AIR TRANSPORT ECONOMICS & STATISTICS

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RECAP

- Economics: Meaning & Nature
- Law of Demand, Elasticity of demand & demand forecasting
- Law of Supply, Elasticity of supply
- Market equilibrium
- Cost & Production Analysis
- Market Structures

Aviation Forecasting Methods

- **I: Qualitative Techniques**
- a. Focus Group
- b. Market Survey
- c. Market Experiment
- d. Barometric Technique
- e: Historical Analogy
- f Delphi Method

Aviation Forecasting Methods- II

- **Quantitative Techniques**
- **a. Descriptive Statistics- Mean, Variance, Standard Deviation**
- **b. Time Series Analysis – Trend Analysis, Seasonal variation, cyclical and random effect**
- **c. Regression:** $Yi=B_0+B_iX+\varepsilon$

MACROECONOMIC CONCEPTS OF AIR TRANSPORTATION

- **Evolving Air Transport Industry**

- Financial Condition of Air Transport Industry

Evolving Air Transport Industry

Indicator	Global Aviation	Indian Aviation
Passenger Demand (2023)	85-90% of pre-pandemic levels	Near full recovery in domestic; international slower
Revenue Growth	Rebounding but below 2019 levels	High domestic growth, international lagging
Cargo Revenues	High but stabilizing post-pandemic	Cargo sector growth driven by e-commerce
Fuel Price Impact	Significant rise in fuel costs	Jet fuel is 40-50% of airline costs in India
Profitability	Expected to return by 2024 globally	Mixed—IndiGo profitable, others struggling
Debt Levels	High due to pandemic borrowing	High debt burdens across most airlines in India

Air Transport Consolidation & Herfindahl Hirschman Index (HHI)

- $\sum HHI = s_1^2 + s_2^2 + \cdots + s_n^2$ where n is the number of firms in the market and s_n denotes the market share of the the *n*th firm

DETERMINANTS OF WORLD AIR TRAFFIC GROWTH

- GDP
- Population Growth
- Economic Liberalization
- Inflation
- Exchange Rate
- Interest Rate
- Fiscal Policy
- Consumer Confidence
- Environmental Regulations
- Political Economy /Stability
- Tourism (Promotion)

ECONOMIC IMPACT OF AIR TRANSPORT INDUSTRY

- Direct
- Indirect
- Induced