



Assignment 2: Route Profitability Evaluation

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Module A2 : 31 March 2016

Assignment 2: Route Profitability Analysis

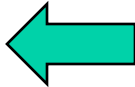
- **Turkish Airlines is considering the Istanbul-Vancouver (IST-YVR-IST) route for introduction of a single daily non-stop flight, as part of its Star Alliance relationship with Air Canada.**
- **In this assignment, you will explore the potential profitability of THY providing non-stop service on this route, using a B777-300ER aircraft.**
- **The worksheet (ISTYVR.XLS) presents a complete profit evaluation of the proposed IST-YVR service for THY showing an annual operating margin of 1.7%.**

Fully Allocated Segment Profitability

- **This baseline evaluation makes use of the concepts of fully allocated segment profitability, based on the following information:**
 - Demand forecasts and average PRORATED fare estimates for Business, Premium Economy, and Economy demand, both local and connecting;
 - An assumed 70% market share of the local IST-YVR traffic;
 - Flight operating information;
 - Detailed direct operating cost estimates for the B777-300ER aircraft, in a 28 Business Class, 63 Premium Economy, and 246 Economy Class seat configuration (337 seats total); and
 - Estimates of indirect operating costs for passenger servicing, aircraft and traffic servicing, promotion and sales, and administration overhead.
 - **What makes this a fully allocated profitability assessment?**

Worksheet Structure

- Annual Demand and Passenger Revenues

<u>1. ANNUAL DEMAND AND PASSENGER REVENUES</u>	BUSINESS CLASS	PREMIUM ECONOMY	ECONOMY CLASS	TOTAL PASSENGERS
TOTAL Local IST-YVR demand (total OW trips X2)	1,100	2,000	65,400	68,500
Estimated THY Share of Local Demand	70.0%			
Local Passengers on new THY Flight	770	1,400	45,780	47,950
Average Local Fare	\$ 1,150	\$ 795	\$ 605	
THY Local Passenger Revenue	\$ 885,500	\$ 1,113,000	\$ 27,696,900	\$ 29,695,400
Additional Connecting Traffic (Estimated for THY at IST)	9,800	25,850	98,400	134,050
Average Prorated Fare to IST-YVR Legs	\$ 880	\$ 590	\$ 475	
Network Contribution on other THY Flights				
THY Connecting Passenger Revenue	\$ 8,624,000	\$ 15,251,500	\$ 46,740,000	\$ 70,615,500
TOTAL PASSENGERS	10,570	27,250	144,180	182,000

Worksheet Structure (2)

- Flight Operating Information:

2. FLIGHT OPERATING INFORMATION

Block Hours IST to YVR	13.30	Annual Departures	720
Block Hours YVR to IST	12.20	Round Trip Block Hours	25.50
Distance IST-YVR (km)	9646	RPKs	1,390,760,280

- Estimated Operating Costs:

3. ESTIMATED OPERATING COSTS

Aircraft Type B777-300ER

Cost per Block-Hour:

Crew Cost	1450
Fuel/Oil	3350
Ownership	1030
Maintenance	740
Total per Block-Hour	6570

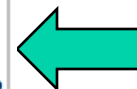
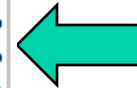
Indirect Operating Costs

Passenger Service	0.020	per RPK
Traffic Servicing	\$25	per Enplanement
Aircraft Servicing	\$2,200	per Departure
Promotion and Sales	9.00%	of Passenger Revenues
General and Admin	\$0.002	per ASK

Worksheet Structure (3)

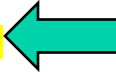
- **Loads and Revenues:**

<u>4. LOADS AND REVENUES</u>	
<u>Aircraft Configuration</u>	
Business Class Seats	28
Premium Economy Seats	63
Economy Class Seats	246
TOTAL SEATS	337
ASK	2,340,505,440
Seat Departures	242,640
Business Load Factor	52.4%
Premium Economy Load Factor	60.1%
Economy Load Factor	81.4%
TOTAL PAX REVENUE	\$ 100,310,900
CARGO CONTRIBUTION	\$ 8,550,000
DIRECT OP COSTS	60,312,600
PAX SERVICE	27,815,206
TRAFFIC SERVICE	3,604,500
AIRCRAFT SERVICE	1,584,000
PROMOTION/SALES	9,027,981
GEN ADMINISTRN	4,681,011
OPERATING COSTS	107,025,297
UNIT COST	\$ 0.046
OPERATING PROFIT	1,835,603
OPERATING MARGIN	1.7%



Question 1: Market Share Assumption

- The spreadsheet provided to you is based on a relatively optimistic assumption about THY's market share of IST-YVR local O-D traffic.
- Use this spreadsheet to determine the deviation from the given value (70%) that will cause the service to become unprofitable, holding all else constant.

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Question 2: Network Contribution

- Revise the baseline spreadsheet (market share = 70%) to include Network Contribution in the profit calculations, by adding the following estimates of additional network contribution for carrying the connecting passengers on this new flight:

Business: \$420 Premium: \$230 Economy: \$160

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Question 2: Network Contribution (Continued)

- **Describe what is meant by “network contribution,” and how these values can be interpreted.**
- **Discuss the impacts on the estimated route profits.**
- **Then, use the spreadsheet to find the deviation from the 70% assumed market share of local demand that will cause the service to become unprofitable.**
- **Do these network contribution estimates seem reasonable to you?**
- **What factors would determine the *actual* network contributions on this new flight?**

Question 3: Sensitivity Analysis

- **Evaluate the sensitivity of the Network Contribution values you added above in Part (B).**
- **What effect does a 10% increase or decrease in Business, Premium Economy, and Economy network contribution per passenger have on the profitability of this route?**

<i>Business: \$420 +/- 10%</i>	<i>Premium: \$230 +/- 10%</i>	<i>Economy: \$160 +/- 10%</i>
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- **Note: Perform the sensitivity analyses for all three classes simultaneously (that is, increase or decrease Business, Premium Economy, and Economy network contributions *all* by 10%).**

Question 4: Recommendation

- **Considering the IST-YVR route's profitability estimates and the sensitivity analyses you performed above, provide a detailed recommendation to the Network Planning department as to whether THY should actively pursue this route opportunity.**
- **As a result of your sensitivity analysis, do you think that Turkish Airlines should include network contribution when evaluating route profitability, or rely on a fully allocated segment profitability approach? Why?**