected to increase exponentially by `6X and 12 X respectively between 2020 and 2040. These are healthy indicators for DreamFolks.

⁶³ <https://ficc.in/spdocument/23493/civil-aviation-report.pdf>

⁶⁴ <https://data.worldbank.org/indicator/IS.AIR.PSGR>

⁶⁵ <https://data.worldbank.org/indicator/SP.POP.TOTL>

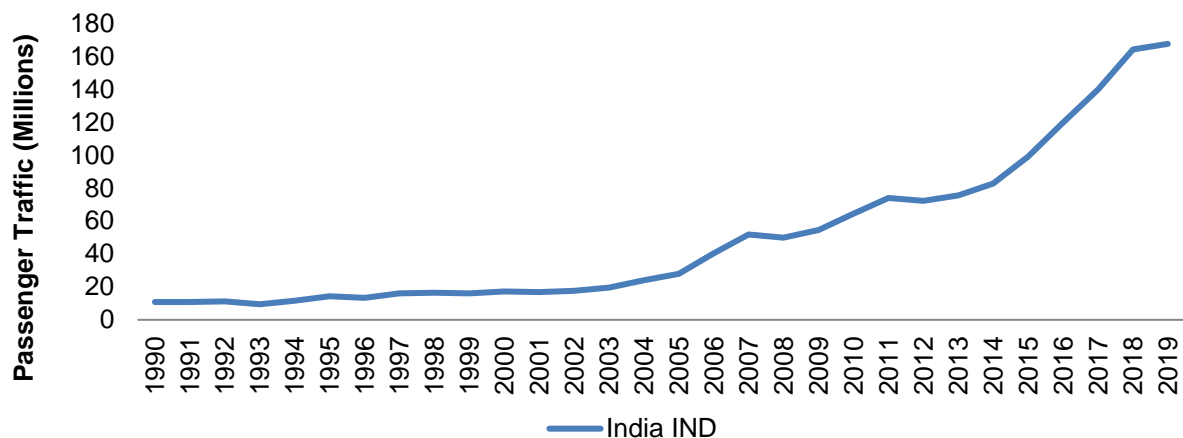
INDIAN AIRLINE MARKET OVERVIEW

Restructuring of the Indian Aviation Industry

India had two airlines before the year 1994, i.e. Air India and Indian Airlines. Both the airlines retained a monopoly within the Indian market till the year 1992. The New Economic policy in the year 1991 led to a change in trends with respect to the Indian aviation sector. Airlines including Damania, East-West, Jet, Sahara, Modi left and NEPC commenced operations during this period. However, factors like high fuel cost and poor infrastructure limited the market growth. Regulations like flying to distant parts of the country and non-trunk routes also curtailed the market growth.

Since the year 2003, there has been a sharp rise in domestic and international traffic within India. The rise in per capita income and GDP contribution led to an increased purchasing power amongst the customers. To create market competitiveness, several new entrants chose low fares to increase their customer base. The growth in air traffic over the years has been shown in the Figure below.

Figure 43: Change in Air Passenger Growth within India⁶⁶



Note: Passenger Traffic in India between 1990-2019 | Source : World Bank

In the year 2003, Captain Gopinathan operated the first low-cost aircraft carrier to be flown within India, i.e. Air Deccan. The company revolutionized air travel by offering airfare as low as INR 1. By the year 2005, airlines like Kingfisher, Paramount, GoAir, SpiceJet, and IndiGo entered service. Both SpiceJet and IndiGo followed the low-cost airline business model.

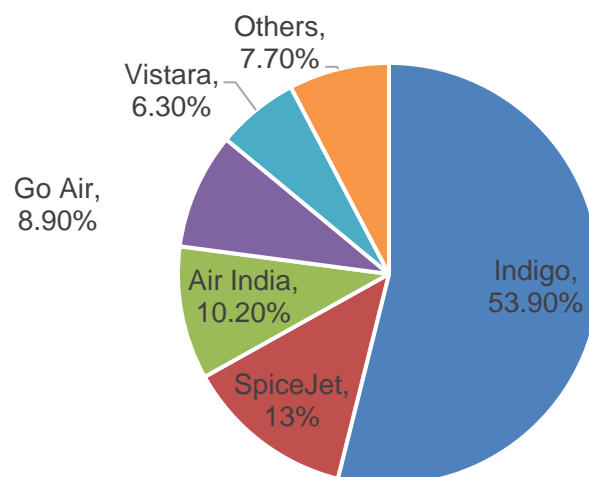
⁶⁶ <https://data.worldbank.org/indicator/IS.AIR.PSGR>

Current Market Share of Indian Airlines

India is a high-growth market in terms of per capita income. Moreover, the number of new domestic passengers increases by a value of roughly 15-16% on a year-on-year basis. The inclusion of low-cost carriers increases the competitiveness of the Indian Aviation sector.

Indigo is the undisputed leader within the low-cost carrier segment. The airline accounts for 54% of the market share with a fleet of roughly 250 aircraft. Indigo resumed the majority of flights by May 2020. Indigo is roughly 40% ahead of Spice Jet in terms of revenue generated. Unlike other players within this sector, the market share for Indigo expanded by a value of 40-45% to 50-55% between 2020 and 2021. As of 2021, Indigo was registered as Airbus's largest customer.

Figure 44: Market Share of Airlines in India ⁶⁷



Source: Times of India

SpiceJet was recorded as the second-largest airline with a market share of 12.8% in the year 2021. The airline carriers operate a fleet of Bombardier and Boeing. The diverse network for SpiceJet has allowed the airline to maintain its high load factor. Towards the start of 2021, SpiceJet had the highest load factor with a value of 80%. The company is focused on expanding its cargo business, SpiceXpress from 5% to 10% market share.

Air India has the third-largest market share within the Indian aviation sector. The airline operator accounts for roughly 12% of the market share for the Indian aviation market. Air India had a thin margin of customers in 2021 with a value of roughly 20,000 customers. The airline operates a total of 77 aircraft. On combining the same with the subsidiary Alliance Air, the carrier serves roughly 100 domestic destinations. Air India has now been acquired by TATA group, and this is likely to boost both the airline market share as well as boost the overall India aviation market.

⁶⁷ <https://timesofindia.indiatimes.com/blogs/voices/india-flying-high/?source=app&frmapp=yes>

Go First is the fourth largest carrier within the Indian aviation sector. As a part of the ultra-low-cost transformation, Go Air renamed itself Go First. The airline is presently backed by Wadia Group and the company registered a market share of 9.6%. Similar to Indigo, all the aircraft within the Go First fleet are from Airbus. GoFirst registered its first IPO with a value of USD 287 million in August 2021. ⁶⁸

The growth of airliners within India is expected to account for increased direct spending within the aviation sector. The spending is anticipated to reflect directly onto airport services as well. Thus lounge operators could benefit from this opportunity.

Growth in privatization within the aviation sector is one of the key trends within this market. Companies like Tata have been entering the aviation sector to help expand the opportunities offered by the Indian aviation sector. On making a comparison to the global market, the losses encountered by the Indian aviation sector are anticipated to be lesser as opposed to other verticals. As of 2020, international airlines like Virgin Atlantic (US Based airline) ⁶⁹ and Flybe (UK-based airline) ⁷⁰ filed for bankruptcy. While other airlines like Aeromexico are presently shrinking through bankruptcy. The Mexican carrier has renegotiated labor agreements. Aeromexico secured up to USD 1 billion in new debtor-in-possession funding and pruned its fleet to 106 aircraft in 2021. ⁷¹

Observations

- Privatization has been increasing in the Indian air travel industry.
- IndiGo accounts for 54% of the market share within the aviation sector with a fleet of 250 low-cost carriers.
- SpiceJet has the highest load factor with a value of 80%. It is the second largest low-cost carrier within India.
- SpiceJet is focused on increasing the market share for SpiceXpress (it's cargo segment) from 5% to 10%.
- Air India accounts for 12% of the Indian aviation market. The company is being taken over by TATA.
- The losses encountered by the Indian aviation sector are lesser compared to other key economies. For instance, key airlines like Virgin Atlantic, Flybe and Aeromexico filed for bankruptcy due to the effects of the pandemic. However, the effects of the pandemic are lesser within the Indian aviation sector on a comparative scale.

⁶⁸ <https://simpleflying.com/indian-airlines-market-share> [Please delete magazine sources of info – as we need to showcase only weightier sources]

⁶⁹ <https://www.theguardian.com/business/2020/aug/04/virgin-atlantic-files-for-bankruptcy-as-covid-continues-to-hurt-airlines>

⁷⁰ <https://www.businessinsider.in/science/news/uk-airline-flybe-declares-bankruptcy-as-coronavirus-dooms-the-already-struggling-carrier/articleshow/74486923.cms>

⁷¹ <https://airlineweekly.com/2021/04/aeromexico-shrinks-through-bankruptcy-with-deal-to-slash-boeing-orderbook>

- It is also important to note that around 80% of the Domestic Airline market share is held by Low Cost Carriers. These carriers do not offer on-board food services, unlike the FSC. This could be an important driver for the lounge market.

Case Study: Air India

In 2007, Air India and Indian Airlines merged to form Air India Limited. The airline received its first Boeing 777 and was invited to join the Star Alliance. In 2006-07, Air India and Indian Airlines had a combined loss of USD110 million, but after the merger, the loss rose to USD1.0 billion by March 2009. The State Bank of India developed a plan for the airline's recovery that same year. The carrier sold three Airbus A300s and one Boeing 747-300M for USD 18.75 million to finance the debt.

Several factors contributed to the airline's poor financial performance. An ill-timed merger with Indian Airlines and the purchase of 111 new aircraft were two of them.⁷² The airline began serving Frankfurt Airport as an international hub for flight connections from India to the United States. As a result of high operating costs, the airline closed its Frankfurt hub on 30 October 2010.

Table 8: Top Mergers in Civil Aviation Sector, India.

Parties involved	Date	Type of deal	Merged entity	Deal value
Jet Airways and Air Sahara	12th April, 2007	Acquisition	JetLite	Rs. 2050 Cr
Air India Limited and Indian Airlines	15th July, 2007	Merger	Air India brand name was retained	
Etihaad Airways (Investor)- Jet Airways	April 25, 2013	Acquisition	24% stake acquired in Jet Airways	Rs. 2060 Cr.

Air India decided to end routes with low profitability in 2010, and the airline established its new international hub in Dubai. In 2011, Star Alliance suspended its invitation to join because it failed to meet the membership standards. The government demanded that the incumbent air carrier pay USD 6.0 billion in debt and USD 3.1 billion in operating losses. In 2012, the Ministry of Corporate Affairs recommended part-privatization of Air India. As part of its external commercial borrowing and bridge financing program, the carrier invited banks with sales to rise to USD800 million. A fine of USD 80,000 was levied on Air India for failing to inform passengers of its optional fees.

⁷² <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/what-sent-air-india-crashing/articleshow/4782707.cms>

In 2013, the then-Civil Aviation Minister stated that privatization was vital to maintaining the airline's operation. As a debt relief plan, Air India leased and sold Boeing 787 Dreamliner to raise capital. The airline split engineering and cargo into Air India Engineering Services Limited (AIESL) and Air India Transport Services Limited (AITSL).

In 2017, Indian authorities agreed to privatize Air India. A government expression of interest (EOI) was issued to sell a 76% stake in Air India and a 50% stake in AISATS, which is a joint venture with Singapore Airport Terminal Services (SATS).⁷³ In late 2019, after failing to sell the airline on two previous occasions, the government decided to sell a 100% stake in it. In January 2020, it issued an Expression of Interest (EOI) to invite bidders. However, in October 2021 TATA was announced as the bid winner for Air India at INR 18,000 Crores. The Air India- TATA The regional arm of Air India, Alliance Air and other businesses are not a part of this deal.

Tata: Future Key Player

The Tata Group operates two airlines; a full-service carrier Vistara in partnership with Singapore Airlines, and a budget airline, AirAsia India, with Malaysia's Air Asia Group. Recently, the company has also won the bid for acquiring Air India. According to the plan, Tata Group will become the second-largest airline in the Indian domestic market with a 26.7% market share, behind IndiGo. There are many upsides to the deal for both Air India and the Tata Group. Once the legacy issues are resolved, Air India will finally be in the hands of a large conglomerate that can manage the airline efficiently.

For several years, Air India has had issues with the quality of service. Tatas need to change the perception of Air India among passengers, among other things. In the last few decades, service standards have deteriorated. Many loyalists have been disappointed too. The existing airlines are unlikely to compete with Air India or Air India Express.. In Tata's view, domestic aviation is heavily skewed towards low-cost carriers (LCCs).⁷⁵ Despite being a full-service carrier (FSC), Vistara's back-end is run like an LCC. As a result of acquiring Air India, Tata's future will likely lie between LCCs and FSCs.

Affordability and Growth in the Middle-Class Segment

Several factors indicate the civil aviation sector will experience growth, including strong economic growth, rising middle-class demand, and increased tourism. In terms of creating opportunities for investments and employment, the growth of the aviation sector creates a large multiplier effect on the economy.

India's Ministry of Civil Aviation (MoCA) aims to make flying affordable and convenient for everyone. It envisions safe, secure, and sustainable air travel for passengers and cargo throughout India and globally. Furthermore, MoCA aims to create an ecosystem to support the harmonized growth of various aviation subsectors, namely airlines, airports,

⁷³ <https://indianexpress.com/article/business/with-no-buyers-for-air-india-modi-government-considers-listing-it-on-stock-market-5216046/> {delete these kind of data sources throughout the doc}

⁷⁴ <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/government-calls-out-bids-to-sale-76-per-cent-stake-in-air-india/articleshow/63517638.cms?from=mdr>

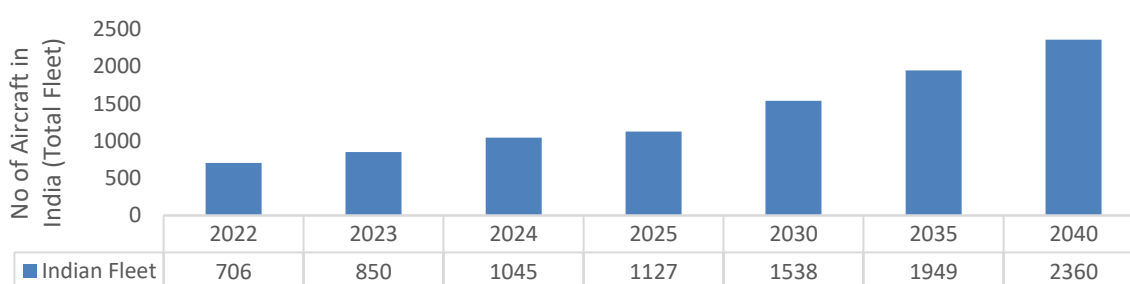
⁷⁵ <https://www.businesstoday.in/industry/aviation/story/tata-air-india-deal-how-will-airasia-india-vistara-co-exist-with-air-india-308249-2021-10-01>

maintenance, repair, and overhaul (MRO), general aviation, and skill development. As a result, the National Civil Aviation Policy 2016 (NCAP) was formulated.

In addition to enhancing regional connectivity, NCAP aims to develop infrastructure and provide fiscal support. Consequently, the Government of India released the Regional Connectivity Scheme (RCS) to facilitate and stimulate regional air connectivity. The civil aviation sector has been developing new airports and modernizing existing ones under initiatives such as NabhNirman. There are now 100 airports in operation in 2018, up from 75 airports in 2014. The launch of several AirSewa App, Passenger Charter, and Digi Yatra has made traveling easier for the middle class⁷⁶.

Indian Commercial Aircraft Fleet

Figure 45: Indian Commercial Aviation Fleet, CY 2020-2040

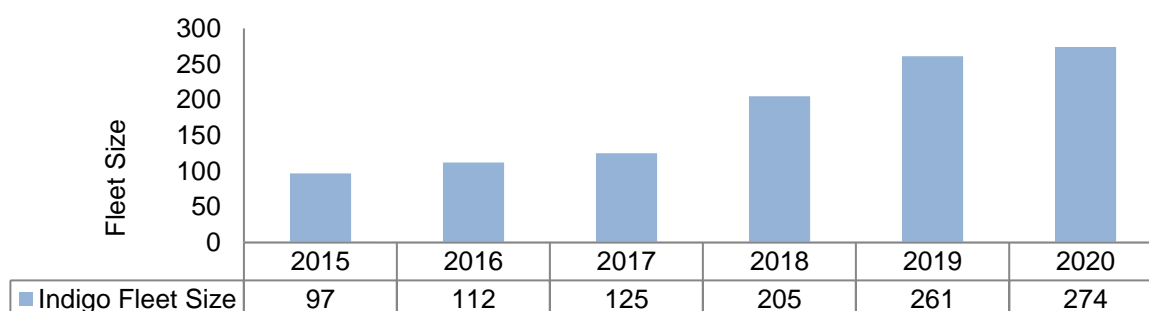


Note: The fleet size in end of June 2022 was 706 aircraft⁷⁷, this is expected to reach 2360 aircraft by 2040. Source: Frost & Sullivan Estimates

Growing Fleet Size: Indigo, Spice, Air India, Tata IndiGo Airline

IndiGo is the largest airline in India having a fleet size of 274 aircraft at the end of 2020. It operates A321 NEO, A320 CEO & NEO, and ATR 72-600 airbuses. The seating capacity on the A321 fleet is 222. The A320 CEO and NEO have a seating capacity of 180/186. The seating capacity in the ATR Fleet is 74. There are 90 destinations served by IndiGo, including 66 domestic destinations and 24 international destinations.

Figure 46: India, Indigo Fleet Size and Year over Year Change from 2015 to 2020.



Note: Year-on-Year change in Fleet size for Indigo and Percentage Change. The current fleet order by the airline is around 585, in which 208 are A320 NEO, 108 are A321 NEO and 21 are ATR.

⁷⁶ https://www.icao.int/Meetings/a40/Documents/WP/wp_380_en.pdf

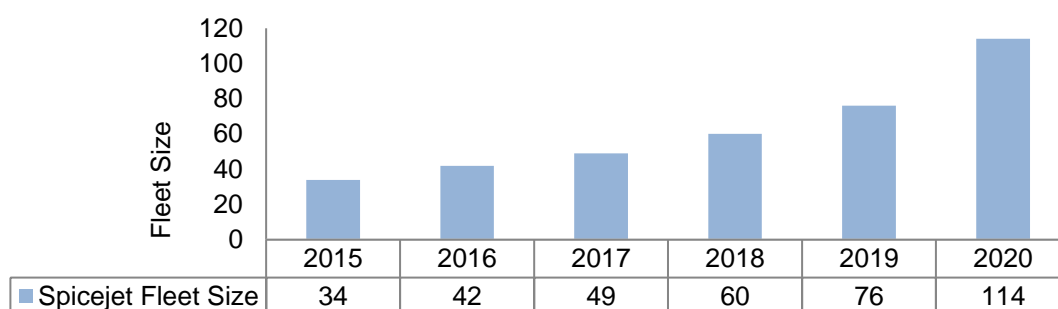
⁷⁷ <https://www.news18.com/news/auto/domestic-airlines-fleet-in-india-cross-700-planes-73-new-aircrafts-added-in-2020-dgca-3504290.html>

SpiceJet Airline

SpiceJet has a fleet size of 114 aircraft making it the second-largest airline in the country. The airline recently added the B737-MAX 8 aircraft to its fleet, which is a newly designed aircraft with new fuel-efficient engines. The airline has placed an order for 192 Boeing 737 MAX 8.

SpiceJet operates Boeing and Q-400s. The new-generation Boeing 737-700s, 737-800s, and 737-900ERs are suited for short to medium-haul flights. Q400s are designed for short-haul courses.

Figure 47: India, SpiceJet Fleet size and Year over year change from 2015 to 2020.



Note: Year-on-Year change in Fleet size for SpiceJet and Percentage Change

Air India Airline

Air India operates in 102 destinations around the world from a fleet of Airbus and Boeing aircraft. It has the third-largest market share in fleet size. As part of its network, the airline serves several cities in India from its hub at Indira Gandhi International Airport, New Delhi. The airline flies to more than 60 destinations on four continents. On 11 July 2014, it became the 27th member of Star Alliance. Tata Group acquired Air India in October 2021. The total fleet size of Air India is around 123 aircraft, with an average fleet age of around 9.8 years.

Tata Airlines: Vistara

Tata SIA Airlines Limited, known as Vistara, is a joint venture between Tata Sons and Singapore Airlines. It began operating on 9 January 2015 with its first flight between Delhi and Mumbai. By June 2016, the airline had carried more than two million passengers. It is the sixth largest airline and serves 34 destinations with a fleet of Airbus A320 and A321neo, Boeing 787-9 and 737-800NG aircrafts. Vistara operates with a fleet of around 47 aircraft, around which 36 are Airbus A320s.

Tata Airlines-Air Asia

Tata Sons owns 83.67% of AirAsia India, while AirAsia Investment Limited (Malaysia) holds 16.33%. In June 2014, AirAsia India began operating with Bengaluru as its primary hub.

It is reported that Tata Sons is considering bringing AirAsia India under the Air India brand. In order to increase its share of the country's airline industry, the company raised its stake in AirAsia India last year. Malaysia's AirAsia Group Bhd has decided to exit India by March 2022 with an 18 million dollar sale of its remaining 16 % stake in AirAsia India. As part of its plan to consolidate and strengthen its foothold in the world's fastest-growing aviation market, the Tata group has spoken to SIA about grouping their joint venture Vistara under a single airline company. Air Asia India operates with a fleet of around 33 aircraft all of which are A320s.

Investments by Aircraft Integrators

In 2024, India is expected to become the third-largest aviation market in the world. The rise of middle-class households, competitive low-cost carriers, and supportive policies are a few prime reasons. India's aviation industry is growing at a fast pace due to the projected increase in air passenger traffic.

Boeing Forecast

Over the next two decades, Boeing anticipates a significant increase in aviation sales to India because of the country's expanding middle class and growing economy. The company forecasts revenue of \$320 billion from more than 2,200 new jets. The growth in India's domestic and regional markets will also be supported by single-aisle airplanes like those in the 737 family, which offer short-haul flights from India to the Middle East and Asia-Pacific regions. Over the next 20 years, Indian operators will need 1,960 single-aisle airplanes.

According to Boeing, 260 new wide body airplanes are needed over the next 20 years to meet the long-term demand for long-haul connectivity, especially to North America and Europe. The 787 Dreamliner is becoming increasingly popular in India.

The company envisages creating an aerospace ecosystem in India. It has transformed dozens of Small and Medium Enterprises (SMEs) from different businesses into aerospace manufacturers. Since 2015, the company sourcing from India has grown four times under Make in India. In 2012, it was \$100 million, it rose to \$250 million in 2015 and in 2020, it was \$1 billion⁷⁸.

The company has postponed the launch of its manufacturing facility, converting its Bengaluru facility into a research and development centre. The Bengaluru facility was approved in 2018 by the Karnataka state government. It was set as an engineering and product development facility worth 1,150 crores and located in the aerospace park near the Bengaluru international airport. After its United States facility, Bengaluru is set to be the company's second-largest expansion project. According to the company, 13341 job opportunities can be created through five projects worth approximately 26,659 crores in investment. ⁷⁹

⁷⁸<https://www.boeing.com/>

⁷⁹<https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/boeing-drops-manufacturing-plans-in-bengaluru/articleshow/79851789.cms?from=mdr>

Airbus Forecast

In India, two of the biggest carriers, IndiGo and GoAir, have ordered nearly 900 A320 NEO aircraft. India's carriers capture just 36% of revenue from international air travel. The majority of widebody aircraft serving the Indian market are Airbus aircraft, but a small number of these aircraft are on Indian carriers. The low number of international traffic carried by Indian carriers is due to the absence of a home-grown carrier to support the hub traffic. The home-grown carriers would help the airports increase the overall revenues. These would also have a positive impact on the duty free and lounge usage.

The company predicts an annual traffic growth of 7.7% in India's civil aviation sector⁸⁰ over the next 20 years. The domestic traffic growth alone will be 8.2%, which is among the highest in the world. There are 1,440 aircraft needed for expansion and 440 replacements of retiring aircraft. Airbus reports that India's existing fleet of 510 aircraft will grow to 1,950 by 2038. There are parts of the company's commercial aircraft that are made in India. Airbus India has reported export revenues of \$650 million and is also looking to increase its Indian sourcing volumes to \$1 billion by 2025.

New Airlines

FlyBig is the newest airline to join the Indian aviation industry in January 2021. Initially, the airline founded by pilot-turned-aviation entrepreneur Sanjay Mandavia would fly thrice a week. The airline launched a route from Indore to Raipur on January 13, 2021. As of February 1, the airline flew to Bhopal from Ahmedabad. Soon, there will be daily flights connecting all three tier-2 cities.⁸¹

The airline operates an ATR aircraft, and it is planning on obtaining a second one. Over 15,000 agents work with the airline, many of whom are located in tier-2 cities. There are also discussions about working with online travel agencies. The airline plans to include the Jabalpur city in its network after organizing a 'special flight' for a differently abled passenger.

The Indian airline industry is also gearing up for the entry of Jet Airways 2.0 and Akasa, backed by Rakesh Jhunjhunwala.⁸² Despite the fact that both airlines are still finalizing their detailed plans, the airline industry has demonstrated investor interest at a time when carriers in other countries are struggling to boost their revenue due to muted travel demand.

⁸⁰<https://www.airbus.com/>

⁸¹ <https://www.moneycontrol.com/news/business/flybig-indias-newest-airline-to-begin-operations-from-january-3-all-you-need-to-know-6292121.html>

⁸² <https://indianexpress.com/article/explained/how-indias-aviation-market-is-changing-with-new-players-rakesh-jhunjhunwala-akasa-7433697/#:~:text=Akasa%20is%20an%20upcoming%20%E2%80%9Cultra,stroke%20in%20the%20airline%20company.>

Rakesh Jhunjhunwala, a stock market investor, will hold a 40% stake in Akasa, an upcoming ultra-low-cost carrier (ULCC)⁸³. In addition to appointing aviation industry veterans such as ex-Jet Airways CEO Vinay Dube and ex-IndiGo President Aditya Ghosh to run the airline, Jhunjhunwala plans to launch the airline in 2022. The airline received their first aircraft in June 2022 and is expected to operate a fleet of 70 aircraft in the next four years. Akasa Airlines received the nod from the civil aviation ministry on 11th October 2021 to launch the airline.

There is also expectations of revival of Jet Airways, it is usually referred to as Jet Airways 2.0⁸⁴. Jet Airways had suspended its operations in April 2019 due to its internal financial crisis. In 2021, Jalan Kalrock Consortium, consisting of Dubai-based Jalan and London-based Kalrock Capital is trying to revive Jet Airways by pulling it out of insolvency. The airline has started recruiting its crew, with preference for ex- Jet Airways employees. This would also add additional capacity to the Indian ASK.

⁸³ A ULCC airline's business strategy is to reduce operating costs even further than a typical budget airline such as SpiceJet or IndiGo. In the low-cost airline model, certain amenities that are normally associated with full-service airlines are separated - such as seat selection, food, and beverages. The ULCC model further separates services like checked-in baggage, cabin baggage, etc. Since LCCs traditionally offer significantly lower fares and only slightly lower costs than FSCs, ULCCs typically have minimal overhead expenses.

⁸⁴ .

AIRPORT INFRA, AIR TRAVEL INFRASTRUCTURE AND AIRPORT SERVICES

Airports are economic engines, every INR 100/- invested in aviation is expected to generate an economic output of INR 325/-. Similarly, every 100 jobs created in aviation is expected to create 610 indirect job opportunities.⁸⁵ The aviation sector has been contributing roughly 3.5% to the Indian GDP, with only around 10% of the population opting for air travel, revealing a huge headroom for further growth.

Airport Infrastructure Improvements in India

Greenfield airports contribute significantly to economic growth. The government of India has agreed in principle for the development of 21 greenfield airports in the coming 4-5 years. The growth in passenger demand and air traffic is one of the key drivers for the same. The overall program cost is estimated to be INR25,000 crores. As of 2022, there were roughly 126 operational airports in India, and it is expected to increase to 295 operational airports by 2040. The Indian Government plans to spend around INR 1 trillion to set up new airports by 2024⁸⁶.

The Indian government has taken several steps to reform civil aviation by providing high-quality infrastructure and facilities. Indian aviation will see massive development in the coming years with new airports, which have been in-principle approved. Some of these greenfield airports include Navi Mumbai and Sindhudurg (Maharashtra), Mopa (Goa), Bijapur, Shimoga and Hassan (Karnataka), Dabra (Madhya Pradesh), Kushinagar (Uttar Pradesh), Hirasar and Dholera (Gujarat), Dagadathi and Bhogapuram (Andhra Pradesh), and Hollongi (Arunachal Pradesh). Six of the above Greenfield airports which have been operationalized are Pakyong in Sikkim, Shirdi in Maharashtra, Durgapur in West Bengal, Kalaburagi in Karnataka, Orvakal in Andhra Pradesh, and Kannur in Kerala.⁸⁷The Airports Authority of India (AAI) has taken up a development program to build technical blocks, new terminals, aprons, air navigation services (ANS), and control towers in the next 4-5 years. According to the Indian government, public-private partnership (PPP) is an effective way to attract private investment to existing and new airports⁸⁸.

As of 2020, three hundred and sixty-nine routes have been launched under Regional Connectivity Scheme-UDAN, including five heliports and two water bases in India. The government has emphasized the rationalization of Indian airspace routes in coordination with the Indian Air Force for shorter routes, lower fuel consumption, and efficient airspace management.

⁸⁵ <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/every-rs-100-invested-in-civil-aviation-gives-economic-output-of-rs-325-jyotiraditya-scindia/articleshow/86647104.cms?from=mdr>

⁸⁶ https://www.business-standard.com/article/economy-policy/india-to-invest-rs-1-trillion-in-setting-up-100-new-airports-by-2024-119103001442_1.html

⁸⁷ <https://www.livemint.com/news/india/govt-gives-in-principle-approval-for-21-new-airports-11628080793712.html>

⁸⁸ <https://www.ibef.org/industry/indian-airports-analysis-presentation>

As a means of ensuring the treatment of carriers in the international sector, Air Bubble Arrangements have been formed. Several policies have been developed to support airlines in improving their global competitiveness. It includes rationalizing taxes, using bilateral traffic rights effectively, creating a favourable aircraft leasing environment, and upgrading air navigation facilities.

Change in Government Stance on Vicinity of Green Field Airports

Before 2014, Indian cities were to abide by the norm that no Greenfield civilian airports could be within 150 km vicinity. In case a Greenfield airport was proposed, MOCA (Ministry of Civil Aviation) was to consider the construction of the same based on the impact of the upcoming airport on the surroundings. The government was to decide on the same on a case-to-case basis.⁸⁹

By December 2014, MOCA decided against amending the existing regulation. However, in the context of developing greenfield airports, an exception is to be made for airports to be located at Jewar in Greater Noida on Delhi's outskirts. In Principle MOCA agreed to the construction of 15 greenfield airports, i.e. four each in Maharashtra and Karnataka, two in Kerala, and one each in West Bengal, Madhya Pradesh, Sikkim, Puducherry, and Uttar Pradesh.

A case in point is the establishment of the Navi Mumbai airport within 150 km from the Mumbai (BOM) International Airport.⁹⁰ The Navi Mumbai Airport is roughly 35 kms from the existing Mumbai International Airport. The airport is planned to be built in two phases by the year 2032. The project commenced in the year 2018.

This initiative of building additional airports would lead to an increased GDP contribution in terms of the aviation sector via the generation of direct and indirect employment. Lounge Operators could benefit through this initiative since they could expand into untapped markets.

Air Navigation Services

Air Navigation Services includes business and air traffic management, air traffic control, ensuring safe aviation, and information distribution. The air navigation services providers (ANSPs) ensure that airspace users are moving safely and efficiently. The Airport Authority of India (AAI) is currently the sole ANSP in India. It is likely that AAI will privatize Air Navigation Services (ANS) in the coming years, improving efficiency in terms of optimization. The United Kingdom, Germany, Italy, and Canada, for instance, privatize or use the PPP (public-private partnership) model for ANS which has led to reduction in costs to the airlines.

⁸⁹ https://www.civilaviation.gov.in/sites/default/files/moca_001421.pdf

⁹⁰ <https://timesofindia.indiatimes.com/india/review-of-150km-radius-limit-for-second-airport/articleshow/42582728.cms>

India, like advanced economies is moving towards Satellite based navigation services. As a part of meeting the needs of the civil aviation sector requirements of positioning, navigation, and timing, ISRO offers satellite-based navigation services. ISRO is establishing the GPS Aided Geo Augmented Navigation (GAGAN) system jointly with the AAI. IRNSS (Indian Regional Navigation Satellite System) will serve as a regional satellite navigation system based on the indigenous system to meet the requirements of positioning, navigation, and timing services.

The GAGAAN Stability tests were completed in June 2013. In addition to reducing fuel costs, GAGAN will reduce equipment costs and increase air traffic safety, capacity, efficiency, and reliability. It reduces labour costs for operators and provides airplanes with oceanic coverage for advanced air traffic control. The level of utilization of such benefits will determine the quantum of advantages in the aviation sector⁹¹.

In adverse weather conditions, the vertical guidance of GAGAAN can enhance safety benefits. The procedures will facilitate better management of energy and will have environmental benefits. It can lead to a seamless global navigation system for arrivals, departures, oceanic routes, and en-route phases of flights. In conclusion, it will increase airspace capacity through direct flights and multiple approaches resulting in considerable fuel savings for airlines. This development will increase air traffic which would directly impact the lounge market positively.

Modernization of Existing Airports

There were six international airport tenders in India in 2015 for which international airport operators and investors prepared bids. Several airport investment opportunities were offered, including two greenfield airports in Navi Mumbai and Goa, Mopa. There were four Public-Private Partnership (PPP) concessions awarded for existing airports in Chennai, Kolkata, Ahmedabad, and Jaipur, owned by the Airports Authority of India in 2014-2015.

The Airports Authority of India maintains a 26% share at Delhi, Mumbai, Bangalore, and Hyderabad, of the four metro PPP airports. Each airport also has at least one foreign investor. In India, the fifth PPP airport in Cochin was the first private airport. It is one of the most profitable airports in the country. In addition, Cochin Airport accounts for about 60% of its total passengers as international traffic⁹².

There have been significant benefits of the PPP model for airport modernization. In recent years, airport infrastructure projects have added new runways and terminals, increased capacity and improving the passenger experience. The PPP model has transformed the airport infrastructure in India, and this is the reason the government appears to be committed to undertaking new projects through this route. this way. It is reported that the government is considering monetizing 25 AAI-managed airports, over the next four years. The move would raise INR20,782 crore in investments.

⁹¹<https://www.ibef.org/industry/indian-aviation.aspx>

⁹²<https://centreforaviation.com/analysis/reports/indias-airport-sector-vibrant-with-tenders-for-six-ppp-concessions-capacity-mumbai-summit-34-feb-2015433>

The National Monetization Pipeline (NMP) considers divesting the AAI residual stake in four airport joint ventures. These include the private sector-sponsored airports in

- Mumbai (26% stake)
- Delhi (26% stake)
- Hyderabad (13% stake)
- Bangalore (13% stake).

The total assets under the management of the AAI that can be monetized account for 18 percent. Hence, the assets worth Rs 20,782 crore are likely to be monetized in FY 2022-25. As part of the ambitious NMP (National Monetisation Pipeline)⁹³, the government has identified 13 sectors, including airports, with the potential to monetize brownfield infrastructure assets. The airports are located in Dehradun, Udaipur, Indore, Coimbatore, Jodhpur, Vadodara, Ranchi, Patna, Tirupati, and Vijayawada.

Technology Integration to Support Market Growth

The International Air Transport Association (IATA) leverages modern technology to put passengers at the centre of journeys and to achieve more efficiency from infrastructure. As a means of improving passenger experience, technology options should be based on what passengers want. In the 2019 IATA Global Passenger Survey, travellers indicated a preference for technology that allows them to track their luggage in real-time and to travel more quickly through airports.

The industry offers solutions for both of these expectations, including One ID for identifying passengers and radio frequency identification (RFID) for tracking luggage. The government, as well as key stakeholders, must support these initiatives. The One ID initiative by IATA is helping to transform the industry. The passengers can go from curb to gate using a single biometric travel token, such as fingerprint, iris scan, or face⁹⁴. The One ID initiative has been endorsed by airlines. Currently, the focus is on ensuring that there is a regulation in place to support a paperless travel experience that will also ensure that their data is protected.

The airports and airlines are working together to track baggage at key points of the journey, for example when luggage is loaded onto and unloaded from aircraft.

Some progress has been made in implementing RFID, especially in China where the technology has gained popularity. Several European airlines and airports have introduced RFID in a successful manner, notably Air France at Charles de Gaulle Airport in Paris.

The Airports Council International's NEXTT initiative (New Experience Travel Technologies) examines how new technologies and processes improve operational efficiency and the customer experience. The initiative could reduce or eliminate queues by increasing off-site processing. It makes use of artificial intelligence and robotics to make space and utilize resources efficiently. It enables stakeholders to share data efficiently among themselves. In addition to providing an opportunity to focus on using

⁹³ <https://indianexpress.com/article/explained/explained-what-is-the-governments-plan-with-the-national-monetisation-pipeline-7468258/>

⁹⁴ <https://www.iata.org/en/pressroom/pr/2019-10-15-01/>

the latest technology standards, NEXTT provides a great way to promote a sustainable future. Poland will play a leading role in implementing the NEXTT vision by building Warsaw's new airport. It is Europe's first greenfield airport in over a decade.

On similar lines as above, a biometric boarding program was introduced at KIA in Bengaluru in 2020 through collaboration with Vision-Box⁹⁵. A total of 350 touchpoints were installed in the airport's Terminal 1 throughout the Digi Yatra project, making it the largest biometric boarding program in Asia.

The program is available to Vistara and AirAsia⁹⁶ airline passengers, allowing them to register their travel IDs, biometric information, and flight details before flying. The check-in process, security screening, and boarding process can all be handled without showing any paperwork. Only a biometric scan will be required, the biometric data would be deleted after the journey is completed. The biometric platform has been implemented with Vistara, and recently with AirAsia, with the One-ID biometric platform. As an integrated biometric processing system built around facial recognition, Digi Yatra is a curb-to-gate project.

Internet of Things (IoT) is another key technology that has found applications within the Indian Aviation Sector. For instance, the Bangalore airport makes use of IoT to transform cold chain cargo. Temperature controlled cargo is monitored using real time supply visibility.⁹⁷

Smart Cities : Airport Ecosystem Driver

Smart cities are innovative initiatives by the Government of India that aim to improve lives, attract investment and set in motion a growth cycle of development. The future is expected to bring better quality infrastructure not only from investment into sectors like roads and airports, but also to private equity investments. Several smart cities are being created across different regions and parts of the country to promote affordable, integrated, sustainable, and inclusive growth. A crucial part of the mission is retrofitting, redevelopment, and greenfield planning in cities, thereby having an impact on the employment market.

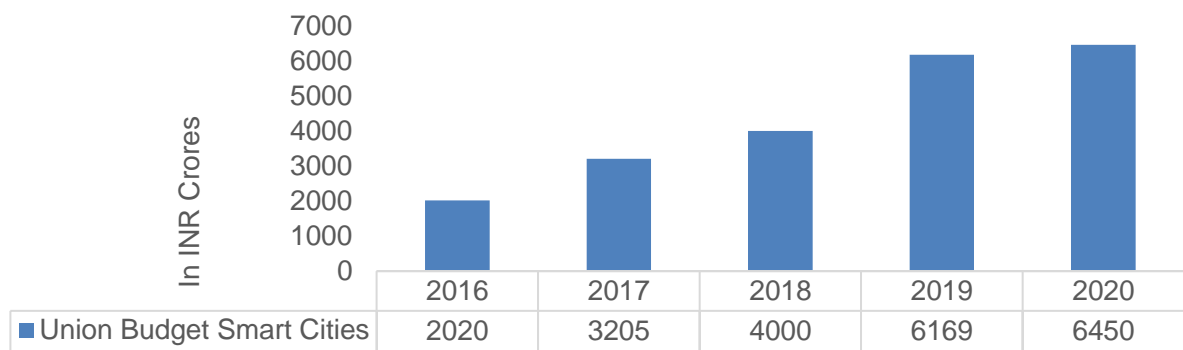
In 2019, Gujarat opened the Dholera International Airport, a new greenfield airport to support Dholera Special Investment Region (DSIR) which is Gujarat's first smart city project. In addition to world-class civic facilities and world-class infrastructure, DSIR will be a global hub for economic activities. In order to expedite the airport project, the Gujarat government formed Dholera International Airport Company Limited, a SPV formed to facilitate the project in a PPP model. In line with other Aerotropolis globally, the proposed airport handles the increasing air traffic from nearby cities such as Rajkot, Anand, Bhavnagar, Vadodara, and Nadiad. As a result, the region will experience high economic growth.

⁹⁵<https://www.outlookindia.com/outlooktraveller/travelnews/story/69899/bengaluru-airport-to-introduce-biometric-technology-for-immigration>

⁹⁶<https://government.economictimes.indiatimes.com/news/technology/digiyatra-project-airasia-india-joins-bangalore-international-airport-to-improve-contactless-boarding/77330075>

⁹⁷ <https://www.dqindia.com/iot-transforming-cold-chain-cargo-bengaluru-airport/>

Figure 48: India, Allocation of Union Budget In Smart Cities Mission



Note: YoY Change versus budget Allocation for the Smart Cities Mission | Source: Hindustan Times

Another example is the smart city project at Noida. In addition to a smart city project to be developed adjacent to the airport site, officials of Noida International Airport Limited (NIAL)⁹⁸ anticipate more foreign investment. Specifically, the smart city next to the airport will have low-rise development and world-class facilities. The NIAL officials are optimistic that more global investors will invest in projects along Yamuna Expressway since Jewar Airport was ranked among the top 100 global infrastructure projects of 2020. The government of India has included the development of a ‘Smart City’ near the airport among its five projects.

Airport Infrastructure in India

The overall development of airport infrastructure is poised to improve passenger handling as well as the capacity of the airport. In terms of demographics, India has the second largest population globally. Therefore, the transport sector has a larger existing consumer base. Schemes like UDAN have been launched by the government of India in order to bolster the existing aviation sector. Rampant privatization of airports is also anticipated to improve the quality of air transport within this country.

Efficient passenger handling at airport terminals is one of the key parameters that influences the capacity modelling infrastructure for airports. Integration of technologies like NEXT and OneID is expected to further optimize the airport experience for the passengers. The use of IT based technologies like IoT and big data is expected to further propel the growth associated with this market.

The growth in the airport infrastructure directly impacts the airport services market within India. The implementation of these schemes is expected to support the growth of airport lounge, food and beverage as well as the retail sector.

Budget Allocations, GOI support trends for Airport Infra

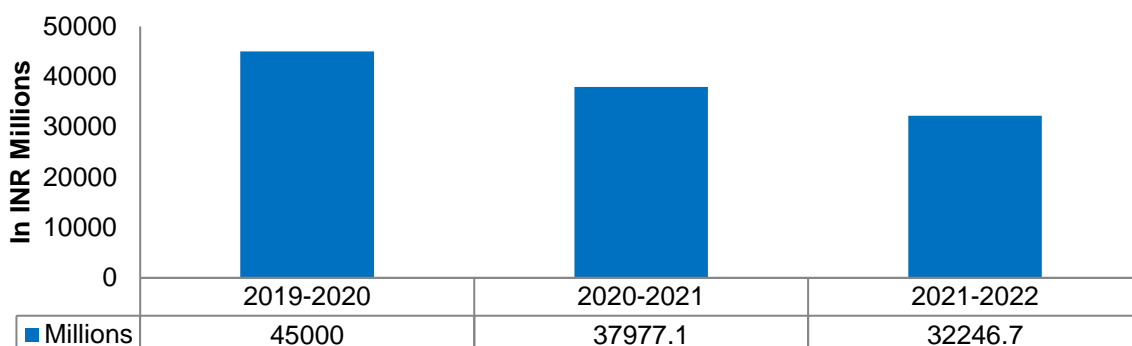
The change in Aviation Budget between the years 2019-2022 has been shown in the Figure below. According to MOCA, between 2019-2020 the aviation budget allocated was

⁹⁸<https://www.hindustantimes.com/cities/airport-smart-city-in-india-s-top-five-projects/story-clcEDUXkS48C0E6kLH7THL.html>

Aerotropolis: An aerotropolis is a metropolitan subregion whose infrastructure, land use, and economy are centered on an airport

recorded to hold a value of INR45,000 million. The drop in the last two years has been due to the pandemic, however it is expected to bounce back with the resumption of air travel load.

Figure 49: Aviation Budget Allocation⁹⁹

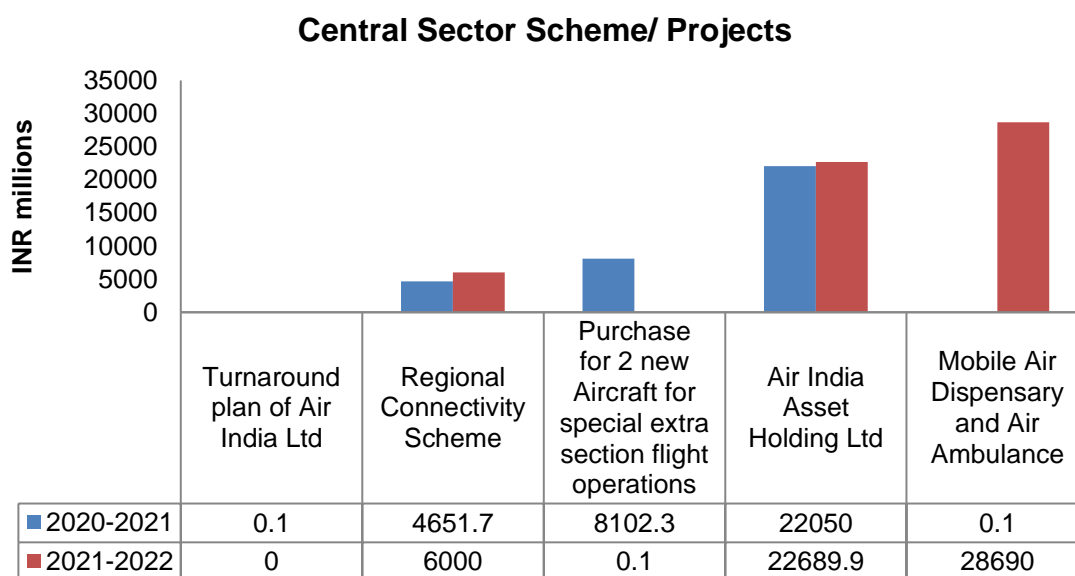


Note: Change in Aviation Budget between 2019-2020 | Source : MOCA

The Budget allocation for some of the key programs to be conducted by the Indian government has been shown in the Figure below.

According to the given figure, the investment for the Regional Connectivity Scheme (UDAN) is expected to increase by 28.9%. The scheme is focused on upgrading underserved routes for the Indian Aviation Sector.

Figure 50: Central Sector Scheme/Projects, Rupees (millions)



Note: Investment in Central Sector Scheme Projects Comparison between 2020 and 2021 | Source: MOCA

⁹⁹ <https://www.indiabudget.gov.in/doc/eb/sbe8.pdf>

Key Initiatives-5 Year Plan

- An investment of Rs. 350,000 Million¹⁰⁰ (USD 4.99 billion) is to be made in the next 4 years by the Indian government to support the aviation sector.
- The Indian Government has planned on investing roughly USD 1.83 billion by 2026 for the development of airport infrastructure.
- The government also plans on upgrading the airport navigation system.
- A major asset monetizing exercise has also been undertaken by the Indian government, i.e. the privatization of 13 airports.
- The government has been aiming for private investment of Rs 3,660 crore in airports by FY24.
- Presently, the AAI has approved the privatization of 6 major airports which including, Bhubaneshwar, Varanasi, Amritsar, Trichy, Indore, and Raipur.
- Other smaller airports which are to be privatized are Jharsuguda, Gaya, Kushinagar, Kangra, Tirupati, Jabalpur, and Jalgaon. In this initiative, the lease to be issued would include smaller airports clubbed with larger ones.
- This initiative is expected to promote the upgrade of both non-profitable airports and profitable ones.¹⁰¹
- The upgradations for these airports are expected to enhance the customer experience. Therefore, the privatization of airports can be viewed as a key opportunity for lounge operators in terms of exploring new markets.

Table 9: Airport Pairings for Privatization, FY 2020

Major Airport	Profit/Loss (Crore)	Smaller Airport	Profit/Loss (Crore)
Amritsar	0.92	Kangra	-9.72
Bhubaneshwar	34.22	Jharsuguda	-16.92
Trichy	22.85	Tirupati	-35.13
Indore	4.47	Jabalpur	-19.42
Raipur	-26.65	Jalgaon	-3.72
Varanasi	-1.6	Gaya Kushinagar	-24.68

Source : AAI

¹⁰⁰ <https://www.ibef.org/industry/indian-aviation.aspx>

¹⁰¹ https://www.business-standard.com/article/economy-policy/government-gives-final-approval-to-privatise-13-airports-121090900575_1.html

Trend of Increasing Privatization

As of 2021, an increased investment is observed in Air India Asset Holding Ltd within the Indian Aviation Budget released by MOCA. This is because the government announced a 100% stake sale for Air India. Both the subsidiaries for Air India, i.e. low-cost international carrier Air India Express and ground-handling arm AISATS are to be sold. The government has also announced to hive off liabilities worth Rs 40,000 Crore.

The Capital assets are being transferred from Air India Ltd to Air India Assets Holding Ltd (AIAHL). The government also exempted Air India Ltd from tax collected at source provisions under the Income Tax (IT) Act on the sale of goods. This strategic anointment makes Air India more lucrative and attractive for potential buyers.

Air India Ltd has incurred Losses since the year 2007, therefore privatization would hereby help stabilize the financials for this organization. This move is also expected to streamline operational costs as well as improve the onboard services.¹⁰²

In October 2021, TATA Group was announced as the winner of the Air India bid. The TATA Group is a key stakeholder within the Indian aviation sector. The company owns Air Asia India as well as Vistara. Air Asia is a low-cost carrier service while Vistara is a full carrier service. This change in ownership of Air India could have its impacts in both the domestic and international markets.

Privatization of airlines / airports is expected to enhance the quality of air travel and in turn, boost the aviation sector. This strategic decision provides financial democracy and helps increase the competitiveness of the market by the introduction of foreign partners and global best practices.

UDAN Scheme

UDAN (UdeDesh ka Aam Naagrik) aims to link underserved and unserved airports in the country. The Regional Connectivity Scheme (RCS) aims to increase inter-regional connectivity by connecting 70 airports through 128 routes operated by five airlines. According to the latest findings, of 70 airports, 31 are unserved and 12 are underserved. An under-served airport is one that has less than a flight per day, whereas an unserved airport has none.

A total of 128 routes will be operated by five airlines, including SpiceJet and an Air India subsidiary, Airline Allied Services. During the commencement of the scheme, Airline Allied Services and SpiceJet operated 15 and 11 routes respectively. There were 50 routes under Air Odisha Aviation's banner, followed by 34 under Air Deccan, and 18 under Turbo Megha Airways. Each carrier flies aircraft with a seating capacity of 19-78. The Ministry of Civil Aviation has approved 780 new air routes as part of the UDAN scheme for regional air connectivity.¹⁰³

UDAN 3.0 was the defining principle behind Indigo airlines' maiden flight from Agra to Lucknow in 2021. On that route, the airline used its ATR 72 aircraft. The AAI operates

¹⁰² <https://www.thehindubusinessline.com/opinion/columns/slate/all-you-wanted-to-know-about/article33386790.ece>

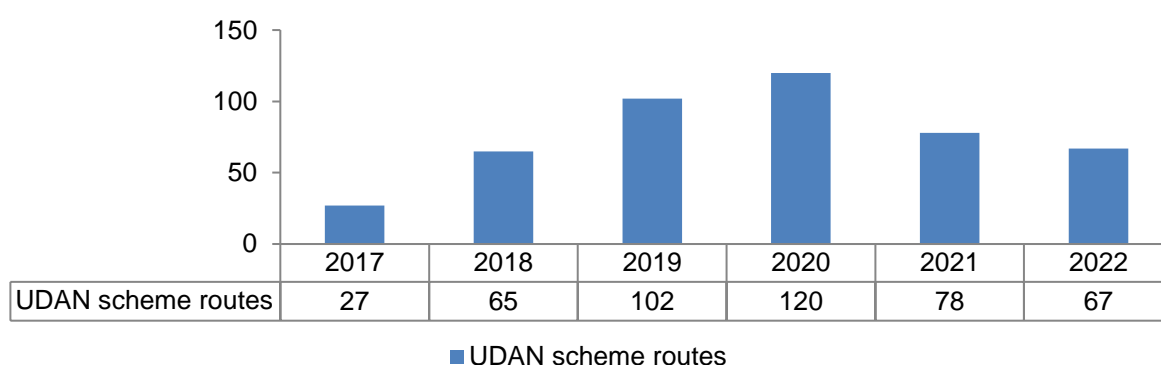
¹⁰³ <https://www.aai.aero/en/rcs-udan>

Agra Airport which is owned by the Indian Air Force. In addition to Ahmedabad and Bangalore, Lucknow is now connected to Agra by direct flights. As a result of these new flights, tourists and common people will have more options for tourism and travel within the region, stimulating the region's economy. As of today, 371 routes and 60 airports (including 2 water aerodromes and 5 heliports) have been operationalized by the scheme. Additionally, additional flights will also be offered from Kanpur and Lucknow soon.

A new airport is set to open in Sindhudurg on 9 October 2021. Moreover, Alliance Air has begun offering flights between Mumbai and Sindhudurg. The development of Sindhudurg Airport in the region will improve air connectivity to various locations in Western Maharashtra, Northern Karnataka, and parts of Goa. As a result, the region's tourism industry will enjoy a significant boost.¹⁰⁴

The Civil Aviation Ministry's agenda over the next year includes the construction of the Kushinagar airport and the Jewar airport in Uttar Pradesh.¹⁰⁵ It will aid in launching 50 new routes under the UDAN scheme. Other airports under the scheme are Deoghar in Jharkhand, Gondia and Sindhudurg in Maharashtra and Keshod in Gujarat. Several heliports including Sanjoli, Mandi Baddi and Sase in Himachal Pradesh will operate soon. The heliports in Haldwani and Almora in Uttarakhand will soon be operational.

Figure 51 Routes Developed Under UDAN Scheme¹⁰⁶



Source : MOCA

In FY 2019 and FY 2020, 102 and 120 RCS routes started operation, respectively. As a result of the COVID-19 pandemic, there were 77 new routes in FY2021. In addition, the amount incurred by the central government in FY2018 - FY2021 was Rs 3,350 crore, and the amount planned for FY2022 is Rs 1,130 crore.¹⁰⁷

¹⁰⁴ <https://www.financialexpress.com/infrastructure/airlines-aviation/new-airport-to-boost-tourism-in-konkan-region-alliance-air-announces-mumbai-sindhudurg-flights-from-this-date/2336146/#:~:text=The%20Sindhudurg%20airport%20is%20all,Sindhudurg%20from%20the%20same%20day.>

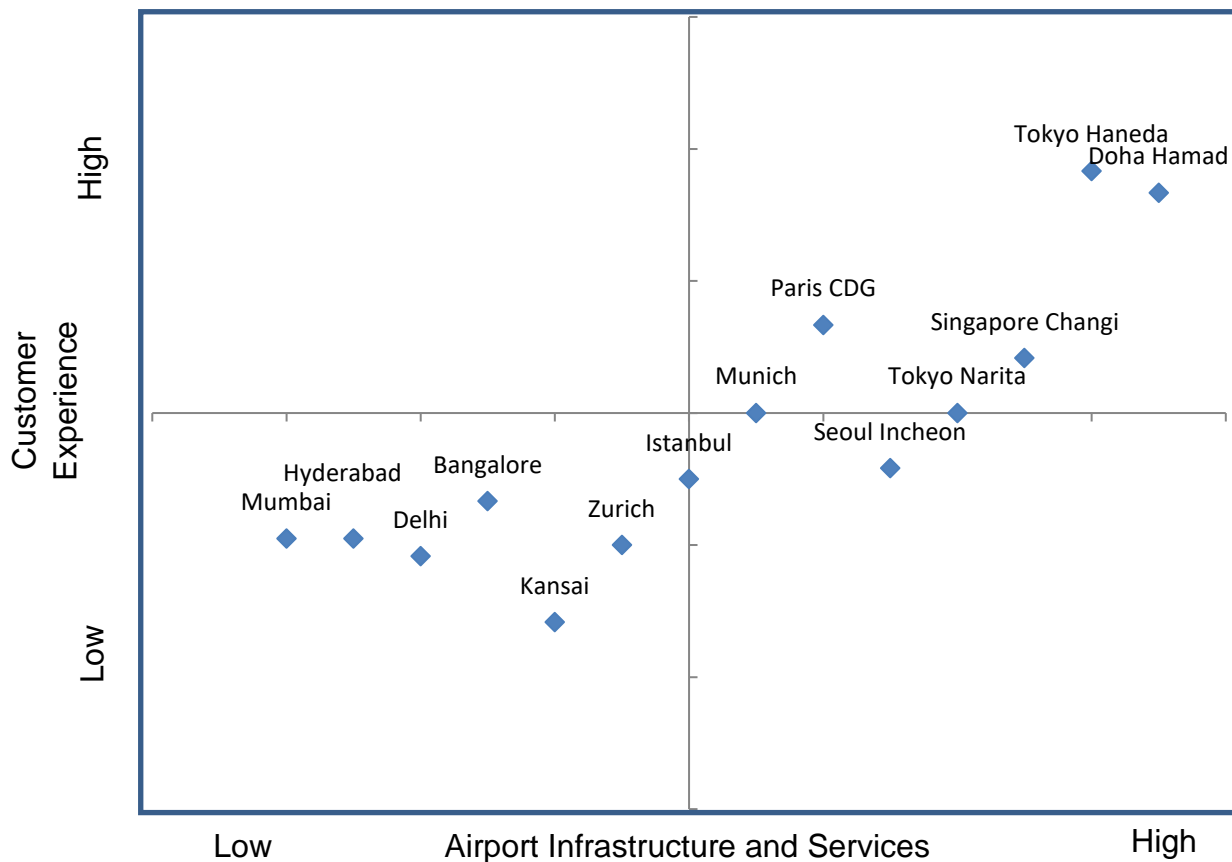
¹⁰⁵ <https://www.financialexpress.com/infrastructure/airlines-aviation/aviation-sector-takes-flight-in-up-kushinagar-ayodhya-jewar-airports-add-to-states-major-infra-upgrade/2217402/>

¹⁰⁶ <https://sarkariyोजना.com/list-airports-udan-scheme/>

¹⁰⁷ <https://www.civilaviation.gov.in/sites/default/files/annual-report-2019-2020.pdf>

Indian Airport Services

Figure 52: Indian Airport Services Compared to Global Standards, 2022¹⁰⁸



Note: Indian Airport Services compared to the top 10 Airports worldwide, base data taken from secondary sources, given in the footer | Source: World Airport & Frost & Sullivan Analysis

In the above Figure, the top 10 Airports globally have been benchmarked against Indian airports based on customer ratings and services provided.

Doha Hamad, Tokyo Haneda, and Singapore Changi are recorded to be the top 3 airports globally based on the quality and extent of provided services as well as the customer experience based on satisfaction rating. The Hamad International Airport has the highest customer satisfaction rate in terms of long layover services provided. It is regarded to be one of the best airports in terms of Leisure and Amenities.

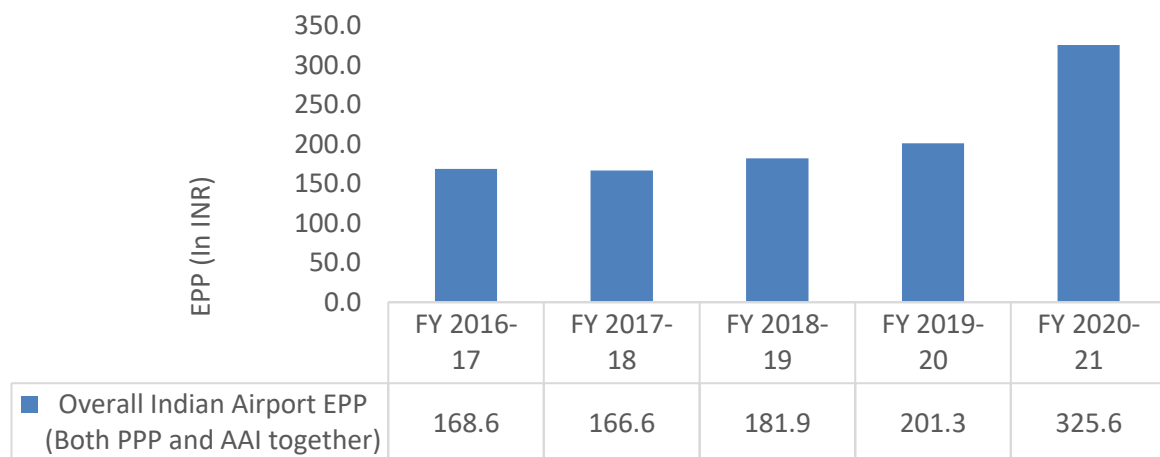
Delhi, Bombay, and Bangalore are regarded to be the busiest airports within India.

¹⁰⁸ <https://www.worldairportawards.com/the-worlds-top-10-airports-of-2021/>

Non- Aeronautical Earnings per Passenger

The non-aeronautical earnings per Passenger was at INR 168 in 2016-2017 and has almost doubled to INR 325 in 2020-2021. The development of retail spaces, lounges, restaurants and other facilities have contributed to the growth in earnings per passenger. As air travel resumes and there is a growth in both the number of passengers and per-capita income, the non-aeronautical revenue is expected to resume its upward trajectory.

Figure 53: Earnings Per Passenger, INR, FY 2017- FY 2021¹⁰⁹

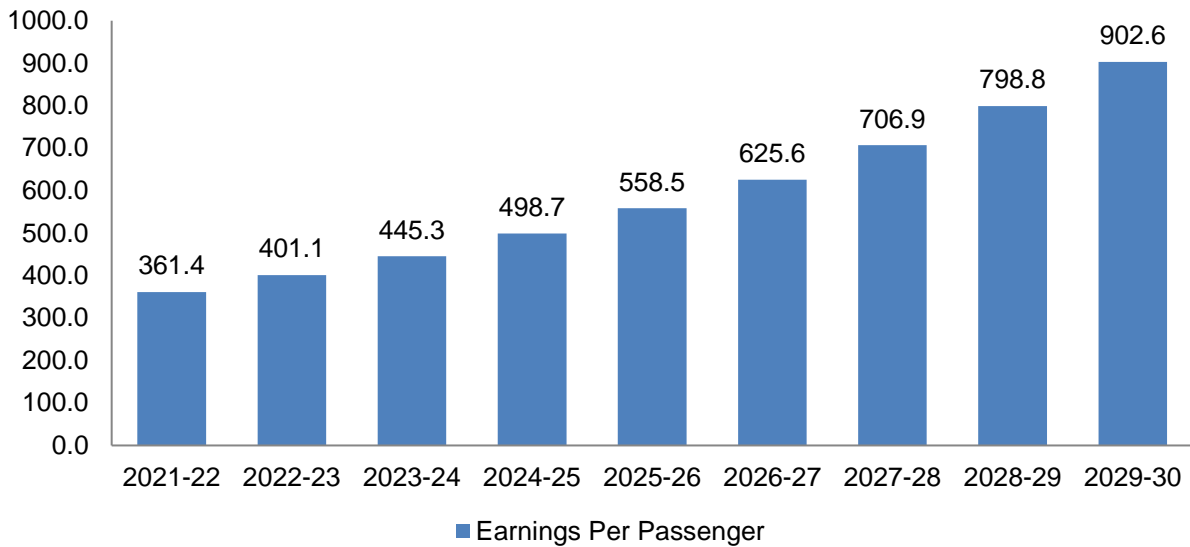


Note: Non-Aeronautical Earnings per passenger in INR for 2016-2021. All values are FY | Source : AAI and AERA

The share of Non- Aeronautical revenues for private airports like Delhi, Mumbai and Bengaluru varied between 50%-70% of their overall revenue. However, the non-aeronautical revenues from AAI managed airports were around 10%-15%. This is an indicator of how passengers are willing to spend more if provided with better services and will benefit the lounge market among other retail spends by passengers.

¹⁰⁹ https://www.aai.aero/sites/default/files/AAI_Annual%20Report_2017-18_%20English.pdf
https://www.aai.aero/sites/default/files/AAI_Annual_Report_English.pdf

Figure 54: Earnings Per Passenger Forecast, FY 2022- FY 2030, INR

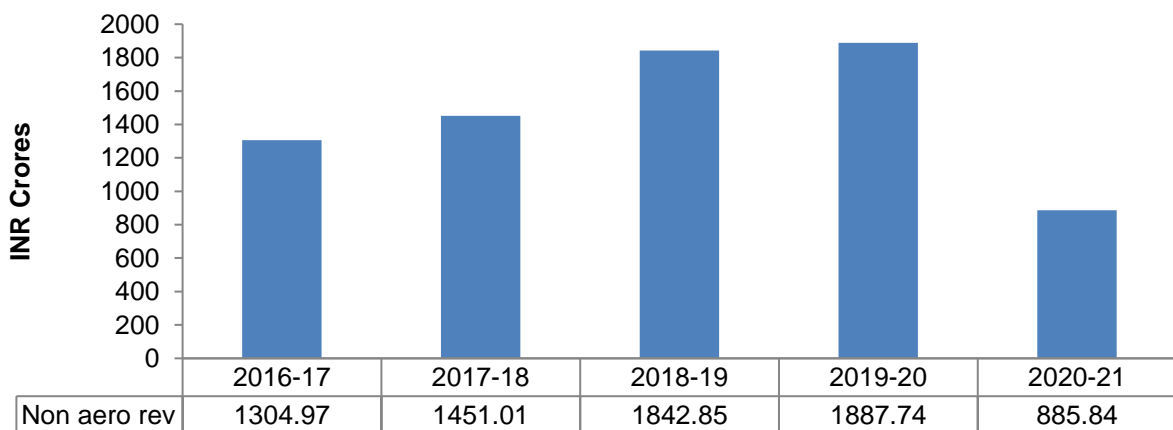


Source: Frost & Sullivan Estimates

Overall Airport Services Market Size

The overall airport services revenue (AAI Only) has been shown in the figure below. The airport services registered a high growth from INR 1304.97 crores in 2016-2017 to INR 1842.5 crores in 2018-2019. The increase in 2019-2020 was marginal at 1887.74 crores due drop in traffic in the last quarter due to the early effect of pandemic. In 2020-21, a sudden drop in Non-aeronautical revenue and accounted to INR 885.84 Cr.

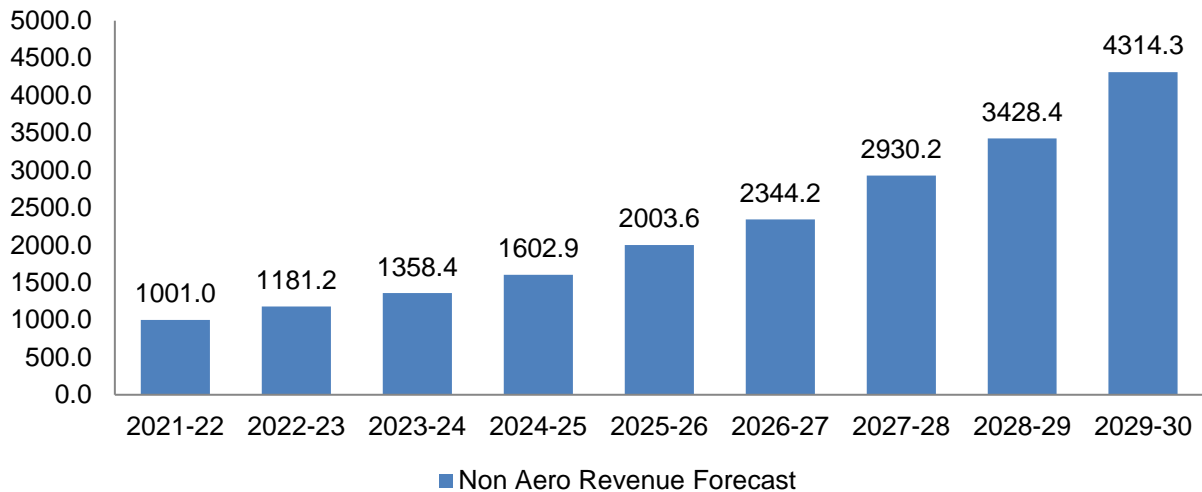
Figure 55: Non-Aeronautical Revenue FY 2016-2017 to FY 2019-2021¹¹⁰



Note: Non-aeronautical Revenue in INR Crores for 2017-2021. All values are FY | Source : AAI

¹¹⁰ https://www.aai.aero/sites/default/files/AAI_Annual%20Report_2017-18_%20English.pdf
https://www.aai.aero/sites/default/files/AAI_Annual_Report_English.pdf
https://www.aai.aero/sites/default/files/AAI_Annual_Report_English.pdf

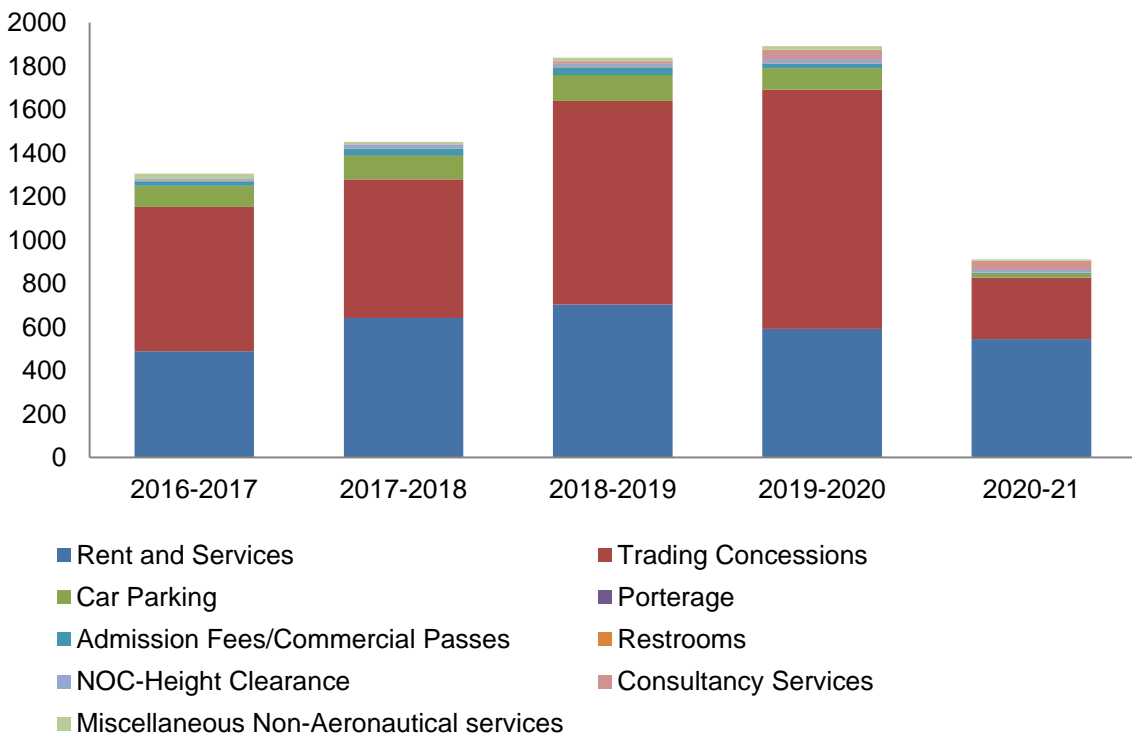
Figure 56: Non-Aeronautical Revenue, Forecast, FY 2023- FY 2030, INR (In Crores)



Source: AAI & Frost & Sullivan Estimates

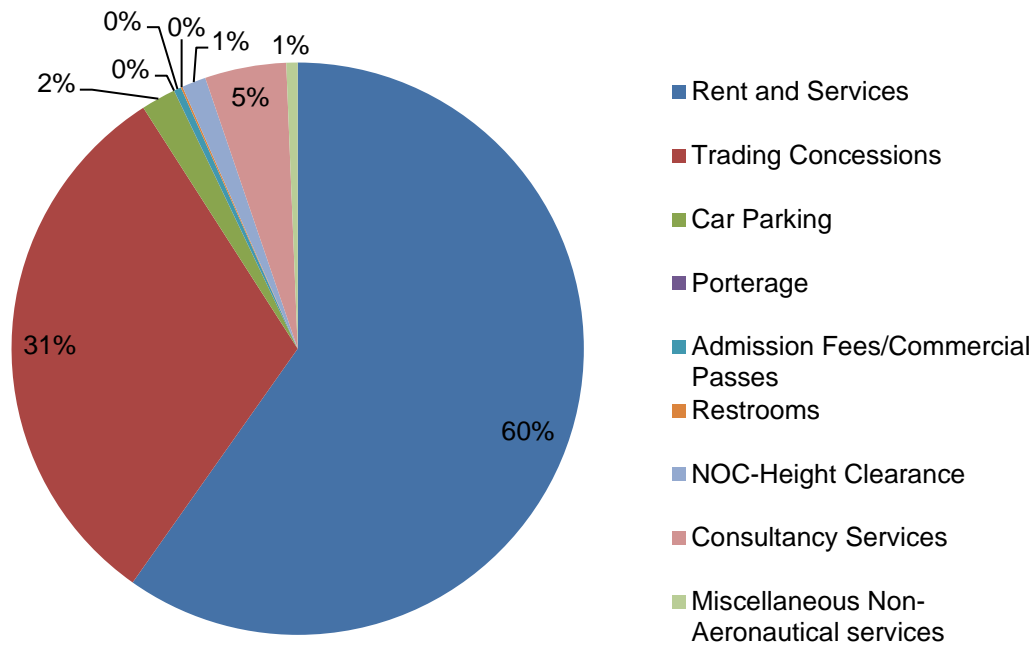
Trading concessions, rent and services, and car parking form the largest segment of the aeronautical revenue as can be seen in the figures below. Further, rents and services dropped as percentage of total share in 2019-2020 due the pandemic effect in last quarter. Going forward, this is not only expected to regain its original share but also show a higher growth due the various factors of increase in number of passengers and rising disposable income as discussed earlier in the report.

Figure 57: Key Revenue Segments within the Airport Services Market, FY 2017-FY 2021, INR Crores



Note: Change in Revenue generated by Key airport services between 2016-2020 | Source: AAI

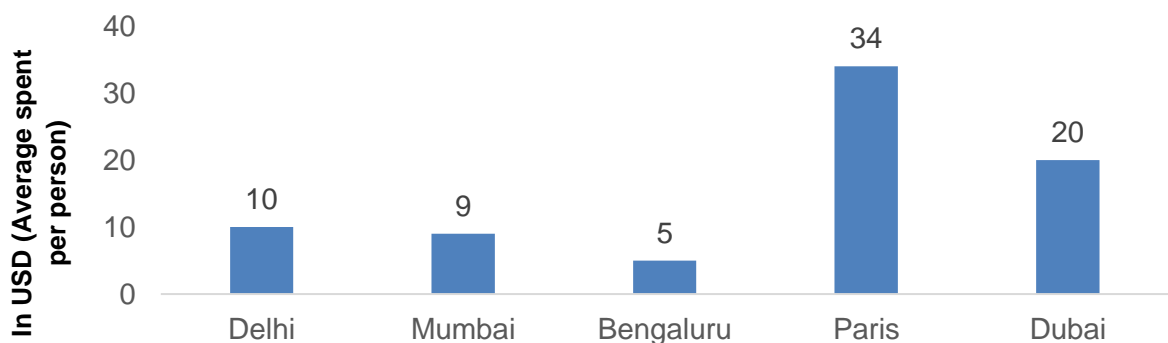
Figure 58: Non-Aeronautical Revenue Split for the year 2020-2021¹¹¹



Note: Key Revenue segments by percentage for 2019-2020, lounge rentals could be a part of rent and services or Concessionaries | Source : AAI

Duty Free Spend Indian Airport vs Global Airports

Figure 59: Duty Free Spend Indian Airport VS Global Airports, 2019¹¹²



Source: AAI

The duty-free spending at Indian airports is very low when compared to international airports. In the Indian airports, the highest spend is at Delhi airport which is 50% when compared to Dubai. However, these numbers are poised to increase with the increase in

¹¹¹ https://www.aai.aero/sites/default/files/AAI_Annual_Report_English.pdf

¹¹² <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/airport-retail-opportunity-in-india-to-grow-to-9-3-bn-by-2030-from-1-4-bn-study/articleshow/74302134.cms?from=mdr>

International travel from airports like Delhi, Mumbai and Bengaluru. It is important to note that airport traffic at Paris and Dubai are supplemented by the presence of the home-grown international airline, like Emirates and Air France. The takeover of Air India by TATA could be the first step towards a similar model being created in India.

The Government alongside private players are investing into development of the overall Airport Infrastructure of the country. The rise in Middle class income group, with affordability to air travel, UDAN scheme, aimed at connecting regional airport, growth in fleet in India and the competitive airline market are the key drivers which are expected to act as boosters to the duty-free spending in India.

Indian Airport Market Outlook- 2040

There are 126 operational airports owned by the Airports Authority of India (AAI). It is one of the largest airport operators in the world. In addition, AAI's responsibility involves the provision of Air Navigation Services (ANS) over India's airspace and the Indian Ocean. Currently, six airports are operated under the PPP model namely Mumbai, Delhi, Bengaluru, Cochin, Nagpur and Hyderabad. A PPP model is proposed for six more airports in Jaipur, Lucknow, Ahmedabad, Guwahati, Mangalore and Thiruvananthapuram.

The AAI will then be able to focus on small airports in the hinterland, where private capital flow is unlikely. India had around 99 operational airports in FY 2018 according to FICCI document and this increased to 126 airports in FY 2022 This is expected to increase to 295 airports by FY 2040.

In India, the top 15 airports still handle the majority of the air traffic. A total of 83% of India's traffic was handled by the top 15 airports in FY 2018¹¹³. The Indian economy is expected to mature and spread to the rest of the country. As a result, non-metro cities will drive future growth in the Indian aviation market.

The Regional Connectivity Scheme plans to boost aviation connectivity in India's unserved and underserved airports. As part of this program, state governments provide a predetermined number of seats as a subsidy on routes and airlines bid on how much light capacity they will subsidize. In addition to the subsidy, the selected airline enjoys exclusive rights to that route for three years. In addition to fiscal incentives, UDAN has attracted considerable interest from domestic carriers and small start-ups.

The Ministry of Civil Aviation (MoCA) released the draft International Air Connectivity (IAC) scheme or the International UDAN scheme in August 2018¹¹⁴. The scheme aims to connect non-metropolitan cities that fall under India's open skies policy with other Asian nations. As of now, the government has identified eight potential routes for international UDAN implementation. Among them, six routes will connect Guwahati with Dubai and Singapore, and two routes will connect Vijayawada with Dubai and Yangon.

In FY 2018, Delhi had 66 million passengers, ranking seventh-largest airport in Asia. When its fourth runway and fourth terminal are completed by 2024, the airport will see

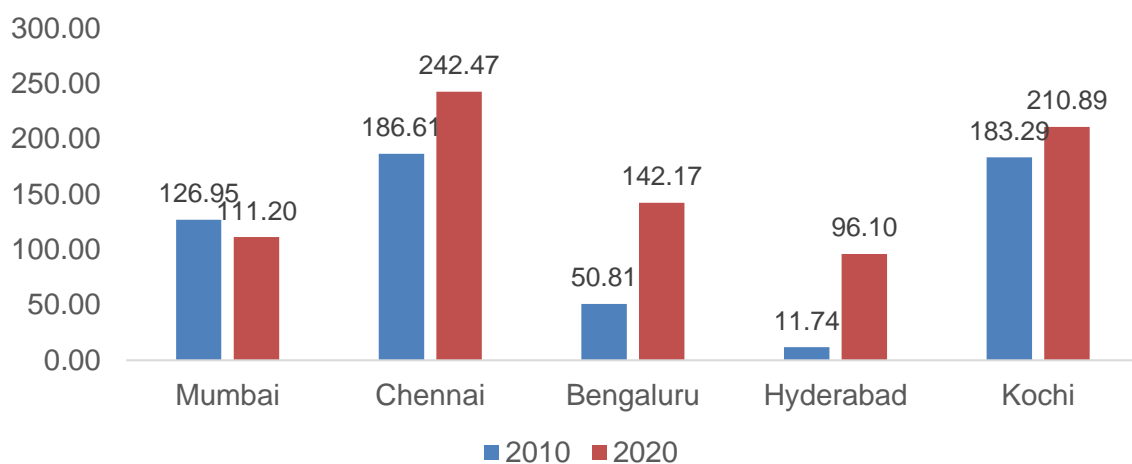
¹¹³ <https://ficci.in/spdocument/23493/civil-aviation-report.pdf>

¹¹⁴ <https://www.thehindubusinessline.com/opinion/columns/slate/all-you-wanted-to-know-about-international-udan/article25289960.ece>

significant growth ¹¹⁵. In Mumbai, Goa, Vizag, and Pune, second airports are being planned. The construction of Navi Mumbai and Mopa airports (in Goa) is underway. The airport at Bhogapuram in Andhra Pradesh is currently in the bidding phase. It is expected that Pune's second airport at Purandar will be put up for bid soon. In December 2018, a new international airport at Kannur in North Kerala was commissioned. The same year, the 100th airport in India was inaugurated at Pakyong in Sikkim. It is expected to benefit the state's tourism and connectivity industries. At one time, Sikkim was only accessible by Bagdogra airport and by Siliguri railway station, both located several hours away.

India has proven that it can do business through public-private partnerships. This project attracted over USD 5 billion in investments, facilitated a world-class experience for domestic and foreign travelers, generated commercial revenue for the government, and generated jobs in the tourism, manufacturing, and global trade sectors. In India, public-private partnerships remain a means of financing. It is not the financing of PPPs that creates its value, but innovation in the design of assets, risk management, and operation efficiency. PPP projects with adequate government support, such as Delhi and Mumbai airports generate substantial cash inflows for the government.

Figure 60: Passengers Handled Per Square Meter, India, FY 2010 VS FY 2020



Note: Passengers Handled Per Square Meter is defined as the total terminal area and the total passengers handled in the airport in 2010 and 2020

Source: FICCI

A significant increase in the number of passengers handled per square meter as shown above is likely to spur the government for investment in additional airports to serve the high growth cities as seen in Navi Mumbai case. This will also spur the investment in T2, Mumbai Airport has helped in reducing the passengers handled per square meter. Hyderabad airport is expected to kick start its airport upgrade; the upgraded terminal is expected to be functional in FY2022.

¹¹⁵ <https://ficci.in/spdocument/23493/civil-aviation-report.pdf>

CARD INDUSTRY (CREDIT AND DEBIT)- INDIA

The credit card industry in India is experiencing high growth. The credit card market grew from around 33 million outstanding cards in Sept 2017 to around 65 million outstanding cards in Sept 2021 at a CAGR of 18.17%. The number of outstanding credit cards in Dec 2021 –were 68 million representing a growth of more than 13% over Dec 2020. Similarly, there were around 819 million outstanding debit cards in Sept 2017 which grew to 920 million debit cards in Sept 2021 growing at a CAGR of 2.93%. Outstanding debit cards are expected to surpass 1 billion next 2-3 years. The exponential increase above the average for 2018-2020 is due increased adoption of digital economy due COVID. New debit card issued is experiencing a mild decline over the past three years, however this is expected to bounce back with the improvement in the post COVID economic scenario The increase in credit/ debit cards bodes well for players like DreamFolks who stand to benefit from the card loyalty programs targeting lounge access.

Review of Digital Economy

The penetration of digital transactions has been slow pre-pandemic Customer base for digital transaction platforms has increased by 128% between CY 2019-2020 owing to the pandemic. The Indian economy has been moving away from paper cash to plastic and e-money as a means of transfer. -. This form of payment facilitated business and curtailed the spread of the pandemic at the same time-

Digital payment via credit/ debit cards , QR codes, UPI, wallets etc. gained popularity in terms of both customer convenience and safety The increased demand for contactless payment has led to a subsequent increase in the number of payment gateways.

A 173% increase (between CY 2019-2020) was witnessed in the number of contactless transactions has been witnessed owing to an increase in digital payment volumes across grocery stores, vegetable vendors, online pharmacies, and other retail outlets. Bill payments among OTT (Telecom and media) and EdTech players have also spurred the market growth for digital payment solutions.

The increased digital transformation has far-reaching consequences on the banking sector and this trend is expected to continue in the long term. Both Indian FinTech and Digital payment companies have offered a range of user-friendly and integrated technologies that boosts customer adoption for this market. The growing availability of low-cost data plans and the increased use of mobile services is also anticipated to support the market expansion. A shift from offline to online shopping channels has also provided a fillip to the adoption of digital technologies.

The reliance on data, AI, and IT core systems is poised to increase during the pandemic. The penetration rate for digital technology-based tools and other innovative solutions is anticipated to increase owing to a growth in the requirement for connectivity. A rise in the

adoption of aggregator apps, hyper-local vendors, online classroom applications, etc has led to an increase in data-based economic services.¹¹⁶

The long-lasting effects of the pandemic have increased the proliferation of digital transaction platforms. The COVID-19 pandemic has reshaped the economy and the behavioral patterns of the customer. To stay competitive, organizations across India must adapt to the change in market trends. The change in customer patterns has to be studied and adopted by businesses to meet the end-users demand.

Past Trends and Way Forward for the Credit Card and Debit Card Market

Drivers

Increased Co-Branded Offering

These credit cards are ideal for purchases at a single merchant only. Every purchase is rewarded in the form of offers which can be ideal to draw more customers. Private label and co-branded credit cards drive value in terms of both retailers as well as issuers, thus propelling the number of credit cards issued. As an outcome of our survey that was conducted as a part of this study, it can be inferred that the additional feature to access airport lounges is growing popularity amongst credit card subscribers and is also one of the important decision-making aspects while choosing a credit card. The issuers of credit cards are also trying to include this feature into their offering. The other aspirational factors include discounts, reward points are becoming primary decision-making aspects.

Rise in Spending Potential

Between the years 2013-2019, the leverage or liabilities for households increased by a factor of roughly 1.9 in India. The disposable income between the same period peaked by a factor of 2.3. The mentioned rise in spending potential amongst the population is one of the key factors that drive the credit card market. The rise in disposable income between 2019-2020 increased by 0.8 and the liabilities grew by a factor of only 1.1. The growth registered is seen to be smaller owing to COVID-19.¹¹⁷

Digital Economy Uptake

A clear shift in trends is seen within the past decade from cash payments to cashless transactions. Factors like demonetization were some of the key drivers for the growth in the Indian cashless economy. The increased adoption of plastic money is one of the

¹¹⁶ <https://timesofindia.indiatimes.com/business/india-business/from-street-to-screen-economy-how-has-covid-19-accelerated-digital-transformation/articleshow/84815847.cms>

¹¹⁷ <https://economictimes.indiatimes.com/news/economy/indicators/disposable-income-growth-of-households-falls-to-0-8x-in-fy20-may-contract-this-fiscal-report/articleshow/77766871.cms>

primary drivers for the credit card and debit card market. ¹¹⁸ India's Credit and debit card circulation is roughly 0.5 times the cash circulation. ¹¹⁹

Growth in E-commerce

The growth of e-commerce has led to increased popularity for plastic money. The surge in the number of users for online shopping platforms is one of the key factors that drive the increased adoption of credit and debit cards. It is noted that 50% of online shopping takes place via credit cards. ¹²⁰

Demographic Trend

The use of credit cards has been increasing amongst the Indian urban population.¹²¹ The working population within India accounts for a major segment of this value. As of Jan 2021, the overall working population in India was quantified to account for a value of 400.7 million. However, the retail credit card market stated that roughly 200 million customers were credit active.¹²²

Restraints

Increased Unemployment

The percentage of unemployment due to COVID was noted to be roughly 12% between the years 2020-2021. ¹²³The economic downturn due to COVID-19 led to a decrease in spending potential as well as disposable income amongst the population. The decrease in spending potential has negatively impacted the number of credit cards issued within the same period.

Alternative Payment Options

Growth in mobile payment platforms is one of the key factors that serve as a restraint for the credit card sector. The use of applications like Simpli, Pay, LazyPay, etc has reduced the demand for credit cards. Other features like Paytm Pay later are also expected to limit the growth for this market. ¹²⁴

Credit Risk

¹¹⁸ <https://www.ijrte.org/wp-content/uploads/papers/v8i1/A9218058119.pdf>

¹¹⁹ <https://m.rbi.org.in/SCRIPTs/PublicationReportDetails.aspx?UriPage=&ID=923#ANF>

¹²⁰ <https://indianonlineseller.com/2015/09/strong-growth-of-ecommerce-pushes-sales-of-plastic-money>

¹²¹ <https://timesofindia.indiatimes.com/business/india-business/credit-card-use-on-the-rise-among-indian-consumers-survey-finds/articleshow/60842723.cms>

¹²² <https://www.financialexpress.com/money/half-of-indias-working-population-of-400-million-people-credit-active-says-report/2280435/>

¹²³ <https://timesofindia.indiatimes.com/readersblog/small-thoughts/impact-of-covid-19-on-employment-in-india-33336/>

¹²⁴ <https://www.livemint.com/technology/tech-news/virtual-credit-cards-buy-now-pay-later-for-those-with-no-credit-lines-1562744813721.html>

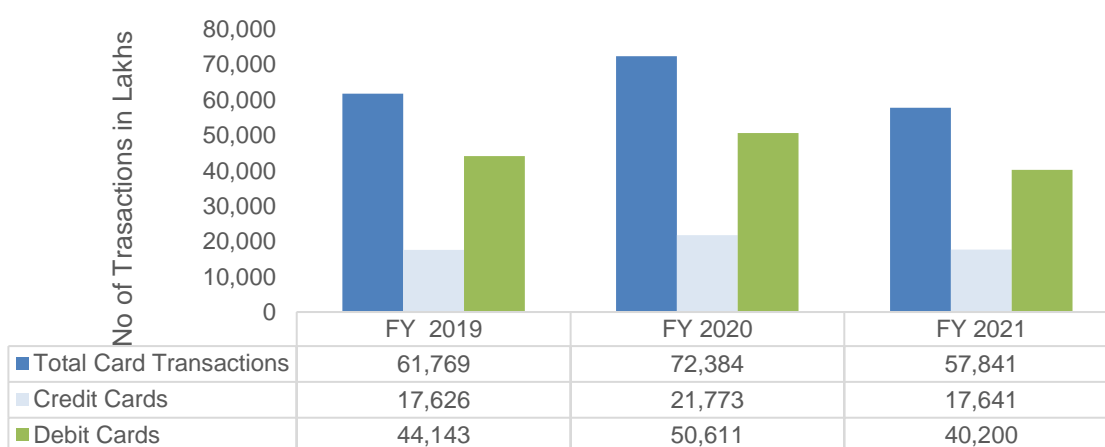
Credit Risk is one of the key challenges within the credit card sector. Improper risk management could lead to potential challenges in terms of bank profitability. This could increase loan losses and non-performing loans. However, in 2019 the percentage savings rate increased, thus increasing the disposable income. This ultimately resulted in an increased number of users with credit protection during the financial crisis for 2020.¹²⁵ Risk resistance amongst the population is also expected to be a key challenge within the market. This in turn reduces the number of potential customers for the credit card industry.

Transaction Volumes – POS and Digital Payment

POS

By Volumes of Credit and Debit Card Transactions

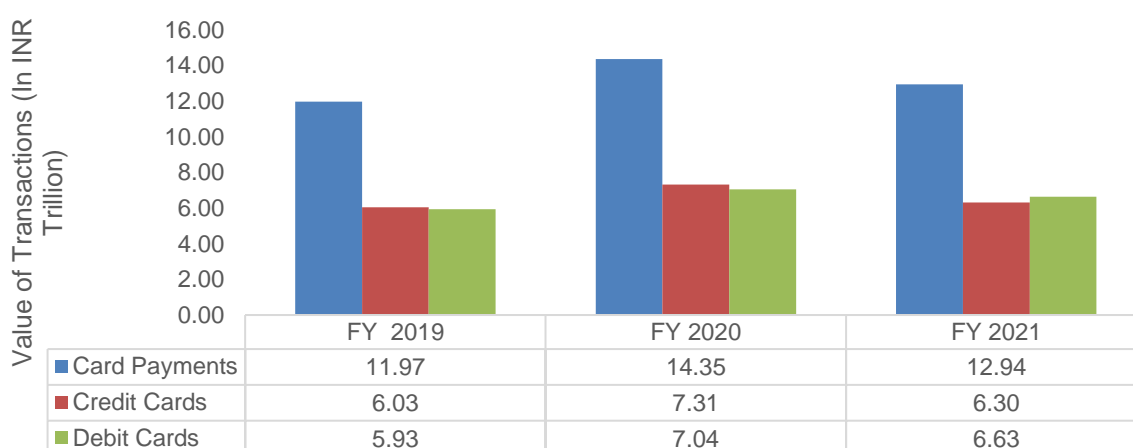
Figure 61: Historic Data, Transaction Volume (No of transactions), By POS¹²⁶



Note: Historic Data for No of Transaction by POS (In Lakhs). Source: RBI

By Value of Credit and Debit Card Transactions

Figure 62: Historic Data, Transaction Value, By POS FY 2019- FY 2021



Note: Historic Data for Value of Transaction by POS (In INR Trillion). Source: RBI

¹²⁵ <https://news.cuna.org/articles/115029-factors-affecting-credit-card-lending-in-2019>

¹²⁶ <https://rbi.org.in/Scripts/ATMView.aspx>

Observations for Credit and debit Card

- The total number of transactions reduced during the period FY 2019 to FY 2021 by 2%.
- The total value of transactions increased from 11 Lakh Crores in 2019 to 12 Lakhs crores in FY 2021, at a CAGR of around 3%.
- The transactions volumes using credit card increased marginally at a CAGR of around 0.03%.
- The transactional volumes of Credit card decreased by 3%.
- The overall credit card transactions in FY 2021 was around 6 Trillion, compared to FY 2020, which was around 7.3 Trillion.
- FY 2021 witnessed a dip in the usage of Credit and Debit card compared to FY 2020.

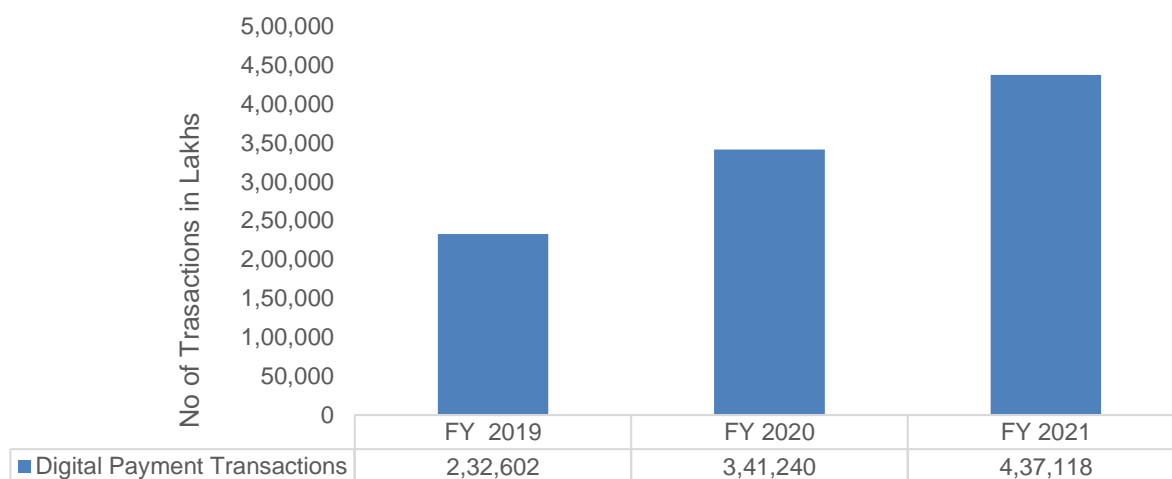
Digital Payments

Observations for Credit and debit Card

- The number of transactions through digital payments increased by a CAGR of around 23% compared to 2019.
- The value of the transactions reduced by a CAGR of around 5%.
- The total value of the transactions was around 14 Lakh Crores.
- Digital transactions could reach INR 15 Trillion a day in 2025, which is 3X times the digital daily transactions in 2020.

By Volume of Digital Transaction

Figure 63: Historic Data, All Digital Payments, By Credit and Debit FY 2019-FY 2021 (No of Transactions)¹²⁷

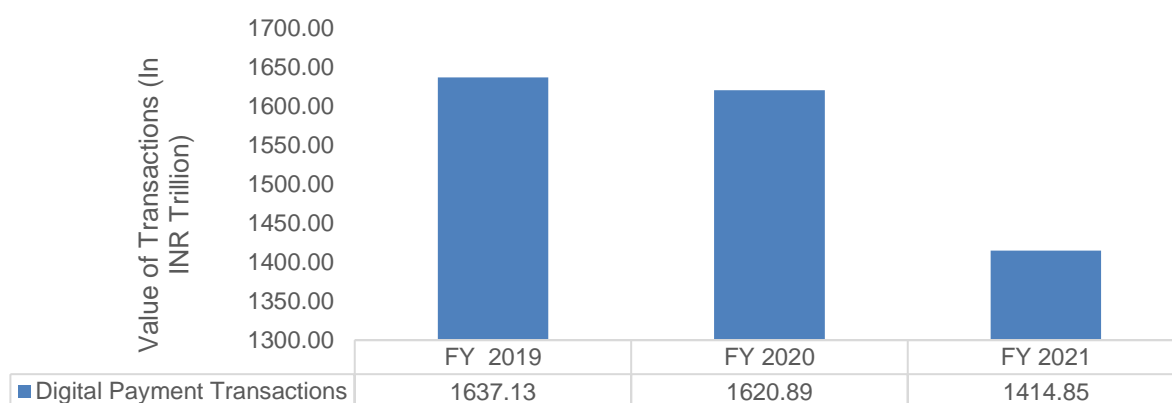


Note: Historic Data for No of Digital Transaction (In Lakhs). Source: RBI

¹²⁷ https://rbi.org.in/scripts/AnnualReportPublications.aspx?Id=1322#CIV_1

By Value of Digital Transaction

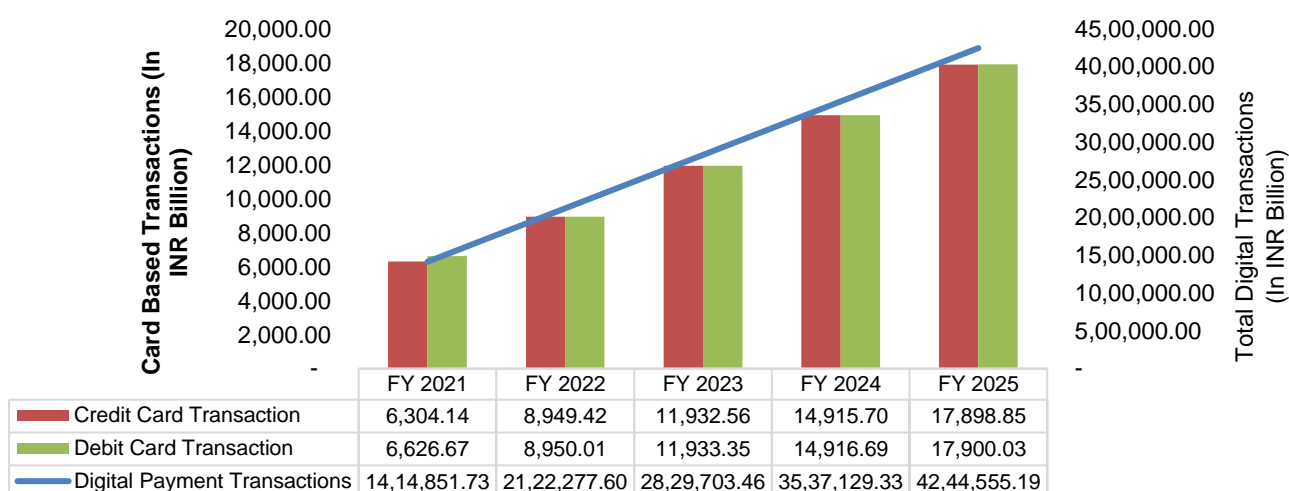
Figure 64: Historic Data, All Digital Payments, By Credit and Debit FY 2019-FY 2021 (Value of Transactions)¹²⁸



Note: Historic Data for Value of Digital Transaction (In Trillion). Source: RBI

Forecast of Digital Transactions and Cards (By Value of Transactions)

Figure 65: Historic Data, All Digital Payments, By Credit and Debit FY 2021-FY 2025 (Value of Transactions in INR Billion)



Source: Frost & Sullivan Estimates

Observations:

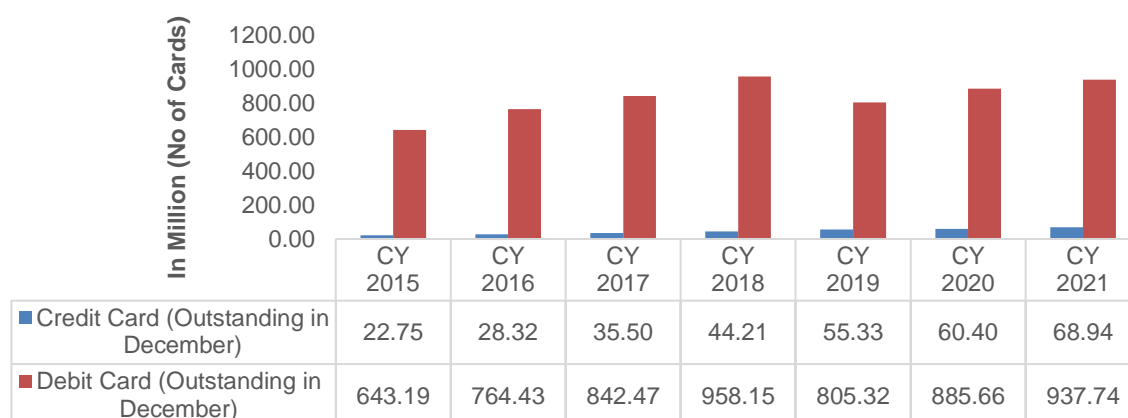
- The debit card transactions are expected to increase from INR 6 Billion to INR18 Billion at a CAGR of around 21%
- The credit card transactions are expected to increase at a CAGR of around 23%
- The digital transactions are expected to increase at a CAGR of around 25%
- The overall market penetration towards digital transactions-based model is anticipated to move upward.

¹²⁸ https://rbi.org.in/scripts/AnnualReportPublications.aspx?Id=1322#CIV_1

Card Market Size CY 2015-CY 2021

The digital economy in India spurred during the pandemic owing to an increase in the requirement for contactless payments. The market for plastic money also experienced a shift in dynamics due to the radical shift in the financial economy. The change in trends between the years CY 2015- CY 2021 has been shown in the Figure below.

Figure 66: Outstanding Debit and Credit Cards CY 2015- CY 2021



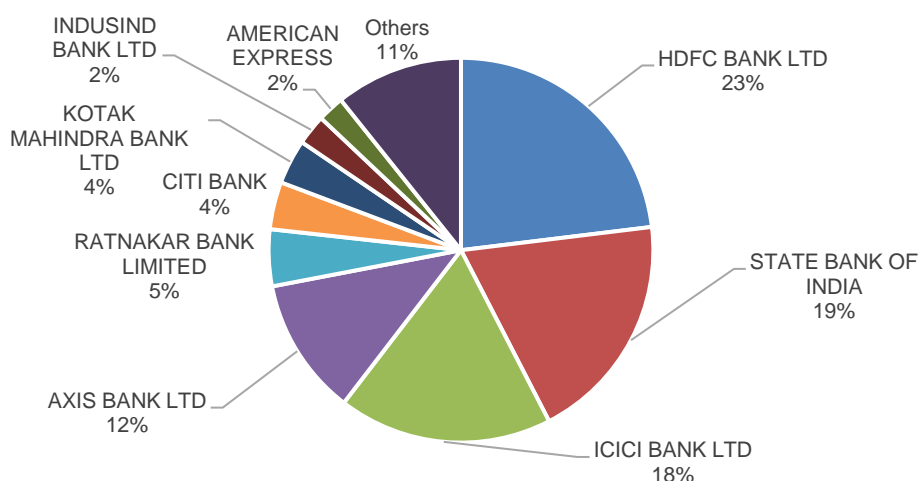
Source: RBI

The credit card market grew at around 20% and debit card market grew at around 6.5% CAGR between the years (CY) 2015 to 2021.

Market Share of Credit Card and Debit Card Market

Credit Card Market Share CY 2021

Figure 67: Market Share, Credit Card, CY 2021 ¹²⁹



Other Include: Standard Chartered Bank Ltd, Yes Bank Ltd, Canara Bank, Hongkong And Shanghai Bkg Corpn, Bank Of Baroda, Union Bank Of India, Idfc Bank Limited, Punjab National Bank, Sbm Bank India, Bank Of India, Indian Bank, Jammu And Kashmir Bank, Bank Of Maharashtra, Indian Overseas Bank, Idbi Ltd, Tamilnad Mercantile Bank Ltd, Federal Bank Ltd, Bank Of America, Dhanalakshmi Bank Ltd, Dcb Bank Ltd, South Indian Bank, Karur Vysya Bank Ltd, City Union Bank

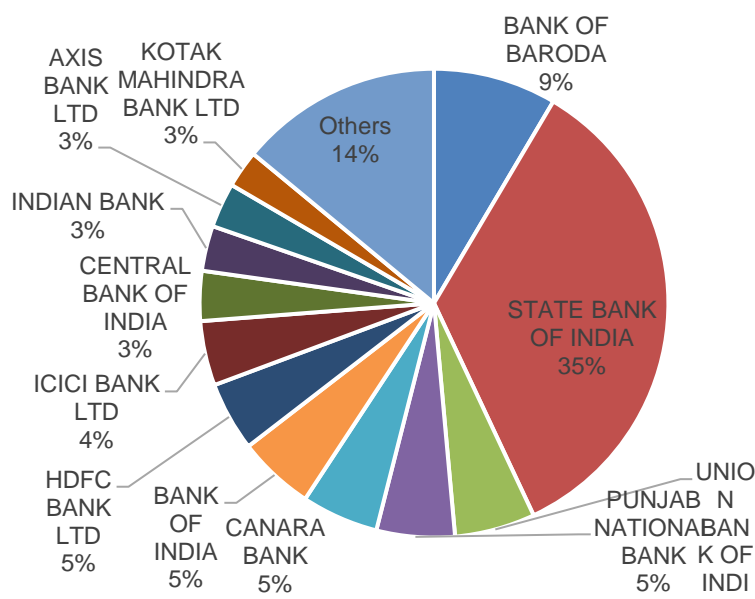
¹²⁹ <https://rbi.org.in/Scripts/ATMView.aspx>

Observations

- There were around 22 Million credit card users in 2015 and this increased to around 68.94 Million in 2021.
- HDFC Bank has the largest market share with a value of 23% in CY 2021.
- State Bank of India acquired the second largest market share with a value of 19%.

Debit Card Market Share CY 2022

Figure 68: Market Share Debit Card, CY 2021 ¹³⁰



Others include: Indian Overseas Bank, Idbi Ltd, Bank Of Maharashtra, Uco Bank, Federal Bank Ltd, Indusind Bank Ltd, Karnataka Bank Ltd, Bandhan Bank Ltd, Karur Vysya Bank Ltd, Jammu And Kashmir Bank, Yes Bank Ltd, South Indian Bank, Punjab And Sind Bank, Idfc Bank Limited, City Union Bank, Tamilnad Mercantile Bank Ltd, Citi Bank, The Laxmi Vilas Bank Ltd, Ratnakar Bank Limited, Standard Chartered Bank Ltd, Dbs Bank, Dcb Bank Ltd, Catholic Syrian Bank Ltd, Dhanalakshmi Bank Ltd, Hongkong And Shanghai Bkg Corpn, Deutsche Bank Ltd, Sbm Bank India, Barclays Bank Plc

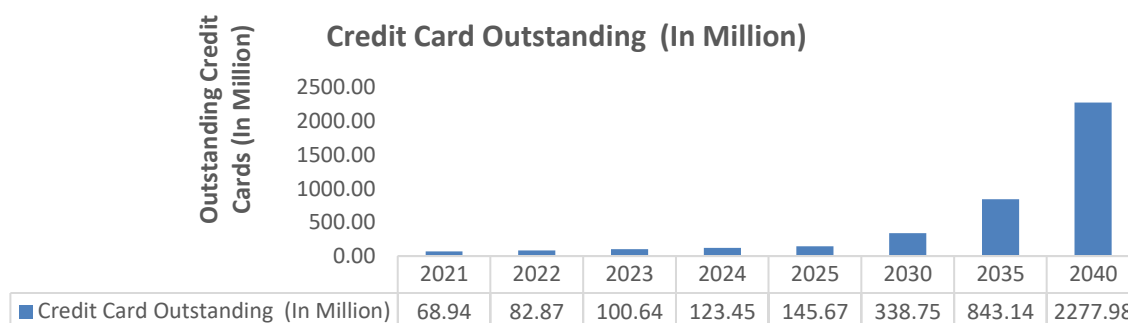
Observations

- The total number of debit card issued during 2020 was around 885 Million which is a slight decrease from 2019, which was around 805 Million. 2018 witnessed the highest debit card issued, it accounted to around 958 Million. In 2021, the number of debit cards issued was 937 Million.
- State Bank of India accounted to around 35% of the overall debit card market.

¹³⁰ <https://rbi.org.in/Scripts/ATMView.aspx>

Credit Card Market Forecast 2021-2040

Figure 69: Forecast for Credit Card Users Growth: CY 2021- CY 2040

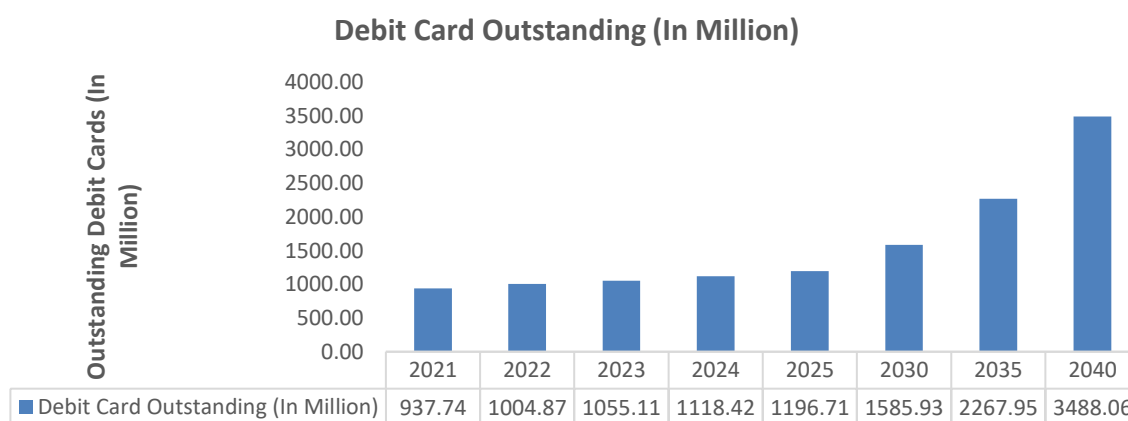


Note: Forecast Data for Outstanding Number of Credit Cards. All the years are in Calendar Year (Jan-Dec). Source: Frost & Sullivan Estimates

- The CAGR for growth in credit cards issued between the years 2021-2040 is expected to be at around 20%. The key inputs for the modelling includes Demographics, Employment, Historical Growth, Rate of Digital penetration, GDP and increased PPP.
- The number of credit cards issued is anticipated to reach 2.27 Billion by 2040. From card networks and card issuer's perspective, providing Customers access to the value-added services, including lounges, is increasingly becoming a key aspect of their credit / debit card service offering for customer engagement and customer loyalty.

Debit Card Market Forecast 2021-2040

Figure 70: Forecast for Debit Card Users Growth: 2021-2040



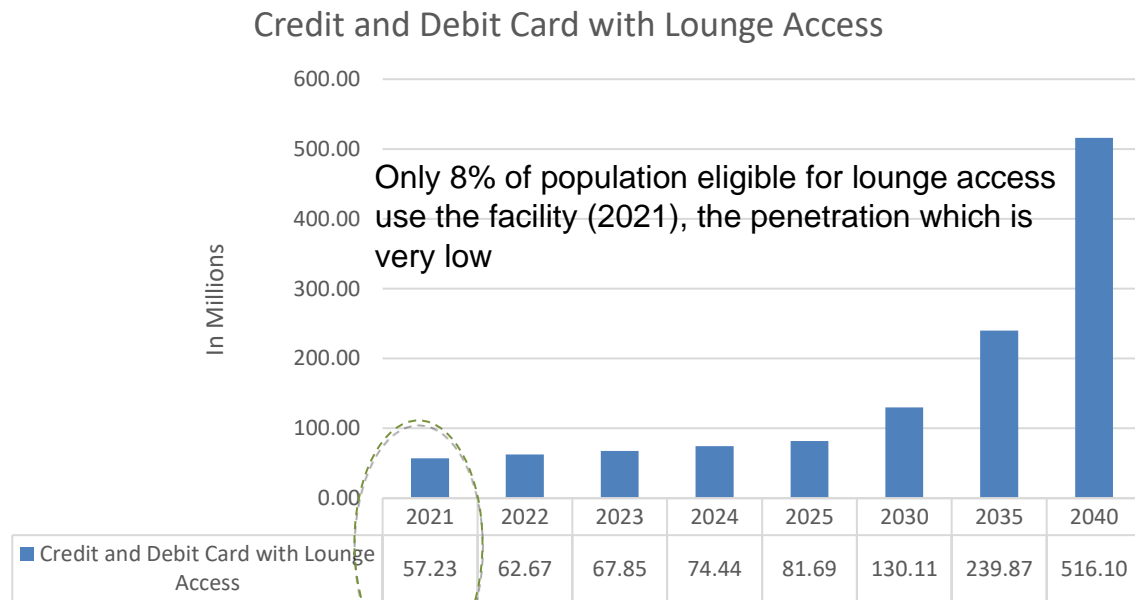
Note: Forecast Data for Outstanding Debit Cards Issued. All the years are in Calendar Year (Jan-Dec). Source: Frost & Sullivan Estimates

- According to market projections, the CAGR for debit cards issued registered a value of 7% between CY 2021-2040. The key inputs for the Demographics, Employment, Historical Growth, Rate of Digital penetration, GDP and increased PPP.
- The number of debit cards issued is expected to reach 3 Billion by the year 2040.

Number of Cards with Lounge Access

All credit and debit cards do not have the lounge access facility, the total number of credit and debit card which are estimated to have the lounge access feature are shown in the figure below.

Figure 71: Credit and Debit Cards with Lounge Access CY 2021- CY 2040 (Volume in Millions)¹³¹



Note: Growth in Lounge Access Credit and Cards | Source: Frost & Sullivan

The credit and debit cards with lounge access in India was 57.23 Million (CY 2021).

The total domestic and international lounge access is estimated at around 7.5 Million passengers per annum (Pre COVID) FY 2020, using all method of access.

The credit card and debit card-based lounge access feature card holders is expected to grow from 57.23 Million in 2021 to 516.10 Million in 2040.

¹³¹ <https://rbi.org.in/Scripts/ATMView.aspx>

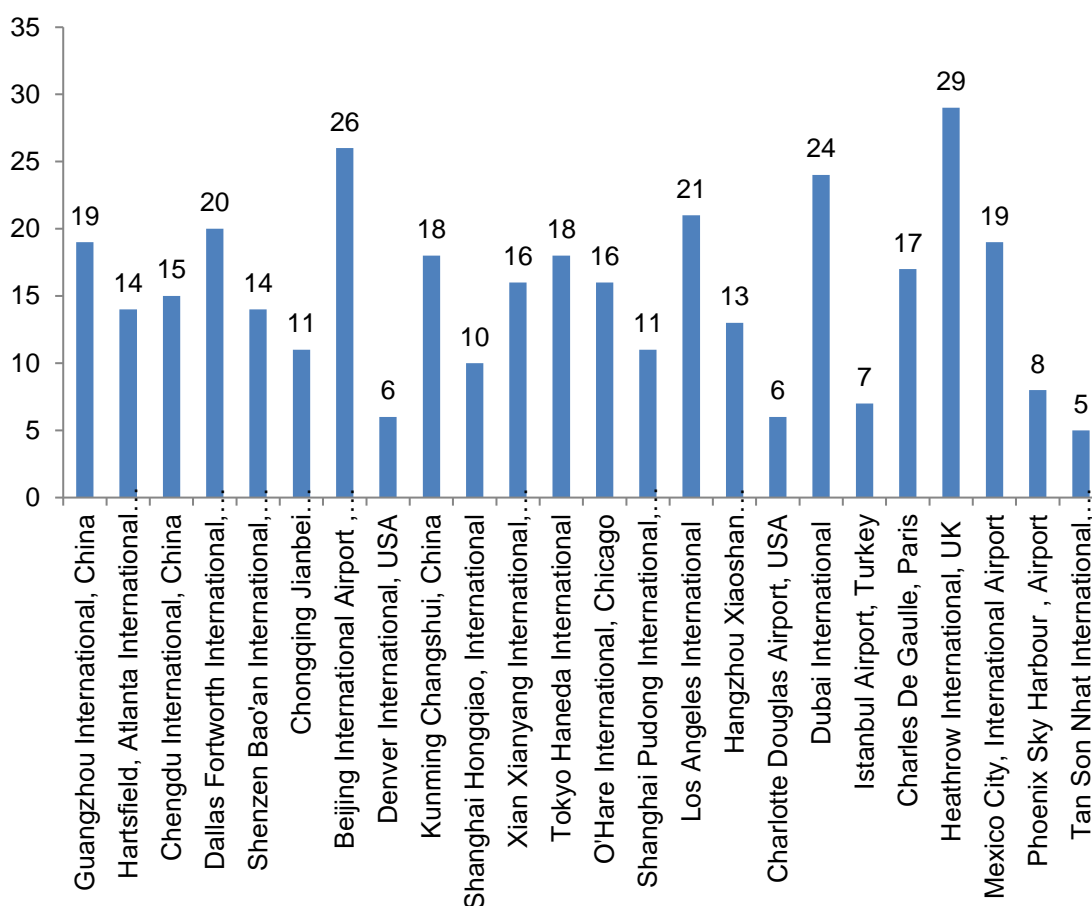
GLOBAL AND INDIAN LOUNGE MARKET OVERVIEW

The airport lounges have grown steadily in India over the past 5 years. The growth was being driven by the metro cities until about 2-3 years ago, however in the past 2 years the lounges have been expanding in non- metro airports as well. Any airport with a passenger movement of around 5-6 Million a year can accommodate a successful lounge. The number of lounges in an airport is proportional to the passenger numbers; the top 24 Global Airports average at around 7 lounges per airport. The Indian Airports average at around 2 lounges per airport. The Indian lounge market is expected to grow at 4X times of the current market size and is expected to reach 204 lounges by 2040.

Total Number of Global Lounges VS Indian Lounges top 24 Airports

Global Lounges (Top 25 Airports)

Figure 72: Busiest Airports Globally, Number of Lounges in Each Airport, 2022¹³²



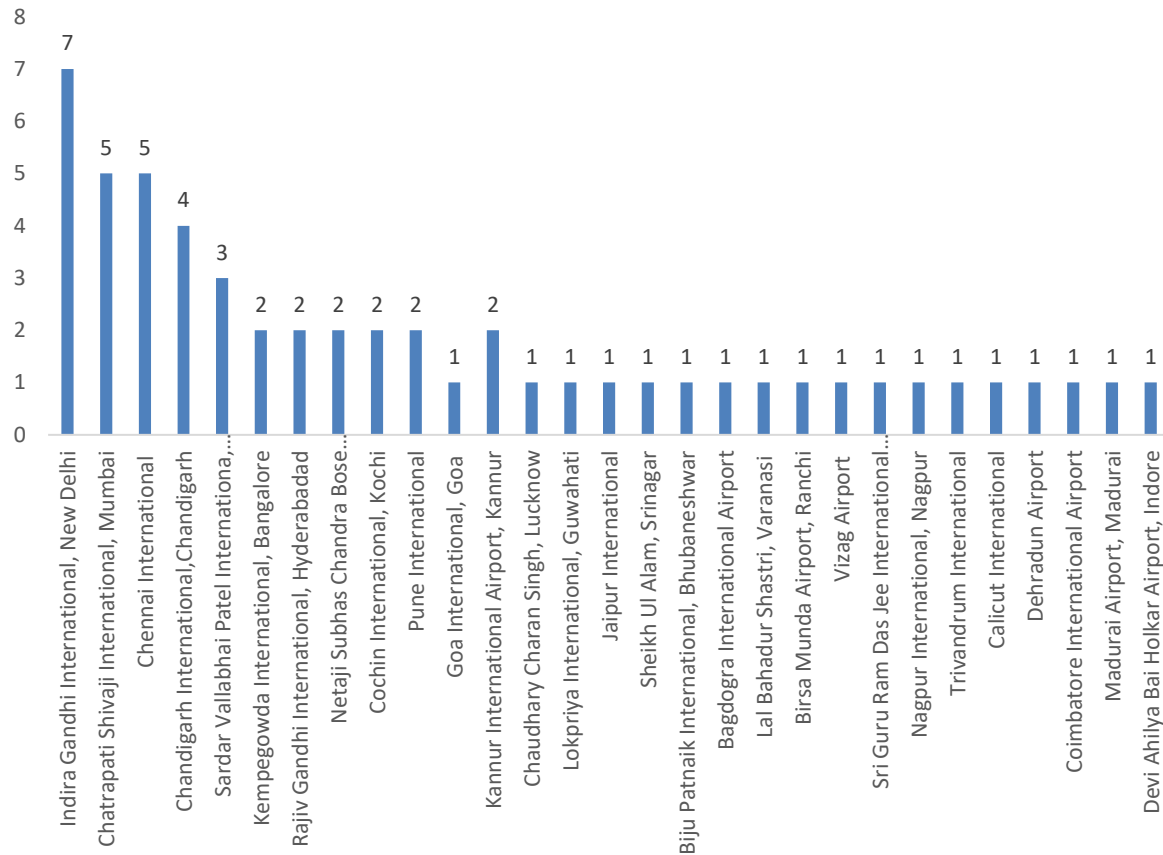
Note: Busiest Airports Globally and the Number of Lounges in each Airport (Aggregator Access Lounges, Airline Lounges are not considered). The above list will show 24, Delhi airport is amongst the top 25 which has been excluded from the above list, it will result in double counting. Source: Frost & Sullivan

¹³² <https://www.prioritypass.com/en/airport-lounges>, <https://en.dragonpass.com.cn/airports>
<https://www.tavpassport.com/en/>
<https://www.plazapremiumlounge.com>
<https://www.lounge.me/>

- Heathrow International, UK is seen to have the largest number of lounges across the global market with a value of 29, followed by Dubai International (24 airport lounges).
- Beijing International (26 airport lounges) in China is seen to have the largest number of airport lounges followed by Guangzhou International (19 lounges).
- On an average, top 25 international airports have roughly 7 lounges per airport.

Total Number of Indian Airport Lounges

Figure 73: Number of Lounges in Indian Airport, FY 2022¹³³



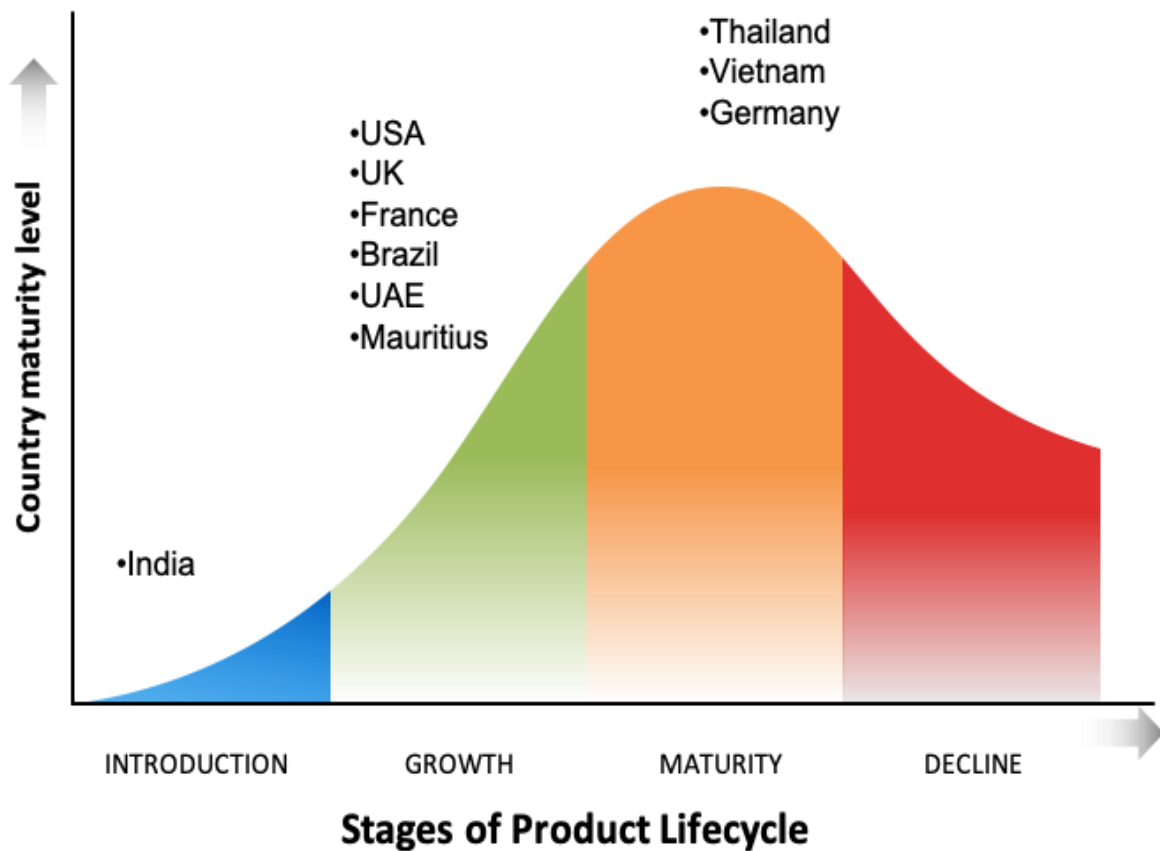
Note: India and the Total Number of Lounges at each airport (Aggregator Access Lounges, Airline Lounges are not considered) Source: Frost & Sullivan

- Indira Gandhi International Airport (7 airport lounges) has the highest number of lounges followed by Chhatrapati Shivaji International in Mumbai (5 lounges).
- Chennai International Airport has also 5 lounges and holds the third place in terms of most number of lounges amongst Indian airports.
- On an average, top 25 airports in India have only 2 lounges per airport.

¹³³ <https://airport.mastercard.com/en/lounge-finder/country?countrycode=IND>
<https://www.dreamfolks.in/lounge>
<http://indiaairport.com/lounges/index.htm>
<https://www.prioritypass.com/en/lounges/india>
<https://www.loungebuddy.com>

Airport Lounge Product Lifecycle Stage – Key Countries

Figure 74: Product Life Cycle, India Benchmarked to Global Markets¹³⁴



Note: Product Life Cycle (PLC) for Growth in Airport Lounges Market in India. The PLC Ratio is calculated based on economic modelling. Source: Frost & Sullivan Estimates

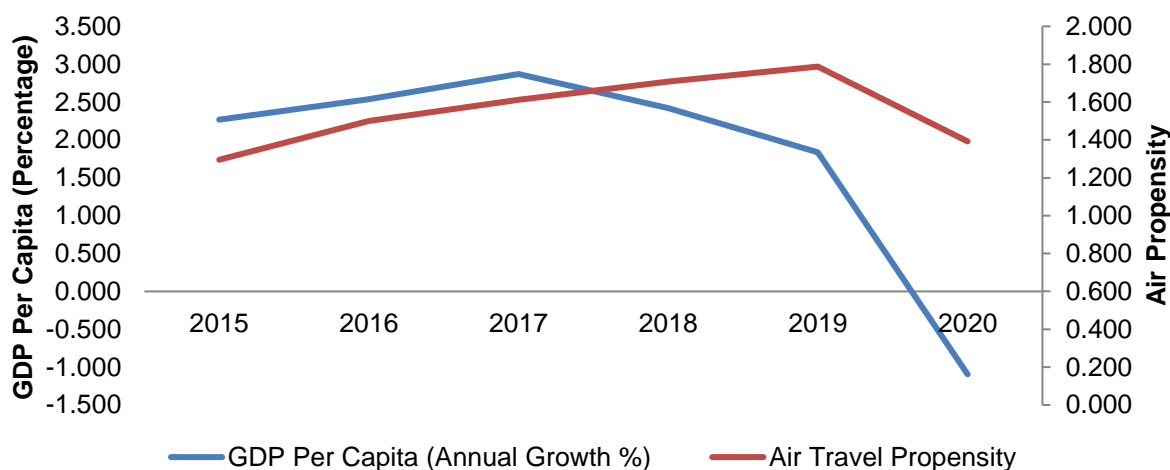
- In terms of global standards, India is seen to be towards the introductory stage of the product life cycle.
- Markets like the US, UK, France, Brazil, UAE, and Mauritius are in the growth stage of the product life cycle owing to the economic status and high passenger traffic in these nations.
- US and UK have the highest passenger volume amongst nations in the Growth stage of the product life cycle with a value of 926 million and 143 million respectively.
- Markets including Thailand, Vietnam, and Germany are in the Mature stage of the product life cycle.
- The economic modelling has been based on selected countries across the region, the potential markets for DreamFolks in Asia are Thailand and Vietnam. Similarly, UAE is a potential market for DreamFolks in the Middle East region. Mauritius is a potential market for DreamFolks in the African continent.

¹³⁴ https://data.worldbank.org/indicator/IS.AIR.PSGR?most_recent_value_desc=true
<https://www.worldometers.info/world-population/population-by-country/>
<https://www.cia.gov/the-world-factbook/field/labor-force/country-comparison>

Similarities of Indian Lounge Market and International markets

South Korea

Figure 75: South Korea, GDP Per Capita Versus Air Travel Propensity, CY 2015-CY 2020



Note: Relationship between Change in GDP Per Capita and Air Travel Propensity for South Korea. Source – World Bank

The South Korean aviation market has almost doubled in the past decade, this growth can be attributed to the Low Cost Carriers in the country. The passenger traffic was around 50-60 million in 2008 and it surpassed 100 million in 2018. The domestic traffic accounts to around 30% of the air travel. Jeju airport accounts to 87% of the domestic traffic. The international traffic has also tripled over the past decade.

Tourism is a key driver to the South Korean air traffic, it attracted more than 15 million travelers in 2018 out of which 31% accounted to Chinese visitors, followed by Japan and Taiwan. Korea has 6 LCCs, which carry around 40% of the air travel passengers.

The pandemic promoted consolidation within the South Korean Aviation sector. In, November 2020, Korean Air announced its intent to purchase 63.9% of stake in Asiana Airlines for around USD 1.6 Billion. ¹³⁵

Korean air expects to be a top contender in the Low-Cost Carrier (LCC) segment within Asia. LCC acts as an indirect driver to the lounge market, due to its focus in key core operational aspects. Hence, this venture is expected to boost the airport lounge operators market in terms of expansion opportunities.

In March 2021, Korean Air Lines Co Ltd stated that it would take two years after the purchase to integrate Asiana. Three low-cost arms within the nations are expected to be

¹³⁵ <https://www.iba.aero/insight/will-covid-19-force-south-korea-oversaturated-aviation-market-to-consolidate-may-2020/>

combined into one via this deal. ¹³⁶ The consolidation airline would be ranked 16th on a global basis.

South Korean economy is strong, as of 2020 there were around 140 Million credit cards, in 2019 there were around 111 Million credit cards. This is much more than the Indian outstanding credit cards.

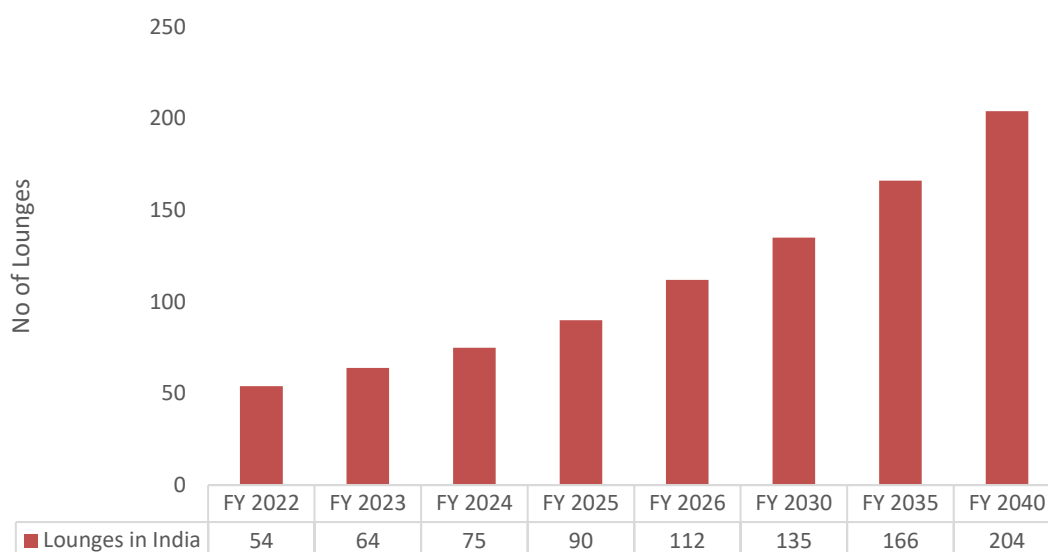
The combination of credit card users, increase in air travel and Low-Cost Carriers are a good directional inputs for a potential lounge business in the country. Lounge aggregators should consider entering South Korean market.

The above case study holds good in case of Indian Aviation scenario due to its similarities in terms of Growing number of LCCs, Credit Card penetration and increase in GDP.

¹³⁶ <https://www.reuters.com/article/us-korean-air-strategy-idUSKBN2BN0BT>

Projection for No of Lounges in India

Figure 76: Total Airport Lounges in India, FY 2022-2040

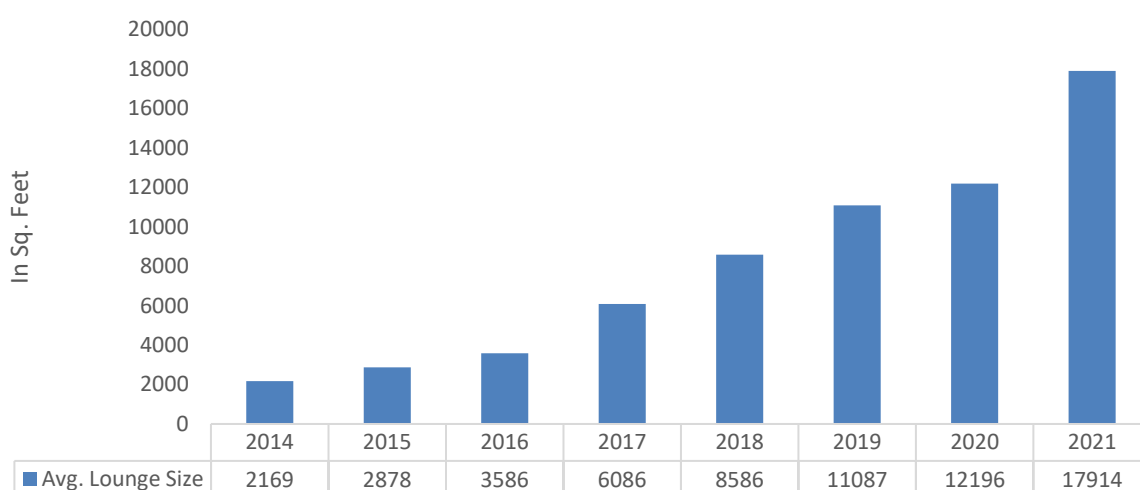


Source: Frost & Sullivan Estimate | Moderate Assumption that no new lounges would be opened between the period July-Dec 2022

- The no of lounges is expected to grow at an 7% CAGR between the period 2022-2040.
- As of March 2022, the number of airport lounges in India was 54, and this is expected to grow to around 204 lounges by 2040.
- An increase in passenger traffic and growth in demand within the air travel industry is expected to boost the market growth.
- The introduction of projects like UDAN and the ongoing construction for 100 greenfield airports in India¹³⁷ (construction to be completed in 10-15 years) is expected to increase the potential opportunity for airport lounge operators within this market.
- Increased privatization of airlines is also expected to increase the investment for airline-based lounges. The growth in the lounge operators' market is anticipated to increase opportunities for the lounge aggregators market as well.
- Tier II airports are expected to drive the growth of new lounges. This is due to the lower rates and increase in traffic from these airports.

¹³⁷ <https://economictimes.indiatimes.com/industry/transportation/airlines/-/aviation/india-to-construct-100-airports-worth-60-billion/articleshow/65667498.cms?from=mdr>

Figure 77: Increase in average lounge size, FY 2014- FY 2021



Note: Based on sample size of 10%-15% of the lounge market

The average airport lounge size was around 2100 sq. feet in 2014, this increased more than 8X and reached around 17,900 sq. feet in 2021. The future lounges are expected to be more premium than accommodating more passengers. The penetration of lounges per airport in India is still very low compared to the global average and there is still headroom to grow the average airport lounge size per airport. In case of Greenfield airports the availability of space for lounge operations is easier. The increase in lounge space proves that there is a large headroom for growth.

Key Airports in India and Lounge Profiling for Each Airport (Metro and Non-Metro)

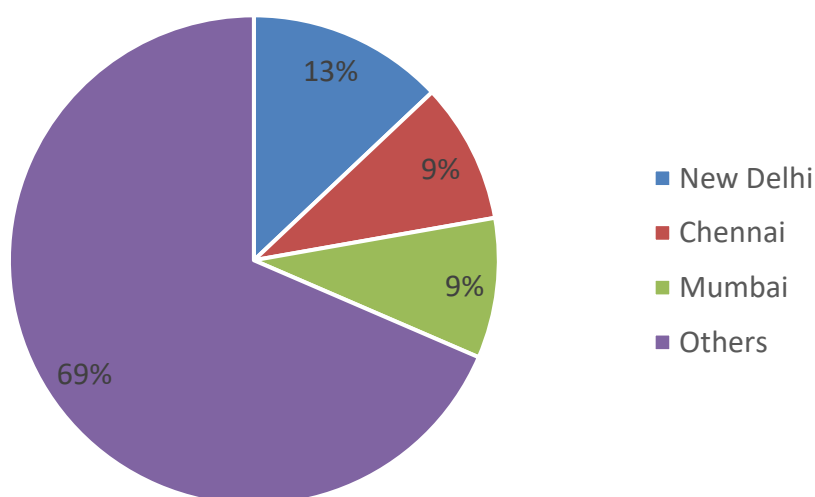
Table 10: Key Airport Lounges and their operators in India

S. No	State	City	Lounge Name	Operators	Terminal
1	Gujarat	Ahmedabad	The Lounge	Lite Bite Foods	Domestic
2	Gujarat	Ahmedabad	The Lounge	Anjali Hotels (CAFS)	Domestic
3	Gujarat	Ahmedabad	The Lounge	Anjali Hotels (CAFS)	International
4	Punjab	Amritsar	Primus Lounge	Saptagiri Restaurants	Domestic
5	Karnataka	Bangalore	BLR International Lounge	Travel Food Services	International
6	Karnataka	Bangalore	BLR Domestic Lounge	Travel Food Services	Domestic
7	Odisha	Bhubaneshwar	Bird Lounge	Bird Group	Domestic
8	Kerala	Calicut	Bird Lounge	Bird Group	International
9	Punjab	Chandigarh	Plaza Premium Lounge	Premium Port Lounge	Domestic
10	Punjab	Chandigarh	Plaza Premium Lounge	Premium Port Lounge	International
11	Punjab	Chandigarh	The Cram Bar	Saptagiri Restaurants	Domestic
12	Punjab	Chandigarh	The Cram Bar	Saptagiri Restaurants	International

13	Tamil Nadu	Chennai	Travel Club Lounge A	Travel Food Services	Domestic
14	Tamil Nadu	Chennai	Travel Club Lounge B	Travel Food Services	Domestic
15	Tamil Nadu	Chennai	Travel Club Lounge	Travel Food Services	International
16	Tamil Nadu	Chennai	Travel Club Lounge Extn	Travel Food Services	International
17	Tamil Nadu	Chennai	Travel Club Lounge	Travel Food Services	International
18	Tamil Nadu	Coimbatore	BlackBerry Lounge	Balaji Caterers	Domestic
19	Uttarakhand	Dehradun	Bird Lounge	Bird Group	Domestic
20	Goa	Goa	Good Times Lounge And Bar	Travel Food Services	Domestic
21	Assam	Guwahati	Primus Lounge	Saptagiri Restaurants	Domestic
22	Telangana	Hyderabad	Plaza Premium Lounge	Premium Port Lounge	Domestic
23	Telangana	Hyderabad	Plaza Premium Lounge	Premium Port Lounge	International
24	Madhya Pradesh	Indore	Primus Lounge	Saptagiri Restaurants	Domestic
25	Rajasthan	Jaipur	Primus Lounge	Saptagiri Restaurants	Domestic
26	Kerala	Kannur	Pearl Lounge	NAS	Domestic
27	Kerala	Kannur	Pearl Lounge	NAS	International
28	Kerala	Kochi	Earth Lounge	Anjali Hotels (CAFS)	Domestic
29	Kerala	Kochi	Earth Lounge	Anjali Hotels (CAFS)	International
30	West Bengal	Kolkata	Travel Club Lounge	Travel Food Services	Domestic
31	West Bengal	Kolkata	Travel Club Lounge	Travel Food Services	International
32	Uttar Pradesh	Lucknow	The Lounge	Devyani International	Domestic
33	Tamil Nadu	Madurai	Primus Lounge	Saptagiri Restaurants	Domestic
34	Maharashtra	Mumbai	Travel Club Lounge T1C	Travel Food Services	Domestic
35	Maharashtra	Mumbai	Travel Club Lounge (MALS)	Travel Food Services	Domestic
36	Maharashtra	Mumbai	Loyalty Lounge	Oberoi Flight Catering	International
37	Maharashtra	Mumbai	Oasis Lounge T1B	Lite Bite Foods	Domestic
38	Maharashtra	Mumbai	Aviserv Lounge	Aviserv	International
39	Maharashtra	Nagpur	Mandarin Lounge	Airport Restaurant	Domestic
40	Delhi	New Delhi	Plaza Premium Lounge	Premium Port Lounge	Domestic
41	Delhi	New Delhi	Plaza Premium Lounge	Premium Port Lounge	Domestic
42	Delhi	New Delhi	Plaza Premium Lounge A	Premium Port Lounge	International

43	Delhi	New Delhi	Plaza Premium Lounge B	Premium Port Lounge	International
44	Delhi	New Delhi	Plaza Premium Lounge T3 INT Arrival	Premium Port Lounge	International
45	Delhi	New Delhi	Plaza Premium Domestic T3 DOM Arrival	Premium Port Lounge	Domestic
46	Delhi	New Delhi	Encalm Lounge	Encalm Hospitality Pvt Ltd	Domestic
47	Maharashtra	Pune	Earth Lounge	Anjali Hotels (CAFS)	Domestic
48	Maharashtra	Pune	Bird Lounge	Bird Group	Domestic
49	Jharkhand	Ranchi	Food Hangar	Hotel Pradeep	Domestic
50	J&K	Srinagar	Paahun The Executive Lounge	RBA HOSPITALITY	Domestic
	Kerala	Trivandrum	Bird Lounge	Bird Group	International
52	Gujrat	Vadodara	Premium Lounge	Saptagiri Restaurants	Domestic
53	Uttar Pradesh	Varanasi	Take Off Bar	Hotel Pradeep	Domestic
54	Andhra Pradesh	Vijayawada	Amaravathi Lounge	AMARAVATHI Aathidyam (Amaravathi Aromas)	Domestic

Figure 78: India, Key Airport Lounge operators in Indian Airports (In Percent), FY 2022

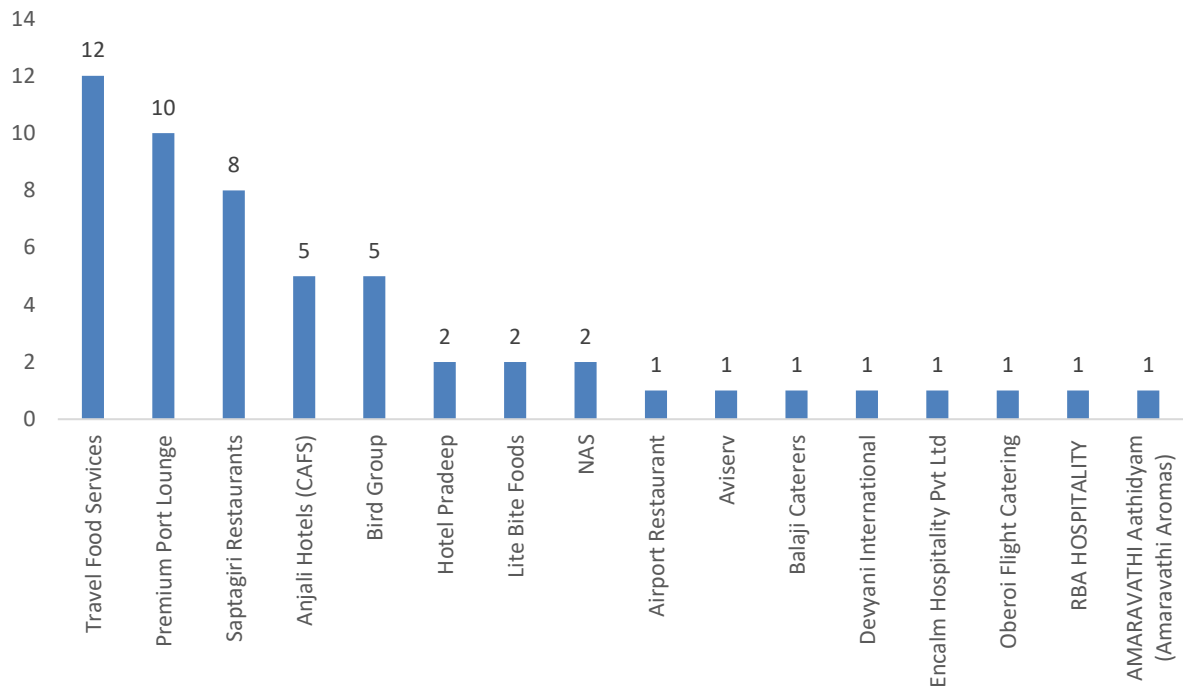


Source: Frost & Sullivan Estimate

The three key metro airports namely, New Delhi, Chennai and Mumbai account to around 31% of the lounges in India in 2021. The key operators are discussed in the next section. DreamFolks has access to all the 54 lounges in India (data as of March 31st, 2022).

Key Lounge Operators in India

Figure 79: India, Key Airport Lounge Operators in India, FY 2022

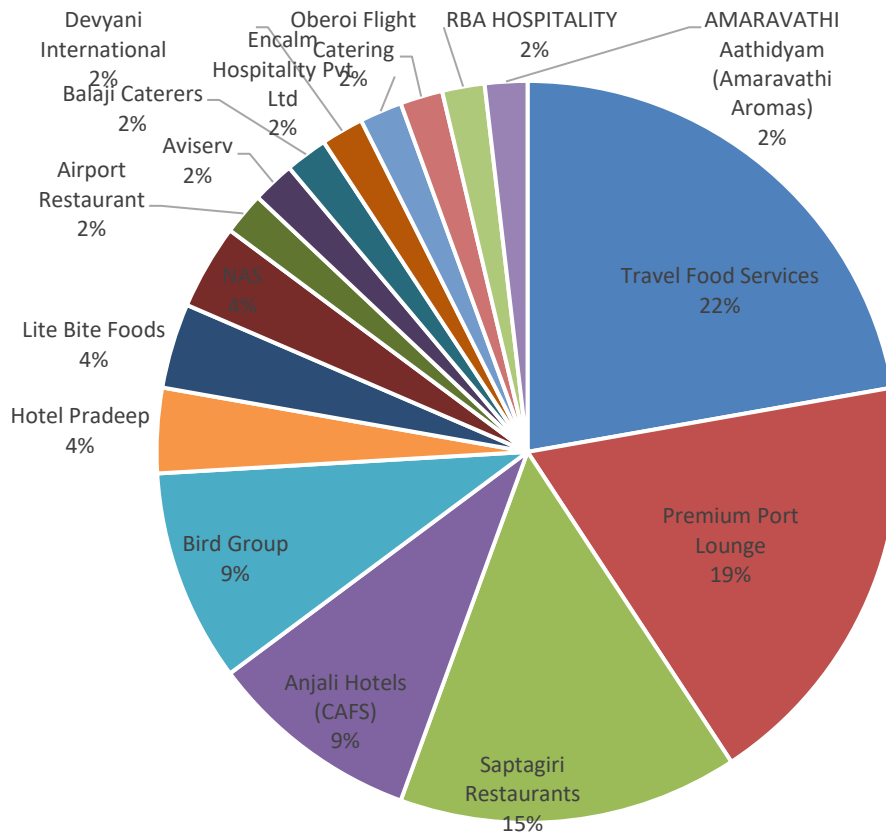


Note: Lounge Operators Market in India, Y Axis represents the number of lounges (Data for 54 lounges has been recorded | as on 31st March 2022)

The airport lounge market in India has numerous players. As of FY 2022 the number of airport lounges in India were 54 and Travel Food Services operates 12 lounges.

Number of Lounges per Operator

Figure 80: India, Market share of the lounge operators, FY 2022

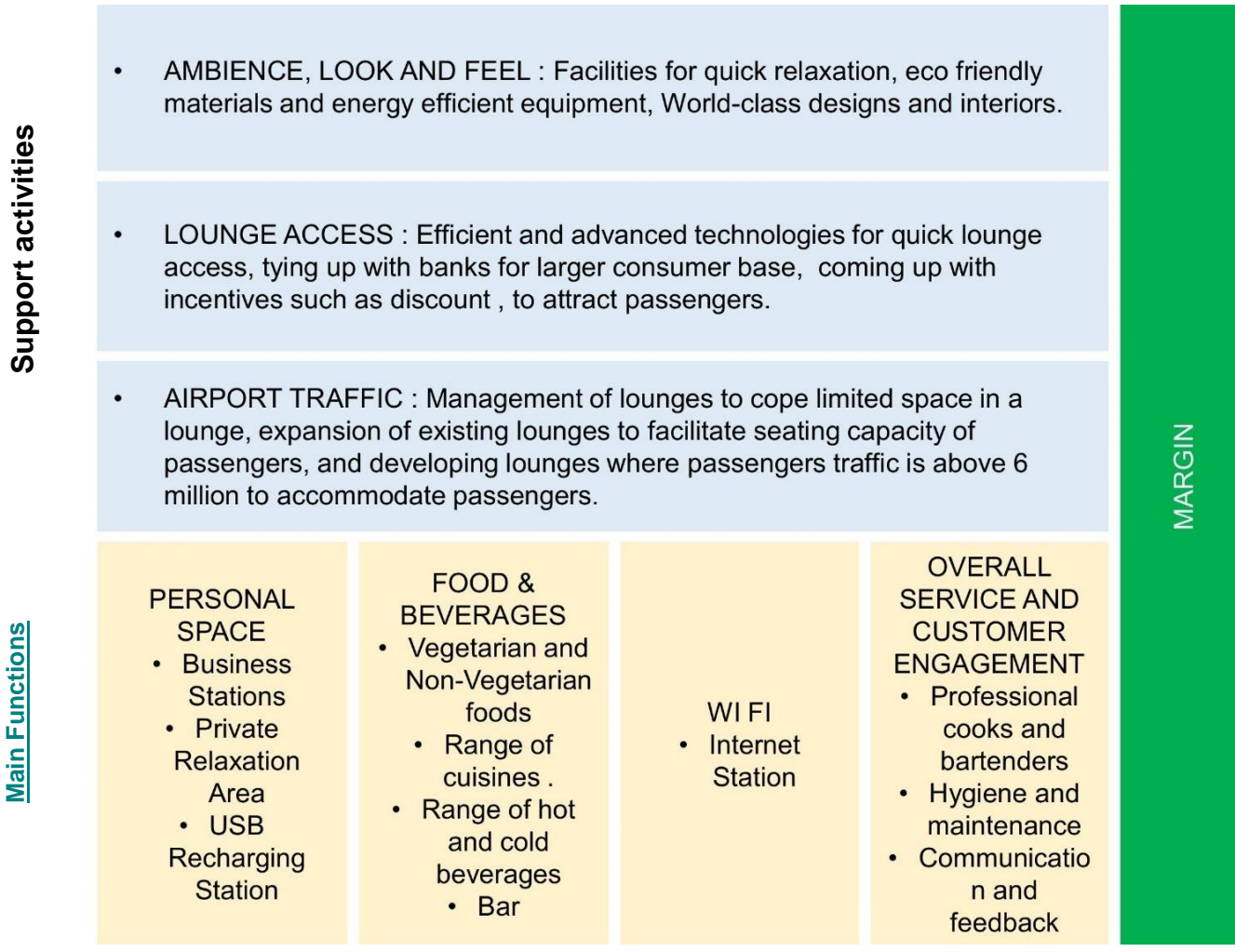


Source: Frost & Sullivan Estimates | FY 2022

The share of lounge providers in India shows that Travel Food Services have the highest market share of 22%, followed by Premium Port Lounges with 19% of the domestic market share.

DreamFolks has tie up all lounge operators including the market leaders viz. Premium Plaza Lounge and Travel Club Lounge. The lounges work in close coordination with DreamFolks as it provides more than 80% of the overall traffic for most lounges, and also reduces the need for lounges to tie up with multiple bank / other partners. DreamFolks cover 100% of lounges being operated in India, while it has significant exclusivity for India issued credit and debit card programs in key locations.

Figure 81: Value chain for Airport Lounge Service Providers



LOUNGE MARKET DYNAMICS AND ACCESS METHODS TO AIRPORT LOUNGES

Airport Lounge Market in India

The key drivers, and restraints that are expected to impact the Airport Lounges Market in India are enumerated in succeeding paragraphs. Frost & Sullivan considered all these factors for forecasting the future market growth.

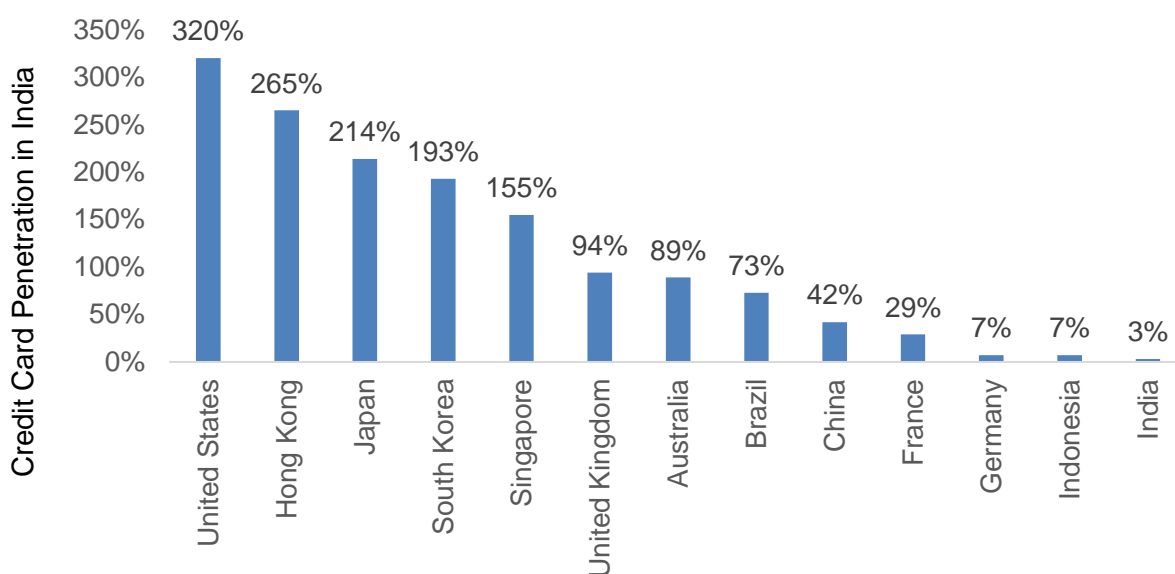
Drivers

- **Growing Air Traffic and Passenger Traffic:** Passenger traffic has been growing steadily since the new millennium, driven largely by income growth and low-cost aviation. The domestic air travel increased from 80.75 million in CY 2015 to 143.74 million in CY 2019. It is projected that India will overtake the UK to become the third-largest air passenger market in 2024. Furthermore, India is one of the world's fastest-growing domestic aviation markets.¹³⁸ The international passengers have also grown from around 18.42 Million in CY 2015 to around 14.29 Million in CY 2019. Hence, with growing air and passenger traffic, lounge market would flourish.
- **Development of New Airports:** India will require 2,380 new commercial aircraft by 2040 because of an increase in air travel. A total of 200 new airports will open in India by 2024. It is estimated that India will have 295 airports by 2040, and the increase in airports will drive the lounge market. Additionally, Tier 2 and Tier 3 are likely to have a lower penetration of services. Which is likely to drive the lounge markets especially for providers who offer value for money.
- **Government Initiatives:** The government of India has launched many schemes to make flying affordable for people of all income levels. Under UDAN 4.0, 24 routes were identified in Assam in February 2021. During the UDAN 4.1 bidding process, the Ministry of Civil Aviation (MoCA) has proposed 392 routes as part of the Azadi Ka Amrit Mahotsav launch by the Government of India in March 2021.¹³⁹ The UDAN scheme and the privatization of the airports are expected to be the key government initiatives which could contribute to this market.
- **Increasing Uptake of Digital Economy:** The current credit card penetration is extremely low in India, it is around 3% for credit cards as shown in the figure below. The penetration of digital economy and cards is expected to increase exponentially due the effect of pandemic, large customer base, rising income, and changing attitude of the end customer. In turn, the financial system will have a greater incentive to manage customer loyalty; programs like lounge access will form a significant part of the loyalty management initiative.

¹³⁸ <https://airlinergs.com/issue-article/the-rise-and-growth-of-airport-lounges/>

¹³⁹ <https://www.aai.aero/en/rcsudana>

Figure 82: Penetration of Credit Card in India (Average no. of Credit card per 100 people) ¹⁴⁰



Source: SBI Cards Prospectus

- LCC Market Share in India:** The Low-cost Carriers have a significant market share in India, and this is expected to continue in the foreseeable future. The LCC carriers need to keep the upcoming competition from full-service carriers like Vistara and Air India (taken over by Tata). To manage customer loyalty, offering lounge access as an add-on will be a good option for these airlines.
- Business Travel, Tourism, and Customer Experience** – India has been seeing a steady increase in business index and tourism. Both factors will play a major part in driving the lounge market especially when the Indian airports rank much lower than the global airports in overall customer experience. Lounges will be key beneficiary as they offer an enhanced customer experience. will be one of the key features Involvement of banks
- Addition of Lounges:** On an average it can be stated that the top 25 airports in India account to 2 lounges per airport. This is much lesser than the Global average which is 7 airports per top 25 Global airports. The number of airport lounges in India is very small. Currently, there are approximately 54 lounges in India (31st March 2022), and the overall number of lounges will increase in line with increasing traffic and passengers. It is important to note that the overall growth in lounge also includes the growth in lounge area in the existing lounges which are not included in the 150 new lounges which are expected to be added in between the years 2023-2040. The total number of lounges are expected to be 204 by 2040; these include the additional lounges across existing airports and new lounges across Greenfield airports.

140

https://www.axiscapital.co.in/uploads/equity_documents/20200220105049_sbi_cards_and_payment_services_limited__rhp.pdf

Restraints

- **High rentals** - High rental has always posed a challenge for lounge providers. Recently, airport hospitality providers have asked airport operators to reduce the high rental prices they pay for using their facilities. The lounge operators at some airports pay a minimum guaranteed amount. These operators have asked to reconsider the amount.¹⁴¹ Plaza Premium Group and Bird Group and Travel Food Services (TFS) are the two major lounge operators in the country, and together they operate about two dozen lounges across airports.

Customer Access Methods to the lounges

The customers can access Airport Lounge through the following methods:

- Credit Card/ Debit Card
- Airline Business Class / Airline Frequent Flyer Programs
- Lounge Membership Cards, Digital Access, and QR Codes
- Other Voucher, Digital Apps and QR codes
- Walk-In

Credit Card/ Debit Card

Credit card and debit card-based lounge access to the customers can be of two types. Firstly, where the card offers a set of complimentary lounge visits (domestic and international) in a year. Secondly, wherein the debit or the credit card can allow access to the lounges, but the customer must pay for the same.

India issued Credit/ Debit cards are a primary mode of access the domestic lounges and it accounts to around 80%. This is the segment in which DreamFolks holds almost 95%-97% of the domestic India market lounge share.

Airline Business Class / Airline Frequent Flyer Programs

The access to lounges is offered as a part of the business and first-class tickets and the cost is borne by the airline. In smaller airports the lounges are shared by multiple airlines; however, in hub airports the lounges could also be specific to the airline. In case of Indian market, major market share is with low-cost airlines such as Indigo and Spice Jet. These airlines do not offer lounge access as part of the airfare, however in line with recent trends they offer lounge access an additional option. The Indian Aviation market will continue to be dominated by LCC, and steps taken by these airlines to provide lounge access as an additional option has significant growth potential. The rise of passengers travelling LCC, and airlines initiatives to retain customer loyalty in absence of services offered by Full Service Carrier are expected to drive future opportunities for companies like DreamFolks.

Lounge Membership Cards, Digital Access, and QR Codes

Lounge membership programs offer annual membership which gives its users access to multiple airport lounges across the world. These membership programs are offered complimentary by banks and can also be purchased directly by consumers with multiple pricing options. The programs which are most significant at the Global level are Priority

¹⁴¹ <https://economictimes.indiatimes.com/industry/transportation/airlines/-/aviation/airport-lounge-companies-want-relief-on-rentals/articleshow/74838849.cms?from=mdr>

Pass and Dragon Pass. DreamFolks offers a similar program which have been adopted by players like ICICI Bank and IDFC Bank to name a few.

Other Voucher, Digital Apps and QR Codes:

Customers can get access to lounges by also purchasing or getting complimentary along with flight ticket or travel bookings, at travel booking websites or airlines websites. In addition, corporates also issue vouchers as part of channel incentivization and employee engagement programs. In addition there are multiple applications which can be downloaded to get access to the lounges such as Lounge Buddy etc . The applications also allows the user to allow the user to understand the accessibility to the lounges. The customer can then pay online to gain access to the lounges. The cost of the access could vary from the time requirement, location etc.

Walk-In

These are the customers who have not subscribed to any of the above methods and access the lounge. The main factors driving this segment are value the lounge service provides versus the facilities available at the airport, and delayed flights. Currently, this segment is extremely low however it is expected to rise in the coming years especially in Tier 2 and Tier 3 airports where the airport services are likely to be rudimentary.

LOUNGE ACCESS AGGREGATORS MARKET IN INDIA

Key Lounge Access Aggregator Market Players In India (DreamFolks, Priority Pass (Collinson), Dragon Pass)

DreamFolks

The main business model of DreamFolks is to act as a service provider between the lounge operators on one side, and banks, card networks, airlines and corporates on the other end. DreamFolks acts as vital link for banks for their credit & debit card sales and customer engagement programs, and airlines to manage customer loyalty and retention.¹⁴² Main advantage of their business model is that the customer do not have to exclusively subscribe to memberships. Similarly, airlines which do not offer lounge access as part of the fare, can still manage customer loyalty by providing them access as an option. DreamFolks is a dominant player that has 100% lounge coverage in India with significant exclusivity for India issued credit and debit card programs in key locations.

DreamFolks also leverages technology and offers the solution through omni channels such as App based access, tracking live benefits on each card. The technology driven solutions of DreamFolks is one of the key elements that enables its clients to provide value added services to their end customers as a part of their customer engagement and loyalty management programs.¹⁴³

Additionally the company has diversified its portfolio overall airport experience by offering services as below :

- Meet and Assist,
- Nap Rooms
- Food and Beverages
- Airport Transfers
- Spa
- Door-step Baggage Services

Priority Pass

Priority Pass is a U.K-based company that was founded in 1992. The program is owned by Collinson Group. The program includes access to lounges for passenger across both, the economy class and premium class. There are three levels of membership available on the company's website: Standard, Standard Plus, and Prestige. A customised option is also available for partner banks. Currently, the company offers access to more than 1300 lounges worldwide. Priority Pass offers discounts on dining, retail, and spa services through the Priority Pass app.¹⁴⁴

¹⁴² Frost & Sullivan Market Survey

¹⁴³ Frost & Sullivan Market Survey

¹⁴⁴ <https://www.prioritypass.com/en/our-story>

DragonPass

Dragon Pass company was founded in 2005 in China. Since the company was originally an airport lounge provider, it has developed services and solutions across the entire airport experience. The company boasts a network of more than 1300 airport lounges around the world. It offers a variety of services, from airport restaurants and spas to limousines, as well as meet and greets. Over the years, the company has refined its digital platform, offering its members a comprehensive range of full services accessible from one app.¹⁴⁵

Revenue of Key Players

Table 83: Revenue of Key Players, FY 2017-2022

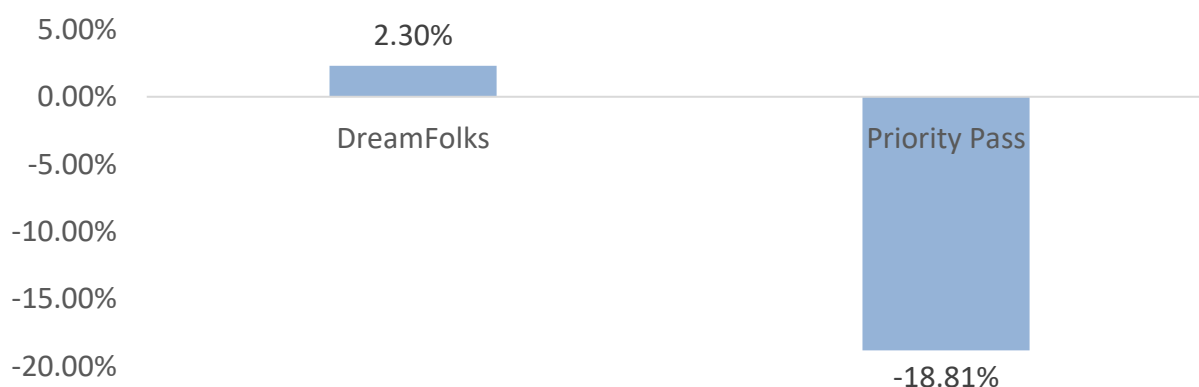
Revenue of Key Players (In INR Crores)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
DreamFolks	98.7	165.6	249	364.8	108.11	282.4
DragonPass	589	825	1155	NA	NA	NA
Priority Pass	2516.1	3455.2	3998.7	4181.5	1093.2	NA

NA- Not Available

Source: Company Websites and Annual Reports | Note: The indicated revenues of Dragon Pass and Priority Pass are global. These are not directly comparable to DreamFolks as currently the major source of revenue for DreamFolks is from India only. Financials for DreamFolks and Priority Pass are in FY and financials for Dragon Pass are in CY.

DreamFolks is a key player in the Indian market and currently accounts for more than 80% of the total lounge traffic in Bangalore, Mumbai, Cochin and Ahmedabad to name a few¹⁴⁶. The revenues of Dragon Pass and Collinson group are indicative of the size of global opportunity which companies like DreamFolks can venture into expansion into new services and new geographies would help DreamFolks increase their customer base and revenue.

Figure 84: CAGR of Key Competitors Revenue, FY 2017-FY 2021



¹⁴⁵ <https://en.dragonpass.com.cn/about/company>

¹⁴⁶ Frost & Sullivan Market Survey

Note: FY 2022 revenues for DreamFolks was INR282.4 crores and the CAGR for the period FY 2017-FY 2022 is 23.40%. The financial data for FY 2022 is not available Priority Pass. The above CAGR calculation are for the period FY 2017- FY 2021 for which data is available for DreamFolks and Priority Pass. The CAGR for DragonPass for the period FY2017-FY 2019 is 40%, financial data for the rest of the years is not available.

The CAGR of DreamFolks is around 2%, DreamFolks experienced a dip in revenue in FY 2021 due to the impact of COVID. The first mover advantage coupled with their service model has enabled DreamFolks to become a dominant player in the industry with a share of over 80% in the Domestic lounge access market in India

Banking Partnerships ¹⁴⁷

- DreamFolks covers most of the banks in India, it covers India's largest private and public sector card issuing companies such as HDFC Bank Limited, SBI Cards and Payment Services Limited and ICICI Bank Limited.
- This strong network is expected to support their entry into the international market.
- DreamFolks accounts for almost 95%-97% of the India issued debit and credit card based access to the lounges for FY 2020. The company has been successful in building the bridge between the lounge operators and the debit or credit card issuers.
- It is also important to note that out of an estimated 7.5 Million (FY 2020) passengers using lounges in India more than 80% (Domestic Lounge) use India issued credit and debit card method to access the lounges.
- However, the access to international lounges is also facilitated through foreign cards, other loyalty cards and Airline based access.
- DreamFolks has coverage across 54 lounges constituting 100% of India's Airport lounges across domestic and international airport terminals.

Key Credit Card Programs: Lounge Access

The below section enumerates the key credit card programs which provides complimentary access to lounges. DreamFolks has a tie up with majority of prominent card issuers to act as service provider between the lounge operator and the bank. One of the initiatives of DreamFolks has been to update its' technology platform which can do the accounting of the benefits in real time and can update the bank when a customer accesses a lounge. The real time update allows DreamFolks to monitor the usage of complimentary access ensuring that there is no overuse by the customers.

- **HDFC Credit Cards** - The airport lounge access facility is available on select HDFC credit cards. As part of the programs, cardholders get complimentary access to India lounges with the same credit/debit card powered by DreamFolks, and some premium cards get global lounge access through a separate

¹⁴⁷ <https://www.paisabazaar.com/credit-card/priority-pass-membership-credit-cards/>

membership card which is complimentary /paid via PriorityPass. Some HDFC credit cards that offer lounge access are HDFC Visa Signature Credit Card, HDFC Business Regalia Credit Card, HDFC Bank Diners Club Black Credit Card, HDFC Bank Infinia Credit Card, and JetPrivilege HDFC Bank Platinum.

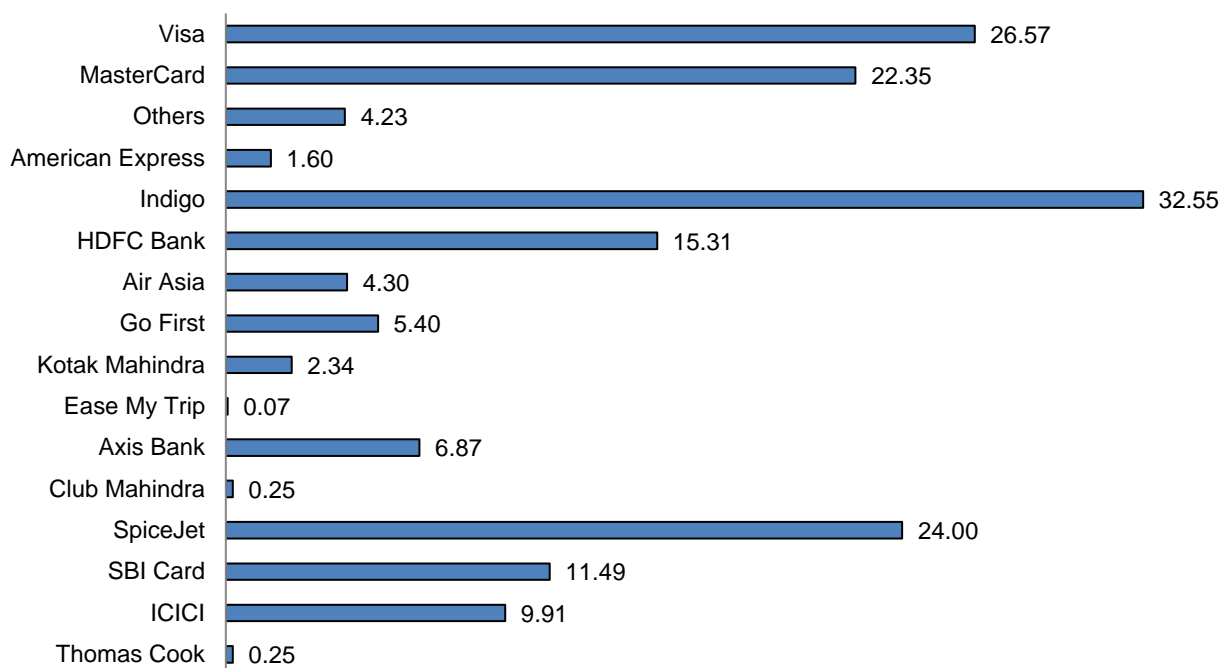
- **SBI Credit Cards** - SBI Cards offers several credit cards with access to India airport lounges. Several cards offer membership to the International lounge access program via PriorityPass and DreamFolks. Other offers Visa/Mastercard/Rupay Lounge Access membership programs that provides complimentary and paid access to airport lounges powered by DreamFolks. Some of the SBI credit cards that offer airport lounge access are SBI Aurum Card, SBI Elite Card, SBI Platinum Card, Yatra SBI Credit Card, SBI Advantage Platinum Credit Card, SBI Tata Croma Platinum Credit Card, and SBI Platinum Corporate Card.
- **Axis Bank Credit Cards** - Axis Bank Airport Lounge Credit Cards offer free and paid access to airport lounges within and outside India. In addition to the primary cardholder, any guests must pay to visit the lounge. Additionally, some cards offer complimentary lounge access to the principal cardholder's family and friends. Some of the Axis bank credit cards for airport lounge access are Axis Bank Miles & More World Credit Card, Axis Bank Privilege Credit Card, Axis Bank Reserve Credit Card, and Axis Bank, Axis Bank Atlas, Signature Credit card.
- **ICICI Bank Credit Cards** - The ICICI credit cards provide access to lounges at various domestic and international airports in India. Many cards allow customers to access select airport lounges both for free and for a fee. The credit cards are ICICI Bank Emerald Credit Card, ICICI Bank Sapphire Credit Card, ICICI Bank Carbon Credit Card, ICICI Bank Rubyx Visa Credit Card, and ICICI Bank VISA Signature Credit Card. Premium cards such as Emerald and Sapphire also allow access to international lounges outside India, and airport spa in India, via the DreamFolks membership programme.
- **IndusInd Bank Credit Cards** - Several credit cards from IndusInd Bank offer airport lounge access. IndusInd Bank customers can access airport lounges through IndusInd Bank Platinum Aura Credit Card, IndusInd Bank Platinum Select Credit Card, IndusInd Bank Indulge Credit Card, IndusInd Bank Iconia Credit Card, and IndusInd Bank WorldMiles Credit Card.

Customer Base for DreamFolks: Leveraging Partnerships

The customer base for DreamFolks has been derived based on the existing partnerships and the qualifiable lounge user population.

Figure 85: Customer Base for DreamFolks, October 2021 ¹⁴⁸

¹⁴⁸ <https://trak.in/tags/business/2021/04/24/american-express-diners-club-banned-in-india-from-adding-new-users-15-lakh-existing-users-impacted/>



No of Potential Customers (In Million)

Note: Customer base derived through partnerships for DreamFolks. The Bank numbers specify the total number of outstanding credit cards, while airlines and other partner numbers represent their customer base | Airline data is FY 2020. Bank data is up to Dec 2020. Diners card data is not available as they work with HDFC Bank in India ¹⁴⁹. Data for RuPay not available for Credit Card¹⁵⁰

Observations

- The Indian credit card market comprises of 5 of the world's largest card networks viz., Visa, Master Card, Discover, RuPay and American Express, and there are no other card networks operating in India. DreamFolks provided India lounge access, for almost all India-issued credit / debit card from these 5 networks in FY 2020.
- Visa, Rupay, and MasterCard are seen to account for the largest customer base.
- In terms of Airlines, the partnership with IndiGo is expected to hold the largest share within this market.
- In terms of various banks, HDFC accounts for the largest market share followed by SBI.
- DreamFolks also services India's sector leading corporates viz., airline companies such as Indigo, GoFirst and Air Asia, telecommunication service providers such as

<https://www.clubmahindra.com/company-overview#:~:text=Started%20in%201996%2C%20the%20company's,resorts%20in%20India%20and%20abroad.>

<https://www.business-standard.com/company/fortis-health-24049/information/company-history#:~:text=It%20operates%20a%20network%20of,2.6%20million%20patients%20in%20FY17>

[https://resources.thomascook.in/downloads/Thomas_Cook_\(India\)_Limited-Annual_Report_2019-2020.pdf](https://resources.thomascook.in/downloads/Thomas_Cook_(India)_Limited-Annual_Report_2019-2020.pdf)

¹⁴⁹ https://www.business-standard.com/article/finance/rbi-lifts-restrictions-on-diners-club-allows-onboarding-of-fresh-customers-121110901263_1.html

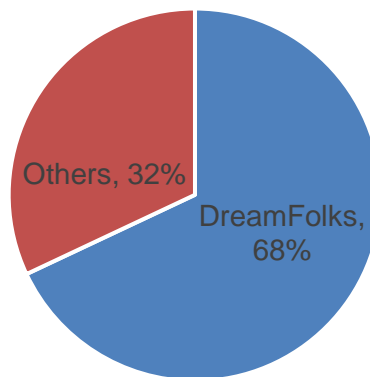
¹⁵⁰ https://www.business-standard.com/article/companies/rupay-set-to-expand-credit-card-business-in-india-take-it-to-masses-121032000038_1.html

Vodafone Idea Limited, and clients such as Easy Trip Planner Limited and Mahindra Holidays.

MARKET SHARE BY VOLUME OF PASSENGERS

DreamFolks constitutes to around 68% in FY 2022 of the overall lounge traffic in volume across all lounges in Indian airport, this includes both the domestic and international lounges.

Figure 86: Total Lounge Access Market Share By Customer Base, Presence across lounges in India (International and Domestic Lounge), FY 2022



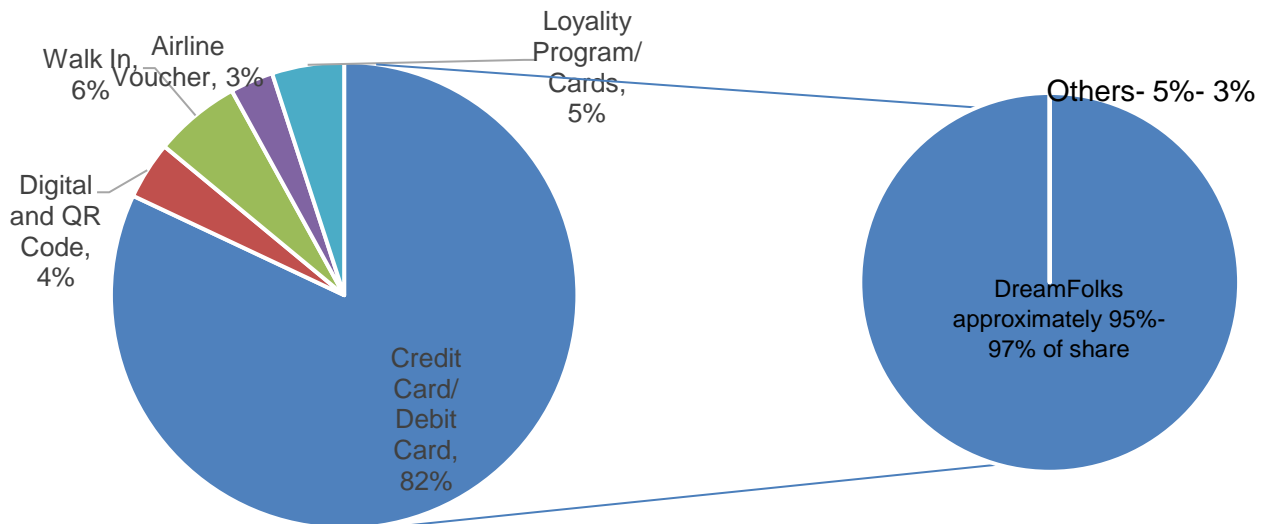
Source: Frost & Sullivan Estimates

Between 2016-2020, it was noted that 90%+ traffic for most of the lounges is provided by Dreamfolks.

MARKET SIZING AND FORECAST OF THE AIRPORT LOUNGE ACCESS AGGREGATOR MARKET IN INDIA

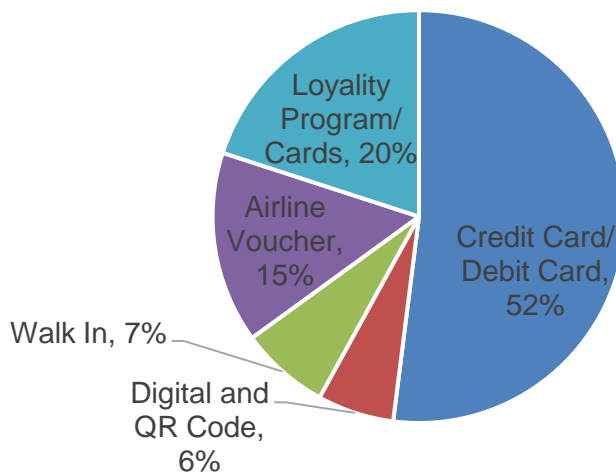
Indian Domestic Lounge Market Share By Access Method

Figure 87: Market Share covered by, By Customer Base, Presence across lounges in India(Domestic Lounge, FY 2022)¹⁵¹



Note: The above diagram represents the market share for Lounge aggregators present across various airports in India (Domestic Lounges Only) for FY 2022 | Source: Frost & Sullivan Estimates based on Primary and Secondary Sources

Figure 88: International Lounge Access Methods in Percentage, (Indian Lounges, FY 2022)



¹⁵¹ <https://airport.mastercard.com/en/lounge-finder/country?countrycode=IND>
<http://indiaairport.com/lounges/index.htm>
<https://www.prioritypass.com/en/lounges/india>
<https://en.dragonpass.com.cn/airports>

Note: The above diagram represents the market share for Lounge aggregators present across various airports in India for FY 2022(International Lounges Only). | Source: Frost & Sullivan Estimates based on Primary and Secondary Sources

Section Observations:

- DreamFolks is India's largest airport service aggregator platform facilitating enhanced airport experience to passengers and accounts for around 68% of the overall lounge access volume in India (Domestic and International) FY 2022.
- The total number of lounge users are estimated at around 5.2 million passengers in FY 2022 for Domestic and International lounges.
- Out of this around 80% of domestic passengers prefer usage of Indian issued credit / debit cards to gain access to Indian domestic lounges.
- DreamFolks accounts to around 95%- 97% of the market to access lounges through India- issued credit / debit cards for Domestic Lounges in FY 2022.
- It is important for the lounges to continue giving access to debit and credit card users to ensure higher lounge utilization.

Indian Lounge Access Aggregator Market Forecast FY 2023- FY 2030 (In Volume (Passenger (Pax) Million))

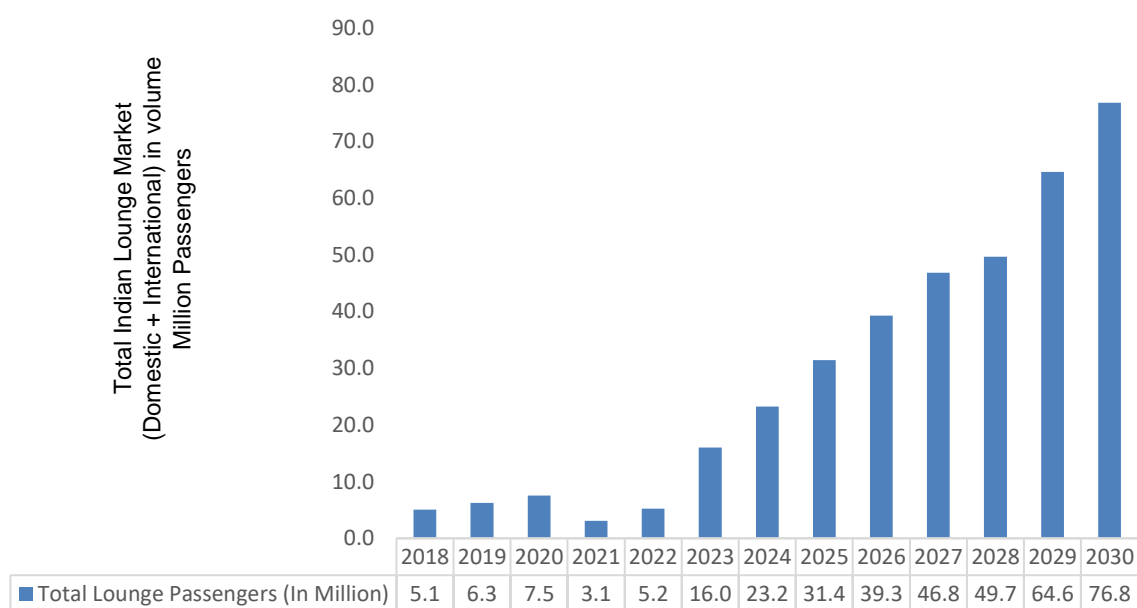
The lounge access aggregator market was studied by Frost & Sullivan, using both secondary and primary research methods. The methodology for estimating the market is as given below:

Step 1- The number of lounge users were estimated at 5.2 million passengers for the year FY 2022 this includes both international and domestic passengers.

Step 2- The number of India issued credit card-based lounge access is estimated at around 80% for Indian domestic lounges and around 40% for Indian International Departure lounges.

Step 3- DreamFolks accounts for almost 95%-97% of this India issued credit and debit card segment due to its tie-up with all of the aforementioned card networks such that most transactions undertaken by customers in airport lounges happen on the Dreamfolks platform.

Figure 89: Lounge Access Market Size in India (No of Passengers in Millions), FY 2018-2030



Note:¹⁵² All years are in FY (March-April). FY 2018-FY 2022 are (estimated) historical, FY 2023-FY 2030 are forecasted. The forecast model is based on three key parameters, namely the overall growth in air travel, growth in business travel and growth in credit and debit card base. The above includes all airport lounges, domestic and international. Lounge user numbers across all years are estimated by Frost & Sullivan based on Primary Discussion as there is no government or any other reliable source of data.

¹⁵² <https://www.businesstoday.in/latest/economy-politics/story/india-holds-huge-potential-in-airport-lounge-market-song-hoi-see-of-plaza-premium-lounge-155743-2018-11-01>

From 7.5 million in FY 20, the market dipped in FY 2021 due to COVID and is currently showing signs of a quick recovery. The lounge market is expected to reach 76.8 million passengers in FY 2030.

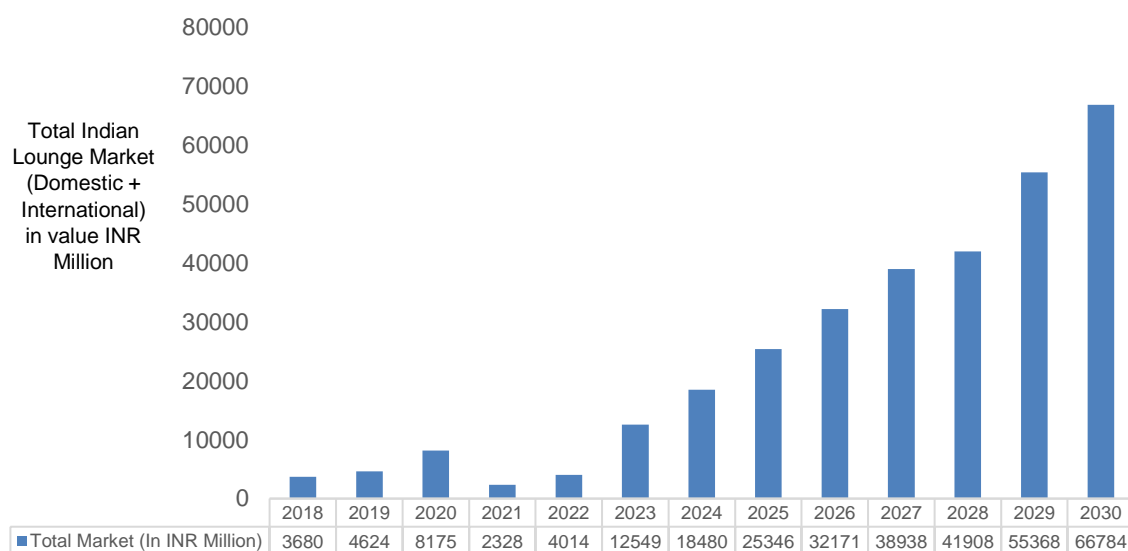
Indian Lounge Access Aggregator Market Size & Forecast FY 2023- FY 2030(In Value (INR Million))

Assumptions:

- The airline sector is expected to increase in a Post COVID environment as explained in the earlier sections of the document
- 20%-30% of the domestic air travel is business related travel

The overall Indian lounge market which includes passengers accessing both Domestic and International lounges is estimated at around INR8,175 million (FY 2020). The forecasted market of lounge access by all methods is as follows.

Figure 90: Indian Airport Lounge Access Market Size, In INR Million, FY 2018- FY 2030



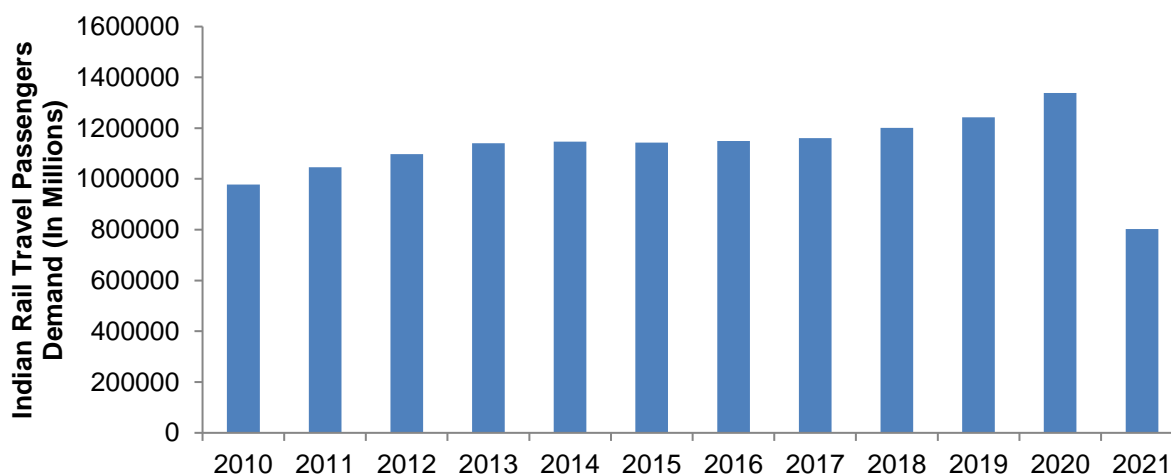
Note: All years are in FY (March-April). FY 2018-FY 2022 are (estimated) historical, FY 2023-FY 2030 are forecasted. The forecast model is based on three key parameters, namely the overall growth in air travel, growth in business travel and growth in credit and debit card base. The above includes all airport lounges, domestic and international. Lounge user numbers across all years are estimated by Frost & Sullivan based on Primary Discussion as there is no government or any other reliable source of data.

There was a dip in FY 2021 values due to COVID, as compared to FY 2020. In the current financial year (FY 2023), the market is estimated at around INR12,549 million, which includes both domestic and international lounges across all Indian airports. This is expected to grow to INR66,784 million by FY 2030. Around 80% of the lounge traffic in Indian domestic lounge is through India issued credit and debit cards and DreamFolks dominates almost 95%-97% of this market.

INDIAN RAILWAY ECOSYSTEM

Indian Railways dominate the domestic travel industry for the country. The demand for domestic rail travel between the years 2010-2020 is recorded to be 3.2%. The demand between FY 2020 and FY 2021 witnessed a 30%-40% drop due to COVID.

Figure 91: Rail Travel Demand in India (Passengers)¹⁵³¹⁵⁴



Note: Rail Travel Demand in India. All values are in FY (April- March)

The growth in rail passenger demand offers a lucrative market for lounge operators within India. Therefore, as of 2021 roughly 7 railway stations in India presently offer executive lounge services. The executive lounge is to serve as a private waiting area for travellers before boarding their respective trains. Railway stations in India with lounge facilities are Ahmedabad, Vijayawada, Agra Cantt, Jaipur, New Delhi, Vishakhapatnam, and Madurai. It is expected that most of the railway stations in the major cities like Mumbai, Bangalore, Kolkata and Chennai would have railway lounges, the next attractive market for railway lounges would be the key railway junctions.

Some of the railway stations with upcoming lounge facilities include Kathgodam, Patna, Sealdh, Howrah, Bhubaneshwar, Puri, Nagpur, Bengaluru, Ludhiana, Amritsar, Lucknow, and Gorakhpur.¹⁵⁵ The existing lounge facilities in India offer services in exchange for payment via all visa/master/maestro debit/credit cards. This is expected to increase the number of credit cards with lounge facilities.¹⁵⁶ Moreover, the introduction of railway executive lounges is anticipated to offer unparalleled growth potential for the lounge operators and lounge aggregators market.

In addition to providing Services at airports, DreamFolks has also, in the recent past, forayed into the railways sector and, are providing lounge access, at around 5 railway stations in India.

¹⁵³ <https://data.worldbank.org/indicator/IS.RRS.PASG.KM>

¹⁵⁴ <https://indianrailways.gov.in/NRP-%20Draft%20Final%20Report%20with%20annexures.pdf>

¹⁵⁵ <https://www.irctchelp.in/irctc-executive-lounge/#rasnd>

¹⁵⁶ https://www.irctctourism.com/LoungeHTML/Lounge_FAQS_NDLS.htm