

# AIRDASHER

**ANALYTICAL INTELLIGENCE IN ROUTE DEVELOPMENT AND  
STRATEGIC HANDLING OF ECONOMIC RESOURCES**

**SUBMISSION FOR THE R<sup>2</sup> DATA LABS RESPONSIBLE GROWTH HACKATHON**

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# WHAT IS THE PROBLEM HERE?

DEMAND FOR AIR TRAVEL IS EXPECTED TO RAPIDLY INCREASE FOR THE NEXT FEW YEARS DUE TO -



GROWING ECONOMIES ACROSS INDIA INCREASE DEMAND FOR INTER-CITY AIR TRAVEL



LOWER FLIGHT FARES HAVE BRIDGED THE INCOME GAP, ESPECIALLY FOR THE MIDDLE-CLASS



CIVIL AVIATION INDUSTRY IS EXPECTED TO RECOVER & GROW FOR POST-PANDEMIC PERIODS

THIS HAS PROVIDED AIRPORTS WITH AN OPPORTUNITY TO EXPAND THEIR NETWORK & CAPITALIZE ON THE INCREASING DEMAND.

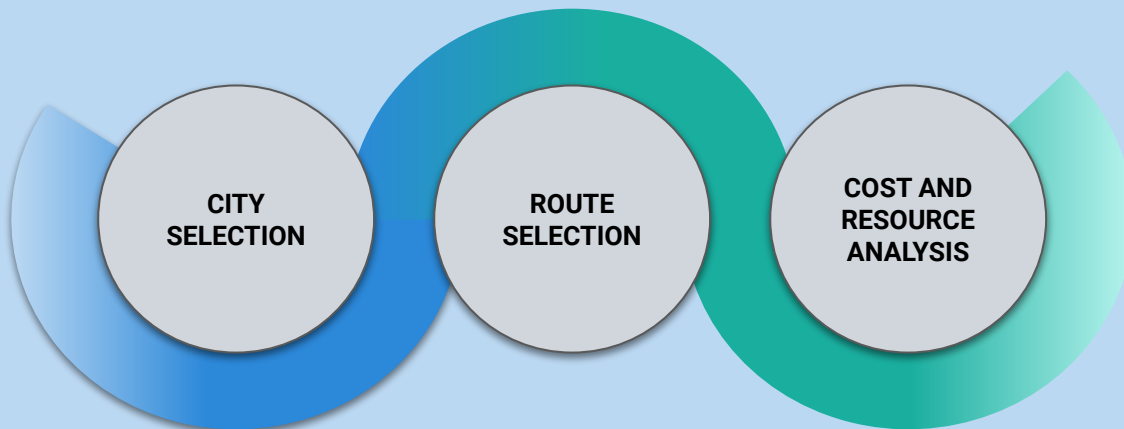
FOR LOW-COST U.S. CARRIERS, AS LOW AS 50% OF NEWLY DEVELOPED ROUTES REMAINED IN SERVICE TWO YEARS AFTER INAUGURATION.  
HOW TO INCREASE THE **SUCCESS RATE** OF SUCH NEW ROUTES?

DIRECT CUSTOMER FEEDBACK IS USEFUL BUT DIFFICULT, TIME-CONSUMING & EXPENSIVE TO COLLECT. CAN CITY-WISE **MACRO-ECONOMIC** FACTORS BE USED TO PREDICT DEMAND FOR NEW ROUTES?

NEW ROUTE DEVELOPMENT HAS SEVERAL COMPLEXITIES INVOLVED IN TERMS OF BUSINESS MODEL, STRATEGIES & PARAMETERS. CAN A SYSTEM BE BUILT TO PROVIDE **PARAMETERIZED** COST ANALYSIS?

# APPLICATIONS OF AIRDASHER

## NEW ROUTE DEVELOPMENT



Identify cities having high demand & growth in air travel

Identify best routes to integrate city into airline's network

Perform highly parameterized cost & resource analysis

## NEW AIRPORTS



DATA-DRIVEN SUGGESTIONS FOR CREATION OF NEW AIRPORTS IN CITIES

HAVING HIGH DEMAND AND FUTURE GROWTH IN AIR TRAFFIC

## CIVIL AVIATION ANALYTICS



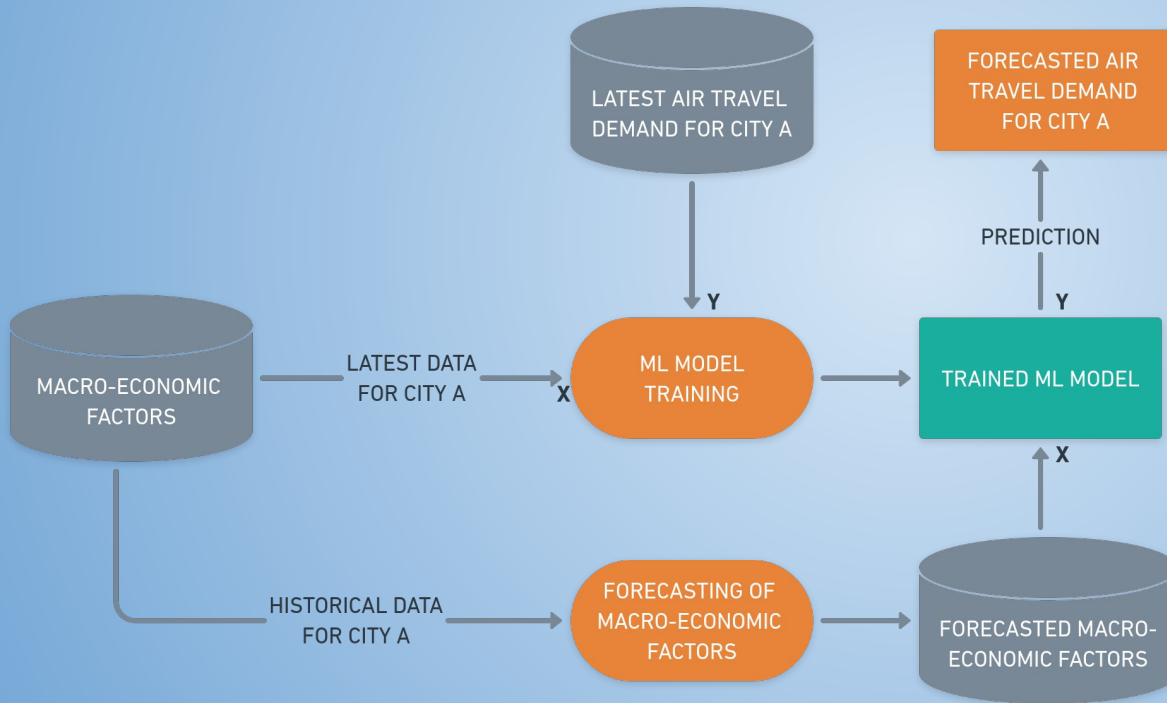
STATISTICS & INSIGHTS ABOUT INDIAN/APAC CIVIL AVIATION SECTOR

# MARKET SIZE & COMPETITION

| APPLICATIONS                        | TARGETED MARKET                       | COMPETITION   |
|-------------------------------------|---------------------------------------|---|
| Route Opportunity Analysis          | Airlines                              | Jeppesen Aircraft Routing, ASM Passenger Route Forecast                     |
| Route Cost Analysis & Optimizations | Airlines                              | ASM Passenger Route Forecast Tool   |
| New Route/Airport Development       | Airports                              | Avia Solutions' Route Development, ASM Airport Long Term Passenger Forecast |
| New Route/Airport Development       | Regional Governments / Tourism Boards | Avia Solutions' Route Development   |
| Aviation Analytics                  | Aircraft Lessors & Manufacturers/OEMs | Cirium Airline Routes   |

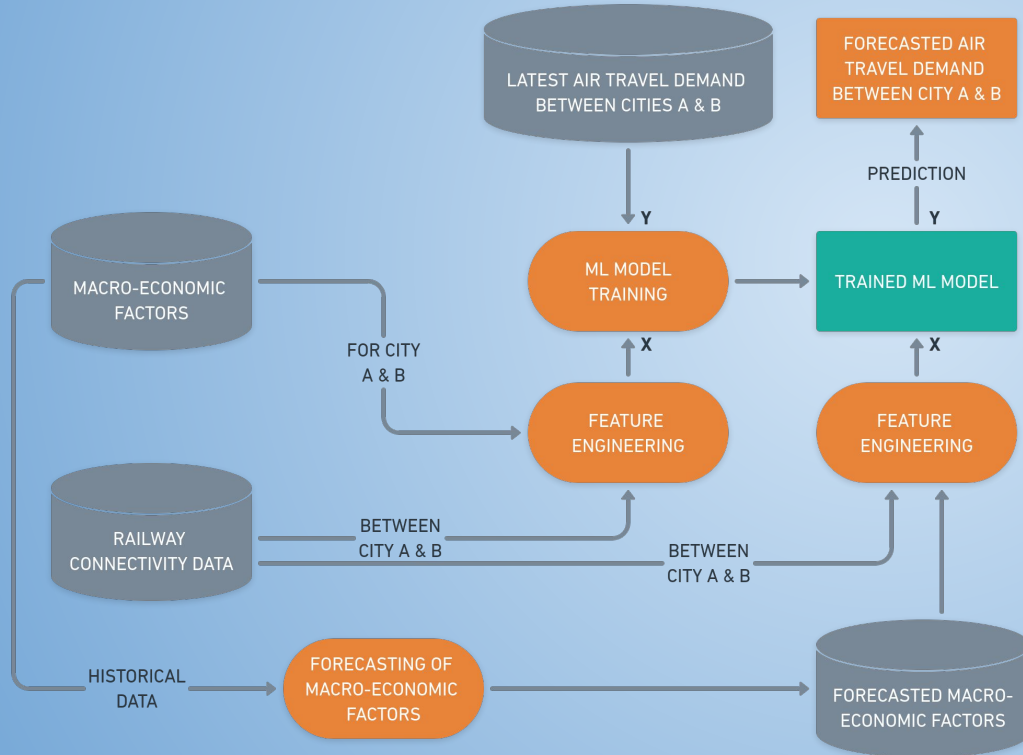
| MARKET                      | MARKET SIZE   | MARKET GROWTH  |
|-----------------------------|---|--|
| Indian Airlines             | 8 Major + 6 Scheduled Commuter Airlines with total of 700+ operating fleet size   | India is the 3rd largest & <b>fastest growing</b> aviation sector in the world. Among 14 main Indian airlines, <b>1400+ new orders</b> have been made to increase total fleet by ~200%.                    |
| Route Development Analytics | Global Aviation Analytics market worth ~\$2 billion dollars while Route Profitability Software market worth ~\$10 billion | Global Aviation Analytics market expected to grow to ~\$5 billion by 2028 at <b>CAGR of 12%</b> while Route Profitability Software market expected to grow to \$27 billion by 2030 at <b>CAGR of 10%</b> . |

# ROUTE DEVELOPMENT: STEP 1 - CITY SELECTION



USE MACRO-ECONOMIC FACTORS TO TRAIN A MODEL. THEN FORECAST THESE MACRO-ECONOMIC FACTORS, APPLY THEM TO THE TRAINED MODEL TO GET FORECASTS

# ROUTE DEVELOPMENT: STEP 2 - ROUTE SELECTION

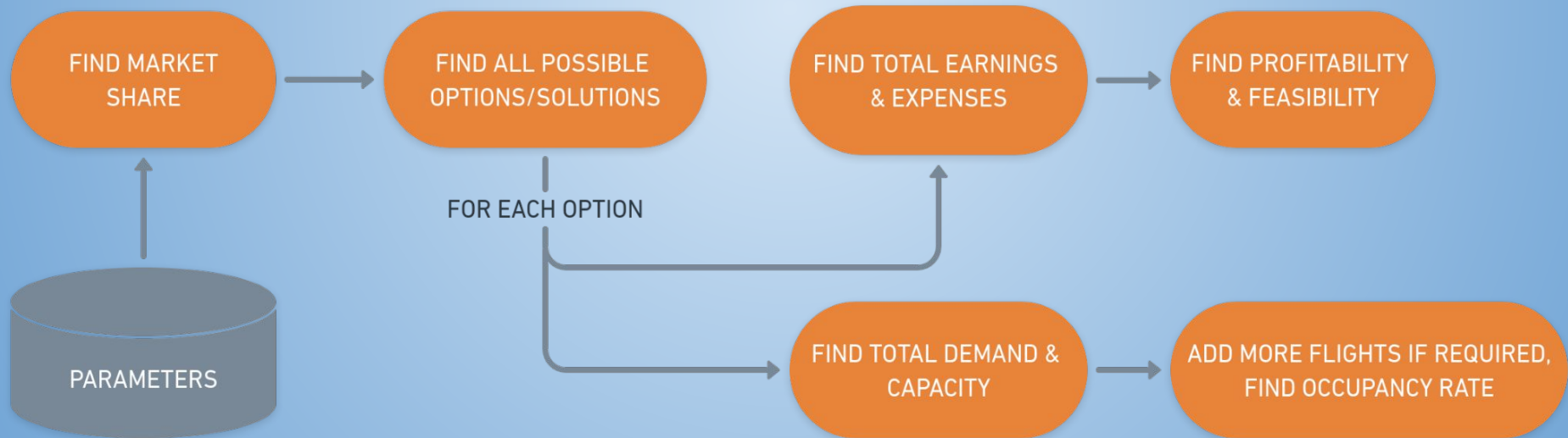


USE MACRO-ECONOMIC FACTORS OF SOURCE & DESTINATION CITIES ALONG WITH RAILWAY CONNECTIVITY DATA TO TRAIN A MODEL. THEN FORECAST THE MACRO-ECONOMIC FACTORS, APPLY THEM FOR SOURCE & DESTINATION CITIES ALONG WITH RAILWAY CONNECTIVITY DATA TO THE TRAINED MODEL TO GET FORECASTS

# ROUTE DEVELOPMENT:

## STEP 3 - COST/RESOURCE ANALYSIS

FOR A GIVEN ROUTE, FIND MARKET SHARE BASED ON PRICING & NO. OF FLIGHTS. THEN FOR DIFFERENT COMBINATIONS/OPTIONS OF FREQUENCIES & AIRCRAFT TYPES, CALCULATE THE TOTAL EARNINGS, EXPENSES, DEMAND & CAPACITIES TO JUDGE AN OPTION'S FEASIBILITY



# OTHER APPLICATIONS

## NEW AIRPORTS

USE THE TRAINED MODEL IN 'CITY SELECTION' STEP TO PREDICT CURRENT AIR TRAVEL DEMAND FOR A CITY WITH NO AIRPORT

FORECAST THE MACRO-ECONOMIC FACTORS OF CITY, APPLY IT TO THE MODEL AGAIN TO GET FORECASTED AIR TRAVEL DEMAND

## CIVIL AVIATION ANALYTICS

FIND INSIGHTS & STATISTICS FROM A COMPREHENSIVE MANUALLY-BUILT DATASET COMPRISING INFORMATION OF 850+ FLIGHTS CONNECTING 125+ INDIAN TIER-I/II CITIES AS WELL AS ASIA-PACIFIC REGIONS



# BUSINESS MODEL

## END-TO-END ROUTE DEVELOPMENT TOOL FOR AIRLINES

- Targeted towards Airlines
- Application includes Air Travel Demand Analysis along with Parameterized Cost & Resource Analysis

## CIVIL AVIATION SECTOR ANALYTICS TOOL

- Targeted towards Airports, Regional Governments / Tourism Boards, Aircraft Manufacturers & OEMs
- Application includes Air Travel Demand Analysis of India/APAC civil aviation sector

| BUSINESS FEATURE   | OPEX           |
|--|----------------|
| WEB SERVER (RENT), DOMAIN NAME, SSL CERTIFICATES, WEB DESIGN | \$100 / MONTH  |
| MARKETING & SEO  | \$5000 / MONTH |
| BUSINESS CLOUD STORAGE                                       | \$25 / MONTH   |

### TIMELINE:

| STAGE                  | DURATION |
|------------------------|----------|
| MINIMUM VIABLE PRODUCT | 3 MONTHS |
| PRODUCT OFFERING       | 9 MONTHS |

# KEY SUCCESS FACTORS



**QUICK ENTRY INTO MARKET TO CAPITALIZE ON POST-PANDEMIC REVIVAL & GROWTH OF AIR TRAVEL ACROSS INDIA**



**BEST FORECASTS COULD BE OBTAINED BY COMBINING DIRECT CUSTOMER FEEDBACK WITH MACRO-ECONOMIC INFO**



**EXPERT KNOWLEDGE ON AIRLINE OPERATIONS, COSTS, RISKS & STRATEGIES WILL HELP IN SETTING CORE BUSINESS DIRECTION**