PAD624 – Fall 2012
Experimentation with a Marketing Model:
easyJet Customer Growth and Rivalry Simulator[1]

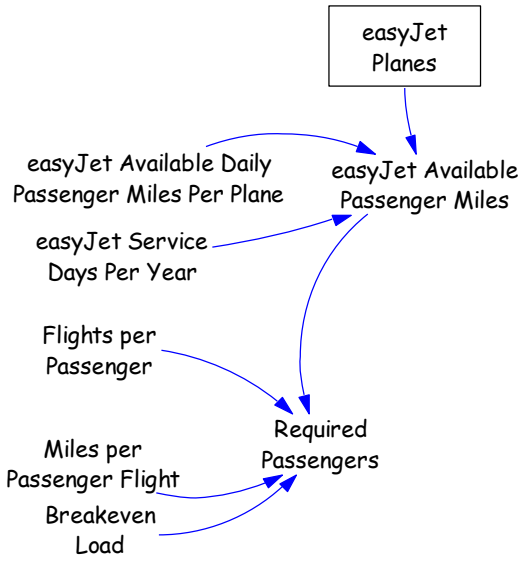
easyJet started operations in November 1995 from London's Luton airport. In two years, it became the model low-cost European airline and a strong competitor to flag carriers. The company has clearly identifiable operational and marketing characteristics: one type of aircraft, point-to-point short-haul travel, no in-flight meals, rapid turnaround time, very high aircraft utilization, direct sales, cost-conscious customer segments and extensive sub-contracting.

Before the launch, easyJet's managers identified three of its nearest low-cost competitors and the strategy of each. easyJet also experienced direct retaliation from large flag carriers like KLM and British Airways (and their subsidiary, Go). These challenges faced easyJet's owner, Stelios Haji-Ioannou, as he signed a $500 million contract with Boeing in July 1997 to purchase 12 brand-new 737s. [2]

What dynamic concerns factor into this type of decision? Developing a new offering or expanding in an existing market requires developing customer awareness of your product and dealing with potential retaliation from firms offering substitutes. As an entrepreneur you would need to understand these elements, as well as others, before committing to build an organization.

The economic model

easyJet's vision was to fill aircraft with cost-conscious customers, rather than fly partially empty planes. Let's assume each aircraft could, at maximum, carry 150 passengers and could make three round-trip flights per day, with an average round trip route of 1000 miles, making 450,000 available daily passenger miles per plane. A fleet of 12 planes in service for 360 days per year makes nearly 2 billion available passengers miles (and revenue generating) capacity. If we make the further assumption that each potential passenger attracted to the airline is likely to fly easyJet twice a year round-trip, again for an average trip route of 1000 miles, then the startup airline needs to maintain a customer base of about 1 million flyers (with its assumed breakeven load factor of .85, higher than the industry standard load of .68). Fewer potential passengers than this level will create a shortfall in revenue, dimming future expectations.

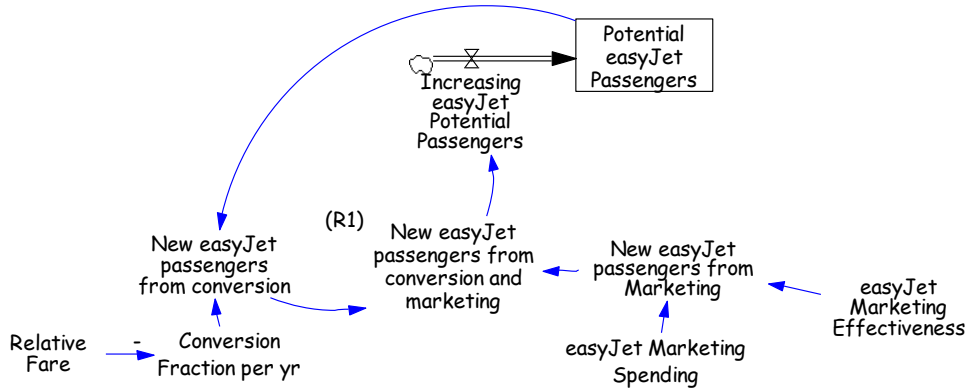


[1] This case and model are based on the Flyers mini-simulator, distributed with Morecroft (2007), "Strategic Modeling and Business Dynamics: A Feedback Systems Approach", Wiley.
[2] For more information on easyJet and the European airline industry see Sull, D. (1999) "easyJet's $500 Million Gamble", European Management Journal 17, 1, 20-38.

Winning customers: Creating awareness and favorable impression

The company has to spread the word to millions of people in a few years if it is to fill 12 brand-new 737s day after day. How do we grow the potential passenger pool?

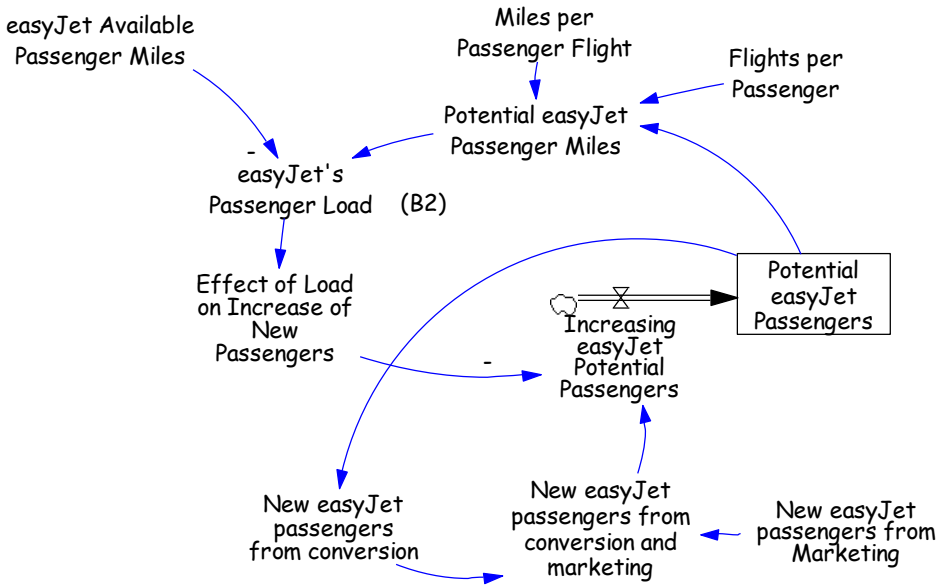
Potential passengers increase through a combination of marketing spending (newspapers, media) and attractive pricing. The initial marketing model for the company rested on the belief that marketing and lower prices will open an untapped market of non-flyers to try easyJet. Marketing alone may induce one passenger per year for every 20 pounds spent on marketing. Another way of expressing this is to define Marketing Effectiveness as .05 passengers per pound spent on advertising each year.



More growth occurs though the feedback effect of word-of-mouth. Word-of-mouth is a kind of social contagion whose power to spread relies on the start-up company's price being much lower than the incumbent rival's price. The incumbents here are large established airlines, flag carriers, such as British Airways and KLM. Market analysis indicates that by landing at underutilized terminals, hiring personnel at lower than market prices, and other cost-containment practices, easyJet could reduce its operating costs to .09 pounds/ passenger / mile if planes operated at virtually full capacity. Flag carriers operate at costs between .25 and .39 pounds / passenger / mile, but provide a different level of service and are able to absorb variations in demand. The greater the relative fare difference, the more individuals convert to being potential easyJet passengers. If there is no price difference, there is no pressure to change from flag carriers.

The growth potential: market size and saturation

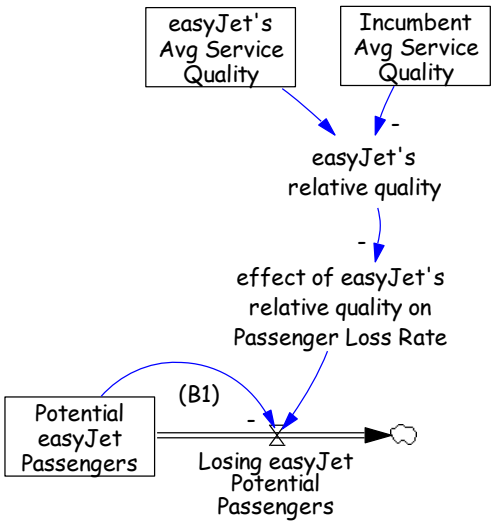
The introduction of a low-cost carrier into the marketplace adds capacity, but it does not guarantee demand. There is always some normal loss of passenger base, sometimes referred to as "churn". Another moderating influence on increasing the potential passenger pool is the effect of the current passenger load. As easyJet's potential passengers grows, the number of flights taken



and miles demanded increases. The capacity to service passengers approaches and saturates the maximum miles available the marketplace, reducing further growth.

The role of quality

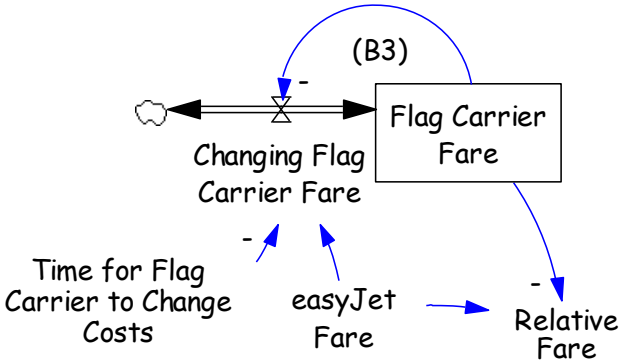
A further influence on the rate at which passengers are lost is the relative quality of service provided. Lower cost service may necessarily influence quality. As the relative quality falls, potential passengers will become disenchanted and leave the pool.



The Empires Strike Back: Flag carrier responses and retaliation

What happens if incumbents try to match the start-up company's low price? The incumbent's price depends on their costs and their margin. These costs are modeled as an accumulation. Operating costs have lots of inertia, and are not reduced quickly or easily. (Thinking point: Why are such costs modeled as an accumulation, rather than as a rate, even though they have units of pounds / year?)

Suppose the incumbents set themselves a target cost equal to easyJet's costs. Changing costs represents restructuring of existing agreements with suppliers and budget priorities. The magnitude of the change is the difference between fares, assuming that margins are roughly equivalent. The pace of restructuring depends on the size of the cost gap in the time required to adjust cost. The adjustment time can be many years.



Think about how long it would take a flag carrier like British Airways to become an exact clone of EasyJet. Fast response by rivals may depend on the startup's visibility or potential leverage in the market. For example, British Airways launched Go to compete with EasyJet. In other cases, other firms may see parallel opportunities in other markets. Thus large carriers may be beset by other challenges, and may want to attempt to reduce costs or absorb operating losses. What is the long term effect on the flag carriers?

The easyJet Simulation Model

The easyJet Simulation Model is organized into three views:

The Control Panel includes three sections:

- Scenario parameters (variables that define the situation, but are not known with certainty and over which you have limited causal control, such as the timing of rival's responses to your actions),
- Easy Jet Policy parameters (variables representing the elements under easyJet's control, such as resources for allocation and can be a basis for experimentation
- Competitor Response Parameter (the assumptions made for how competitors will react)

The Indicators show several useful dynamic metrics.

The Model shows the complete structure of the simulation.

Assignment

1. Using the easyJet model without modification, run a series of experiments that illustrate the outcomes of easyJet's growth model under different assumptions:
   - A cautious marketing strategy for easyJet (.5 million Pounds/year)
   - A bold marketing strategy (2.5 million Pounds/year)
   - Is there a difference in their achievement of sufficient potential passengers to fill their planes?
   - The base model assumes slow retaliation by competitors. What is the effect of a price war for both strategies, where competitors change their costs to meet those of easyJet more quickly? Is the planned strategy of easyJet successful in all cases? Discuss briefly.

2. The model does not include the dynamic effects of the lower cost / lower quality tradeoff. As a systems thinker you know that this omission should be corrected. Quality and perceptions do not change instantaneously in a market, so you will need to identify some variable in the model that indicates changes which, over time, indicate a change in the quality of easyJet's service. Implement the change, with some reasonable averaging time for the adjustment, and re-consider the discussion in the previous section.

3. What resources are needed for airline success besides airplanes and price? Talk about this, but only try to build more model structure if you have a lot of time and energy. We'll talk about this in class.