Southwest Airlines

Managerial Economics
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INTRODUCTION

In 1971, Herb Kelleher and Rollin King pioneered a new concept for a Texas airline that has become the 4^{th} largest in the U.S. Southwest has been the only profitable airline for 29 years by differentiating itself, maintaining low costs, and targeting a different market niche. In its early years Southwest was able to reduce any reactions by major airlines by not targeting the traditionally large routes served by these airlines. This approach allowed them to build strength as an airline and solidify its place as a power in the airline industry. With its regional point-to-point routes, Southwest differentiates itself from the other major airlines traditional hub and spoke system. Southwest decreased both its capital expenses and labor costs by exclusively using the Boeing 737. They also began offering its ticketless travel option, which not only saved the customer time, but also allowed the company to avoid double marginalization selling the tickets directly to the customer. Following is an analysis of Southwest's abilities to create entry barriers and of the strategies they used to create a new market for airlines. The strategies employed by Southwest have allowed it to remain the only profitable airline in the industry for 29 years.

STRATEGY AND DIFFERENTIATION

Since Southwest Airlines was created it had been a mission of the company to differentiate themselves from other airlines in a variety of ways. This was their strategy to begin with and continues to be today. Southwest positioned themselves away from the other airlines so that the major airlines would not feel threatened and feel compelled to retaliate against them. One aspect that Southwest wanted to be different in is that they wanted to be a fun company that made people feel like they were having a good time. During the preflight instructions to passengers on a flight from Houston to Dallas a stewardess was heard saying, "Passengers, who would like to smoke, are asked to take a place in our lounge on the wings, where the film "Gone with the Wind" is shown." Co-founder Herb Kelleher stated that when they were in the initial stages of operation they wanted people to talk about them because the young airline did not have the capital for an extensive advertising campaign. The first way that they achieved this was through hiring attractive and energetic female flight attendants that would help cater to the business traveler. This was unheard of in the airline industry at the time. The business traveler was promised "love" above all else that came to be a cornerstone of Southwest's philosophy towards its customers. It should be of no surprise that Southwest's home base is the Dallas Love Field Airport. The atmosphere created by co-founder Herb Kelleher was not only visible to the customers but also to its' employees. It is not rare to hear of employees speaking of "Herb" as just a member of the family. High employee morale also leads to productive results out of most employees, which will create a successful company. A fun and energetic company was not the only goal Southwest wanted to achieve in its first years.

Most airlines during the late 1970's and early 1980 were adopting a "hub and spoke" system of routes that had routes converging in one or two regional hubs and then proceeding on to their final destination. Southwest began with a strategy of having short-haul, point-to-point, and high frequency flights that allowed them to reduce costs that would pass savings on to their customers. Another benefit of this type of strategy is that planes only have to wait at a gate for an average of 25 minutes. A shorter wait time for Southwest at airports reduces the chance of inconvenience to customers by having to wait at airports longer than necessary. Business travelers have a high value of time and any attempt by an airline to reduce travel time is a good incentive for customers to choose Southwest. This fits in perfectly with Southwest's goal of providing low cost short-haul flights. The short turn around time is a result of Southwest flying to destinations not usually served by larger airlines and also because when they do fly into major cities they fly into a secondary airport which is less congested and usually closer to the downtown area than major airports. Good examples of these would be Houston Hobby Airport and Dallas Love Field. The shorter time to downtown usually cuts down the total trip time that is very valuable to the business travelers usually involved in the short-haul flights. The short-haul flights focus by Southwest did something innovating that most airlines had not considered before which was not directly competing with other airlines.

New startup airlines during the days after deregulation in the 1970's were looking to compete with the other airlines that were already established and to take some of their customer base. Southwest had a new strategy that chose to compete with an unlikely source, the car. Peter McGlade, who is the Vice President for Schedule Planning once said, “We want to entice people out of their cars. The car has always been our main competitor.” This was a very good strategy that chose not to compete with other airlines, but rather competed with an entire other industry. Instead of providing first-class seating, in-flight movies, or fancy meals Southwest provided customers with what they really wanted in short trips which was speed. Bypassing all of these in-flight amenities allowed them to lower their overall costs even further. As a result of this strategy Southwest placed themselves in a unique position between surface transport and airlines which no other airline had achieved. Southwest Airlines chose to concentrate on factors that lead people to choose between cars and flights. Since the early 1970's Southwest chose to separate themselves from the competition both in company operations and in company culture which have led to over 20 years of profitability which is unmatched by any other airline.

BARRIERS TO ENTRY

According to Michael Porter in his book *Competitive Strategy*, there are five forces affecting an industry: threat of entry, competitive rivalry, bargaining power of suppliers, threat of substitutes, and bargaining power of buyers. Following, is an analysis of Southwest's abilities to create entry barriers and the competition on its market niche.

Some of the industry trends originally created to presumably reduce traffic congestion and noise-control respectively, have largely favored big carries. Among them are: “slot controls” and “perimeter rules.” Slot controls where designed to control air traffic and manage gate occupancy, it sets hourly quotas on the number of take offs and landings in airports. As a result, it offers Southwest an advantage because small carriers without reservations are blocked form expanding into major markets. Perimeter rules, additionally, limits nonstop flights that exceed a certain distance traveling to and from La Guardia, Reagan National, and Love Field in Dallas, benefiting carries with a hub system. Based in Love Field, and having a hub system, Southwest has benefited from the introduction of perimeter rules resulting in being the biggest carrier out of the airport.

There are five factors that determine the threat of entry; capital requirements, economies of scale, switching costs, and brand value. In the airline industry capital is plentiful; as a result, Southwest faces the constant threat of new entrants. Economies of scale are limited since seating capacity is restricted. Frequent flier program has made switching costs harder and brand identity stronger for consumers, playing a major role in the industry and favoring large carriers such as Southwest. Small carries can only compete in price and because of high fixed costs, giving out "free" seats in the plane have a negative impact on profits.

After the deregulation of the airline industry, there were 60 new entries in the market, saturating the market. As a result price wars were and still are the major competitive tool used by airlines. Therefore, only the fittest could survive and today there are nine major players in the industry. Being the only profitable airline since its creation years, Southwest have a competitive advantage from all the rest.

In 1979, the Wright Amendment, named after future House Speaker Jim Wright of Texas, put limits on airlines' operations at Love Field in Dallas; these rules protected Dallas-Fort Worth and its major carriers, such as American Airlines, from competition. The Amendment limits the number of servicing cities out of Love Field to Arkansas, Louisiana, New Mexico, Oklahoma, Alabama, Kansas, Mississippi and Texas. As the home of Southwest Airlines, Love Field hosts the most potent source of competition in Texas. However, because of the Wright Amendment, competition between the two Dallas airports is poor. American and other airlines that use Dallas-Fort Worth are less inclined to operate flights out of Love Field, easing competition on Southwest. In turn, Southwest respond by staying out of Dallas-Fort Worth. It is estimated, according to Steven A. Morrison and Clifford Winston, writers for the Wall Street Journal, in their article *Foul Regulatory Weather Grounds Airline Competition*, Southwest's fares from Love Field are 15% higher than those from other airports it serves where competition is stiffer.

As a result of the Wright Amendment, slots controls and perimeter rules, the competition has decreased and has created barriers to entry, favoring Southwest and ensuring higher profits.

SUBSTITUTES AND COMPLEMENTS

With increased rivalry in the airline industry, Southwest airlines has been able to maintain low operating costs and efficiency using its regional point-to-point system. As a complement to its low cost and efficiency, ticketless travel was introduced in 1995 and allowed their customers to fly without the inconvenience of waiting in line to make reservations and purchase tickets. Ticketless travel has permitted Southwest to save time and reduce costs for paper and administrative fees enabling them to pass the savings to the consumers. Southwest's cost per booking via the Internet is about $1, and the cost per booking via a travel agent is between $6 and $8.[1] By offering the product directly to the consumer, Southwest has been able to avoid double marginalization through travel agents other intermediaries. By 1996, ticketless travel was being offered through the company website and recently has made a significant impact on ticketless sales. For the year ended December 31, 2001, approximately 85% of Southwest's customers chose the ticketless travel option, and approximately 40% of Southwest's passenger revenues came through its Internet site.[2]

Another complement of Southwest airlines is its award winning customer service. In 1992, Southwest was awarded the first annual Triple Crown Award for the best on time record, fewest complaints, and best baggage handling every month. This can be attributed to its point-to-point system and more non-stop flights offered relative to its competitors - approximately 75% of the Company's customers fly non-stop.[3] As a result of always being on time, unnecessary compensation for delays or cancellations can be minimized. Since its entrance, Southwest has provided 100% job security for all of its employees, even after September 11th, along with profit sharing and a 401K retirement plan. When a company is able to link employee's compensation with its success and productivity, then the employees have an extra incentive to perform above expectations. Consequently, Southwest continually achieves the highest aircraft utilization and employee productivity of any major U.S. airline, needing less than 25 minutes at the gate.[4]

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1 http://www.iflyswa.com/about_swa/press/factsheet.html#Reservations%20Centers
2 http://yahoo.marketguide.com/MGI/busidesc.asp?target=/stocks/companyinformation/ *busidesc&Ticker=L UV*
3 " "
4 http://www.iflyswa.com/about_swa/financials/swaar01.pdf

As a way to lock-in their frequent flyers, Southwest implemented their Rapid Rewards program. Unlike its competitors' frequent flyer programs Rapid Rewards compensates its customers with the number of flights in a 12-month period and not the number miles flown. While most carriers place restrictions on when and where its frequent flyers can use these rewards, Southwest states on an annual basis 97 percent of their seat inventory is available for Award Ticket travel.[5] Southwest also has a separate program for its frequent business travelers called SWABIZ. SWABIZ works similar in fashion to Rapid Rewards, awarding credit towards free flights, but gives the business an ability to view a log of all flights made for the past 12 months.

With few rivals in the regional point-to-point market, there are very few substitutes to flying Southwest. In competition with Southwest are other airlines with the same destinations and mobile transportation. Other airlines in direct competition with Southwest (depending on destination) such as American, US Airways, Delta Air Lines Inc. and Northwest Airlines have been unable to match, much less beat, Southwest with its lower operating costs and high efficiency. Southwest has been able to lead the price war and these major carriers have recently announced they would collectively slash $18.6 billion in costs, or 29% of their total expenses, to operate at the same level as Southwest Airlines.[6] Mobile transportation such as a bus or car would significantly increase the amount of time to arrival, but may be cheaper. The consumer should compare their options and focus on what is more important, to drive for hours or fly for just peanuts.

ECONOMIES OF SCALE AND INPUTS

The main inputs of Southwest Airlines include capital, labor, fuel, maintenance, agency commissions, aircraft rentals and landing fees. Of these, capital and labor are the most costly. There are only a few suppliers of most of these inputs, and there are no good substitutes for any of these inputs. There are two manufacturers that produce aircraft, and currently the aircraft manufacturing industry is very competitive. This is because the manufacturers are constantly under biding each other. This allows buyers to get better

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5 http://www.iflyswa.com/about_swa/customer_service_commitment/frequent_flyer.html pricing. Some airlines are in a position to have strong buying power, most of all ones that have just started up. Southwest Airlines does not have considerable buying power, because they are already locked into one of the Boeing airplanes. The switching costs for Southwest would be high if they decided to start buying from another aircraft manufacturer. Southwest has no genuine purchasing power on fuel, landing fees, or labor unions.

Fixed costs account for a larger percentage of the airlines total costs. One of the largest fixed costs in the airline industry is the cost of the airlines' fleet. A Boeing airplane can cost between 35.5 and 231.5 million dollars.[7] Because each model is specific to the purchaser's purpose, there is such a wide variance in the price of each plane. Some models provide you with only 85 seats while others hold up to 550 seats. Southwest currently, as of March 2002, has a fleet of 352 airplanes. If on average each plane costs 40 to 50 million dollars, then Southwest has a fleet inventory that costs close to 19 billion dollars. In order to lower its fleet costs, Southwest purchases the same family of airplanes, the Boeing 737. By purchasing the same family of airplanes, Southwest is capable of reducing both its maintenance and training costs. Southwest has put together multimillion-dollar training facilities where they can school both its pilots and mechanics on the Boeing 737, in a cost efficient manner. Airplane simulators can costs in the millions. It would be very costly to purchase simulators for each type of model that you carry in your fleet. If you consider there are 6 families of Boeing commercial aircraft and each family has on average 3.5 models, you could wastefully spend a lot of money on simulators. This is one example of how Southwest Airlines carefully manages all of their expenses in order to make profits. Southwest Airlines is also able to reduce it's the costs of replacement parts and the costs of excessive parts inventories. There is an advantage of maintaining a large parts inventory. By managing a large parts inventory you have the ability to order in bulk, which reduces individual costs, costs of cutting a purchase order and freight costs. On the other hand, it is expensive to allow parts to become obsolete or deteriorate. Items that include elements such as filters, gaskets and seals have very short shelf lives. It is critical that the items are

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6http://story.news.yahoo.com/news?tmpl=story&u=/dowjones/20021009/bs_dowjones/200210090149000055

managed appropriately in order to avoid deterioration. It is an advantage to Southwest Airlines to carry one airplane that has interchangeable parts in order to reduce costs.

Labor is another extremely high cost for airlines. Southwest Airlines employs more than 35,000 employees. Employee salaries, wages, benefits and employee retirement plans accounted for 36.7 percent of operating expenses, as of March 31, 2002.[8] Southwest Airlines has many unionized employees, the Teamsters union represents 1,300 of Southwest Airlines' mechanics[9]. Unions are one obstacle that almost always drives the cost of your product up. During August of 2002 Southwest Airlines began negotiations with a union that represented over 10,000 customer service and reservation agents[10]. Southwest was able to workout a deal that included stock options, a series of raises and some enhanced job benefits, all together they were able to keep their labor operating expenses low. Southwest was able to avoid issues like pensions and job security that were initially at the top of the union's list, and would have increased Southwest Airlines' operating expenses. Southwest hires between 350 and 360 pilots each year[11]. One way that Southwest is able to fight employment costs is by requiring that all new pilots have a B-737 type rating before they are eligible for hire. Southwest will interview potential pilots and select pilots that do not have a B-737 type rating, but they require that before Southwest hires them, they must complete a B-737 training course[12]. Southwest will provide these training courses to them, but it will cost each pilot between 7,300 and 8,000 dollars[13].

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[7] *Commercial Jet Prices*, Boeing, Online: www.boeing.com 11/10/02
[8] *SOUTHWEST AIRLINES CO (LUV)*, Quarterly Report (SEC form 10-Q), April 30, 2002, Online: biz.yahoo.com 11/10/02
[9] International Brotherhood of Teamsters Teamsters Airline Division, *Southwest Mechanics Ratify Historic Contract*, "Four-Year Agreement Passes as Sham Association Attempts Raid" November 8, 2002 Online: www.teamsterairmechanics.org 11/10/02
[10] IAM, *Latest Updates*, "District 142 Takes First Step To Amend Southwest Airlines Agreement" August 9, 2002 Online: www.goiam.org 11/10/02

[11] Swaine, Liz, *Careers In Aviation,* AVweb "Doing The Time To Make The Jump" Online: www.avweb.com 11/10/02
[12] *Southwest Airlines Flight Operations Department Information for Prospective Pilots*, Southwest Airlines, "Southwest Airlines New Pilot Requirements" Online: www.iflyswa.com 11/10/02
[13] Swaine, Liz, *Careers In Aviation,* AVweb "Doing The Time To Make The Jump" Online: www.avweb.com 11/10/02

Some scale economies that Southwest Airlines is able to benefit from are managerial economies, financial economies, marketing economies, commercial economies, transportation networks, and reputation. Here are a few examples of how Southwest Airlines can benefit from the economies of scale listed above. Southwest can split up management jobs and employ specialists to focus on specific departments. Southwest can hire teams that research specific targets, like the most profitable markets, Southwest can move them to a new city after the completion of each task. Southwest can benefit from the use of central corporate offices that handle all of their accounting. Because of its size, Southwest can borrow money from institutions at a much lower rate than a smaller firm. Southwest can also advertise on television and in national newspapers across a large population that is familiar with their product. Because Southwest has such a large fleet of 737s, they have the ability to buy replacement parts in bulk and gain larger discounts. Southwest also has a great reputation as a low-fare carrier. In every market that they enter they have an advantages over their competition before they even enter that market.

Southwest has been able to remain the only profitable airline in the industry due to its unique strategy to remain the cost leader. With its regional point-to-point routing system, Southwest has been able to focus on a different market niche. By differentiating itself from their competition in a variety of different areas, they have been able to keep new entrants in that market from becoming successful. Entry for another airline using the same strategy as Southwest would be extremely difficult today. Southwest had the advantage of being overlooked by most of the major airlines during its infancy because they were not seen as a threat at that point in time. By the time Southwest had become a large and successful airline, it was too late for the other airlines to react. With its low fixed costs, Southwest has been able to keep its rates the lowest in the industry and has recently forced the entire market to reduce their rates by 30% just to remain competitive. Southwest has enjoyed all of the benefits of the first mover advantage by entering the point-to-point system and adopting a non-threatening position against the major rivals. It would be very difficult for another company to duplicate Southwest's strategy because all of the airlines are on the look out for such business tactics.

Summary Financials

Southwest Airlines (LUV)

INCOME STATEMENT

Net Sales	
Dec-01	5,585.17
Dec-00	5,649.56
Dec-99	4,735.59
Dec-98	4,163.98

Cost of Goods Sold	
Dec-01	3,667.23
Dec-00	1,683.69
Dec-99	2,884.47
Dec-98	2,528.79

Operating Inc	
Dec-01	594.22
Dec-00	1,021.15
Dec-99	781.58
Dec-98	683.61

Pretax Income	
Dec-01	827.66
Dec-00	1,017.36
Dec-99	773.61
Dec-98	705.11

Net Income	
Dec-01	511.15
Dec-00	625.22
Dec-99	474.38
Dec-98	433.43

BALANCE SHEET

Assets

Total Current Assets	
Dec-01	2,520.22
Dec-00	831.54
Dec-99	631.01
Dec-98	574.16

Net PP&E	
Dec-01	6,445.49
Dec-00	5,819.73
Dec-99	5,008.17
Dec-98	4,137.61

Total Assets	
Dec-01	8,997.14
Dec-00	6,669.57
Dec-99	5,652.11
Dec-98	4,716.00

Liabilities and Shareholders' Equity

ST Liabilities	
Dec-01	514.57
Dec-00	108.75
Dec-99	7.87
Dec-98	12

Total Current Liabilities	
Dec-01	2,239.19
Dec-00	1,298.40
Dec-99	960.47
Dec-98	850.65

Long-Term Debt	
Dec-01	1,327.16
Dec-00	760.99
Dec-99	871.72
Dec-98	623.31

Total Liabilities	
Dec-01	4,983.09
Dec-00	3,218.25
Dec-99	2,816.33
Dec-98	2,318.08

Total Common Equity	
Dec-01	4,014.05
Dec-00	3,451.32
Dec-99	2,835.79
Dec-98	2,397.92

CASH FLOW STATEMENT

Net Cash Flows from Operations	
Dec-01	1,484.61
Dec-00	1,298.29
Dec-99	1,001.71
Dec-98	886.14

Net Cash Flows from Investing	
Dec-01	997.84
Dec-00	1,134.64
Dec-99	1,167.83
Dec-98	947.1

Net Cash Flows from Financing	
Dec-01	1,270.10
Dec-00	-59.47
Dec-99	206.43
Dec-98	-183.87

Key Ratios

P/E	45.55
Earnings Per Share (EPS)	0.63
Dividends Per Share (DPS)	0.02
Dividend Yield	0.12
Quick Ratio	1.05
Current Ratio	1.13
Return On Equity (ROE) Per Share	14.53
Return On Assets (ROA)	8.15
Return On Invested Capital (ROIC)	12.58

*in millions of USD