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HUB AND SPOKE VERSUS LOW-COST CARRIERS: HOW SOUTHWEST
ACHIEVED SUCCESS IN A MARKET DOMINATED BY NETWORK AIRLINES

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ABSTRACT

In the current domestic market, two types of airline structures dominate--hub and spoke networks and low cost carriers. After deregulation in the 1970s airlines were allowed to structure their networks however they chose. The modern hub and spoke system evolved from this time and became dominant in the market place, monopolizing air travel. However, in recent years, with the expansion of low cost carriers like Southwest, hub and spoke airlines are being challenged. This thesis will aim to answer the question, what makes Southwest profitable while other airlines struggle? The study begins by describing the overall landscape of the airline industry, then goes into a comparison between Southwest and USAirways. Finally, an explanation is provided regarding specific aspects of Southwest's business model that enable success in today's market and implications for the future of passenger airlines.

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Chapter 1

Introduction

Since deregulation in 1978, the United States airline industry has undergone tremendous changes and evolved into a complex network as airlines compete for market share and profitability. Focusing on passenger air travel and primarily on the domestic market, this paper will examine what factors allow airlines to succeed. Deregulation gave airlines the freedom to determine their own route structures, and the major airlines chose to create hub and spoke networks. These networks were created to promote efficiency and allow airlines to leverage their assets to maximize profitability. A goal of deregulation was to promote competition and benefit the consumer. However, the creation of hub and spoke networks restricted entry to the market for new carriers and allowed existing carriers to monopolize key airports and routes. Today, two types of network designs are common in the marketplace—hub and spoke and point-to-point carriers. Carriers that did successfully enter the market to compete with the hub and spoke carriers did so by operating low cost models based on a point-to-point route structure. They adopted a lower cost structure and focused on direct flights between city pairs as opposed to connections through hub airports. One carrier that has succeeded despite the dominating presence of major airlines is Southwest Airlines.

A low-cost carrier that now competes directly with the hub and spoke, Southwest has grown into a serious challenger to the older airlines, consistently outperforming them in terms of profitability. This thesis will examine why Southwest has managed such success, staying profitable when many network carriers struggle. What is it about Southwest's cost structure or expansion strategy that allows them to succeed in an increasingly competitive market? Beginning

with a historical analysis of the industry and a comparison between hub and spoke and point-to-point carriers, the discussion will focus on the advantages and disadvantages of each network design. Both types of networks will continue to coexist in the marketplace for the foreseeable future, but this analysis will center on what drives Southwest's profitability while carriers such as USAirways struggle to remain viable businesses. Both carriers began with regional service in Texas and the Allegheny Valley, respectively. However, by analyzing their separate strategies, including expansion, company organization and cost structure, one can develop an explanation for Southwest's success in today's market.

Chapter 2

Industry Background/History

Prior to 1978, the federal government economically regulated the airline industry under the Civil Aeronautics Board (CAB). This agency acted as a central planner, designing routes and controlling competition and entrance to the market. Under this regulation, all airlines were structured in a point-to-point manner, focusing on connecting city pairs. Proponents of deregulation believed that airlines would be able to more efficiently service the market if they could design their own route networks, rather than relying on the government. The CAB, in theory, could have been an effective designer of a network of flights, but did not take into account network design issues. According to economist Eldad Ben-Yosef in his book *The Evolution of the U.S. Airline Industry*:

“Planning under regulation like this could take advantage of positive network effects from both supply and demand sides and balance aspects of cost efficiency with market power. In fact, the dominant pattern of pre-deregulation wisdom was to largely ignore network effects and the related advantages to scale, scope, and size. It was believed that the industry lacks increasing return characteristics. The role of the CAB was mostly defined as protection of the airlines against “destructive competition” by limiting price competition and entry.” (Ben-Yosef, 2005)

While the airline industry remained under regulation, individual airlines had no control over their route structures, shy of exerting political influence over the CAB. The airlines, however, also enjoyed the protection from competition through the CAB. Although the potential for efficiency in regulation existed, the shift to deregulation occurred because it was believed that economic

gains would be better distributed if the market could regulate itself. Expectations were, "...that the free market mechanism would allocate routes better than regulation had. It was expected, in particular, that the threat of new entry would be sufficiently strong to discipline fares" (Ben-Yosef, 2005). While this paper will focus on the cost structures of airlines rather than pricing strategies, maintaining reasonable fares for the consumer was one motive for deregulation. If the airlines could efficiently design networks allowing them to minimize costs, and if they were faced with the threat of competition, then they would offer fair prices to their consumers.

Another key reason for deregulation was the Theory of Contestable Markets. A more realistic application of the Theory of Perfect Competition, this economic theory argues that if competitors can enter and exit the market, regulation is unnecessary. The Theory of Contestable Markets states that:

"Formally, a market is defined to be perfectly contestable if no price in that market can be in equilibrium when its magnitude is such as to enable an entrant to undercut it and nevertheless earn a profit. Thus, a market that is protected by substantial entry barriers is clearly not contestable, because the barriers permit an equilibrium involving monopoly prices and monopoly profits." (Bailey and Baumol, 1984)

Many believed that a deregulated airline industry would fit this theory, and that the policies of the CAB were serving as the only key barriers to entry. The CAB controlled which airlines could enter and exit a market, therefore protecting the incumbent airlines from competition.

Deregulation was seen as a positive for consumers, allowing competition and free markets to reduce costs. However, in retrospect, airlines might not have been a prime application of this theory.

On one hand, the airline industry could be considered a contestable market. Giving airlines the benefit of structuring their own routes would allow them to design efficient networks and allow for fair competition. All airlines offered a similar product, with aircraft being

seemingly mobile assets, and according to the theory:

“...the more mobile the capital and the smaller the sunk costs involved in an industry, the more that industry approaches perfect contestability. The major component of capital equipment in the airline industry, the airplanes themselves, can be readily moved from market to market.” (Bailey and Baumol, 1984)

Although the mobility of aircraft contributes to the contestability of the airline industry, major sunk costs were not taken into account. For example, while airplanes themselves are mobile, a carrier still has costs on the ground associated with takeoff, landing, and rights to gates at particular airports. Maintenance and labor costs also are key components of total airline costs. When the threat of competition became a reality, incumbent airlines altered their strategies to make these fixed costs key barriers to entry from competitors. As airlines adjusted to the new market, “Price was by no means a single or even a major decision variable for the incumbent airlines. Reshaping the market into complex integrated hub-and-spoke systems with regional monopolistic bottlenecks, was” (Ben-Yosef, 2005). Once hub and spoke networks dominated the post-deregulation industry, fixed costs and sunk costs became even more important and served as barriers to entry to new airlines.

The creation of today’s traditional hub-and-spoke structured network was a direct result of deregulation. Without the guidance of the CAB, airlines were free to design their own networks. The hub-and-spoke design prevailed due to its efficiency and utilization of economies of scope and density. For example:

“Hub-and-spoke offered the opportunity to drastically expand the network scope—with the same fleet size inherited from former regulated times—particularly into markets too small for non-stop services, or to maintain the original network scope but with a much smaller fleet”. (Goedeking, 2010)

After deregulation, major airlines had to prepare themselves for the possibility of competition.

The solution was to leverage their network capacity and resources to create a difficult to enter hub-and-spoke market. In 1981, American Airlines made the move to create a hub in Dallas, and became the airline credited with first moving towards the hub-and-spoke system. “The move dramatically increased production, while enabling a different deployment of labor and other fixed inputs. It affected average costs and revenues but accommodated rigid labor and other fixed cost structures” (Ben-Yosef, 2005). When faced with the threat of competition based on price, the network carriers had to do what they could to remain competitive. Airlines at the time had a significant amount of fixed costs and union labor was expensive. Newer airlines could undercut them on certain metrics, but would struggle to match them in terms of network capacity.

Because deregulation allowed for competition in the markets, new carriers did emerge to compete with older hub-and-spoke airlines. Low cost carriers emerged as challengers to the hub-and-spoke carriers when they:

“...successfully designed a focused, simple operating model around non-stop air travel to and from high-density markets. On the other hand, the FSC [Full Service Carrier] model is cost-penalized by the synchronized hub operations (e.g. long aircraft turns, slack built into schedules to increase connectivity) that implicitly accept the extra-time needed for passengers and baggage to make connections.” (Cento, 2009)

Low cost carriers like Southwest Airlines, found a way into the market by capitalizing on a competitors’ key weakness. Their networks are designed around non-stop service rather than connections through major hubs. In a later chapter, this paper will go on to present Southwest’s business model in detail and how exactly their network structure contributes to their success. However, generally speaking, low cost carriers began to compete against incumbent hub-and-spoke carriers during the period of deregulation. A key challenge to their entry included not being able to obtain airport space. Hub-and-spoke airlines held onto market share because the competition:

“...may not have access to the groundside or airside capacity that is necessary to compete on any route to or from the hub. The pattern of geographic distribution of airports, as well as the distribution of market power of major airlines over potentially competing hub airports, may preclude entry or be enough to ward off significant threats by competitors against the dominant hub.” (Ben-Yosef, 2005)

With the presence of new competition, incumbent carriers had to take advantage of their power and influence to remain viable businesses. The Deregulation Act intended to allow competition, but in reality, the characteristics of the industry allowed hub-and-spoke airlines to drive competition from the marketplace. Southwest Airlines has been the premier success story for low cost carriers, and their expansion did not take off until the 1990s-2000s. Although the fixed costs and barriers to entry make the airline industry into the oligopoly that it is today, the presence of both hub-and-spoke and low cost carriers will continue in the marketplace. These models will coexist because both offer unique competitive advantages and serve different market segments.

Chapter 3

Research Methodology

This study focuses on both the airline industry's past and present states, while looking at potential implications for the industry's future. Reviewing past articles and literature on the history of the airline industry since deregulation provides background information necessary to understand the competitive landscape of the marketplace. Following the initial background of the industry are individual analyses of specific airlines—Southwest Airlines and USAirways. Research into their company histories, expansion strategies, and cost structures all contribute to the goal of determining what makes Southwest profitable while incumbent hub-and-spoke carriers struggle. Analysis of revenue, cost, and employee and aircraft utilization will further show the trend of Southwest's success while USAirways faced bankruptcy and other challenges to remain financially stable. This paper will not go into pricing strategies or yield management practices of these airlines, but will rather focus on cost structures and how each airline manages its costs. Much of Southwest's competitive advantage stems from its ability to offer lower costs than hub-and-spoke carriers like USAirways. For the purposes of this paper, one can assume that the lower fares result from the Southwest's managing to keep costs lower than its competition. Finally, part of the methodology was to interview an airline executive. The interview was conducted with Charles Thomas, former Director of Financial Analysis in the Operational Performance Department at Southwest Airlines. The interview guide can be seen in Appendix A.

Chapter 4

Hub and Spoke Versus Point-to-Point Carriers: Advantages and Disadvantages of Each Network Structure

In today's airline industry, both traditional hub and spoke carriers and point-to-point carriers exist in the market. This coexistence occurs because each type of carrier has unique advantages and disadvantages, allowing them to target different market segments and generate profits in different ways. One of the primary differences between the two network types is their respective cost structures. Hub and spoke networks need to cover more fixed costs whereas low cost, or point-to-point, carriers have more variable costs. Fixed costs include more costs on the ground and investments at their hubs, whereas variable costs change depending on number of flights and ticketed passengers. Both types of carriers manage expenses in different ways, and their network designs lead to certain cost based advantages and disadvantages. In recent years, it appears that low cost carriers have an advantage. Although in the long run, both should survive in the marketplace because despite some head to head competition, they ultimately capture different segments of the market.

Early in the post-deregulation era, hub and spoke carriers (or incumbent carriers) became very monopolistic, and entry into the marketplace for new carriers was difficult. However, one key advantage of the new low cost carriers was their access to cheaper labor.

“These airlines were free from contracts with labor unions, and airport authorities and other pre-deregulation commitments that implied high overhead costs and structural rigidities to incumbent airlines. Unemployed crews, mechanics, and other airline personnel could be hired at cheaper rates. This economic environment lured a new group

of airlines that enjoyed a different cost structure and an operational freedom not easily available to the major incumbents.” (Ben-Yosef, 2005)

In order to successfully enter the market, new airlines needed to differentiate themselves from their competition. One way to do this was by developing a completely new cost structure. While older carriers may have had stronger brands and more access to gates at airports, the flexibility of newer carriers allowed them to compete. Sunil Chopra of Northwestern University writes, “Employee-related expenses, including salary and pensions, are by far the highest cost factor for any airline and account for over a third of all costs” (2006). Managing labor costs, therefore proved to be essential to airline profitability, and was currently an advantage of newer, low-cost carriers. In addition to a reduction in labor costs, Chopra goes on to discuss how low cost carriers had the advantage of employing fewer employees per “available seat mile” or departure. With a reduced number of workers, low cost carriers had lower payroll expenses and translated these savings into reduced prices for consumers.

Another advantage of low cost carriers was the reduced maintenance costs they faced. Low cost carriers incurred lower maintenance costs for a variety of reasons. An August 2011 Federal Aviation Administration report explains:

“LCC’s [Low Cost Carriers] maintenance activity is lower because these carriers utilize newer aircraft. According to calculations using the Aircraft Inventory data from BTS [Bureau of Transportation Statistics], the average age of LCC’s aircraft was 9.4 years versus 14.8 years for network carriers in 2009.” (*The Economic Impact of Civil Aviation on the US Economy, 2011*)

Newer aircraft helped reduce maintenance costs. However, the question remained as to how long this would be able to remain a competitive advantage. Many low cost carriers were newer airlines that have recently expanded, and that could impact the age of their fleet.

In addition to maintenance and labor costs, the network structures themselves lead to

inherently different strengths and weaknesses for hub and spoke versus low cost carriers. For example, hub and spoke carriers have an advantage due to economies of scope and economies of density. Hub and spoke airlines connect more cities with fewer flights due to economies of scope. It is cheaper to offer a connecting flight through a hub airport than offering separate flights between each destination city. Airlines were able to utilize their current assets in a more efficient way to maximize profits. Adding another connection or “spoke” does not increase costs as much as adding a new city pair destination. The airline can also serve these markets using existing aircraft due to their network structure, relying on fewer aircraft than low cost competitors.

For example, in December 2002, Southwest, the sixth-largest airline in the U.S., served 68 cities in 31 states with 375 aircraft, mostly by linear point-to-point service.

USAirways, the seventh-largest airline in the U.S., served 177 cities in 38 states plus 23 international cities with 360 aircraft. USAirways operated 15 fewer aircraft in its complex network to serve 132 more cities. (Ben-Yosef, 2005)

Network structures do have certain advantages over point-to-point systems because they can operate flights through hub airports and consolidate passengers and routes. They can service more cities using less aircraft since they are constantly connecting through hubs rather than travelling between individual city pairs.

Economies of density also come into play, because hub and spoke airlines leverage their network structures to fill flights and to cover the fixed costs of operating their networks. Once a flight is scheduled, the costs to operate it are the same regardless of whether or not it is full. By filling as many seats as possible, airlines capitalize on economies of density. Hub and spoke carriers have an advantage here because of their network design with multiple destinations from hub airports. “In point-to-point networks...load factors are only affected by traffic on a single lane. In contrast, in hub-and-spoke networks...every possible destination contributes to traffic on

each lane” (Chopra, 2006). This advantage of hub and spoke carriers stems directly from the setup of their flight network and route structure. They can fly more people on fewer flights and use their network structures to reach more markets at a lower additional cost. Chopra goes on to argue that the load factor advantage is even more important than owning fewer aircraft because, “...lease and plane ownership costs in the U.S. represent only about 3% to 4% of an airline’s operating costs, whereas labor and fuel contribute over 50% of the costs...Labor and fuel costs increase each time a flight is added irrespective of the number of passengers flying” (2006). This statistic shows the importance of keeping flights as full as possible in order to maintain profitability. It also relates to the advantage low cost carriers have in terms of lower labor costs. Hub and spoke carriers may have higher load factors, but the lower labor costs of low cost carriers keep both structures competitive in the marketplace.

For hub and spoke carriers, their structure has provided them with competitive advantages over the years, but also results in challenges. With such a complex structure comes an increased cost. Low cost carriers developed a completely different business model and:

“...the LCC [Low Cost Carrier] model can operate at 49 percent of FSC [Full Service Carrier] costs. In particular 37 percent out of a total 51 percent of costs difference can be attributed to explicit network and airport choices...A remarkably small proportion (13 percent) of the cost differential is product/in-flight service-related.” (Cento, 2009)

While hub and spoke carriers leverage their networks to create competitive advantage, low cost carriers capitalize on a simplified business model aimed at keeping costs to a minimum. They do not operate the same complex model with connections and all of the additional costs associated with that. Goedeking lists these costs, which include underutilization of aircraft, crew, and staff on the ground since these airlines are more vulnerable to delays. Delays have a domino effect that will impact many flights and resources associated with them (2010). The complexity of the network hurts operational efficiency and hinders the airline from operating at its full potential.

Low cost carriers entered the market as a result of this key weakness of hub and spoke carriers. They began offering non-stop flights between “spoke” cities and did so at a lower cost than hub and spoke carriers could offer with connecting flights.

“The LCC business model assumes that eliminating all the complex costs mentioned above will result in significantly lower costs, a more aggressive price point, and a boost in demand. Hence, LCCs attack hubbed networks where they are most vulnerable: by serving O&Ds [Origins and Destinations] non-stop, which otherwise require transfers in hubbed systems”. (Goedeking, 2010)

Although hub and spoke carriers dominated the market for many years, there remained room for more competition. Deregulation helped hub and spoke carriers by allowing their network design to flourish, but it also left them vulnerable to competition. Demand for direct flights increased, and consumers would rather fly directly between cities than connect through a hub airport.

Simplification has been a key advantage of low cost carriers and has allowed them to offer these direct flights in the face of hub and spoke competition. Through strategic decisions such as a fleet of one type of aircraft and standard service for all passengers:

“LCCs leverage the standardization of their production platform (a uniform fleet) to achieve similar or superior unit cost advantages and to permit simpler and more efficient procedures...Passengers opting for the non-stop service of an LCC benefit from the convenience of a non-stop service and a more aggressive fare, but must accept the lack of differentiated service concepts on the ground and on the flight due to LCC standardization.” (Goedeking, 2010)

Standardization of both aircraft and service has been important advantages for low cost carriers. These choices differentiate these airlines from their competition and allow them to service their customers at a lower cost than hub and spoke carriers. Especially in recent years, passengers have been willing to accept a slightly lower level of service for a direct flight at a cheaper price. As

previously stated, service offerings are not the key cost differential, they still play a role and allow low cost carriers to offer their services for a lower price than hub and spoke airlines. In addition to the standardization of aircraft, low cost carriers also capitalize on reduced gate fees at secondary airports and high utilization of aircraft. Therefore:

“...the aircraft of an LCC is in the air, on average, more hours a day compared with the traditional carriers. This generates higher productivity of aircraft and crew. Moreover, lower maintenance costs, due to simpler fleets and lower landing/ground handling fees negotiated with secondary airports without congestion problems, also cause relevant differences...”(Cento, 2009)

More efficient utilization can happen in a less complex network structure because each flight does not rely on another aircraft making a connection. The inefficiencies previously discussed for connecting flights do not apply to low cost carriers so they can achieve better utilization of their aircraft. Hub and spoke carriers may have an advantage if load factor is considered more important than utilization, but the success of low cost carriers proves that factors such as utilization still represent a significant part of airline costs. Low cost carriers also began operating in secondary airports while hub and spoke carriers dominated major airports. This allowed them to keep costs down while beginning to access similar markets to their competition.

Both types of airlines offer opposite advantages and disadvantages. Aspects that make hub and spoke airlines successful are disadvantages of low cost carriers and vice versa. Table 1 highlights a few key differences between the two models. Immediately following deregulation, hub and spoke airlines dominated the market. In recent years, low cost carriers like Southwest have achieved more success, especially in comparison with their competition.

Hub and Spoke	Point-to-Point
High fixed costs	More flexible/variable cost structure
Monopolistic—dominated major airports	Found niche markets—focus on secondary airports
Higher labor costs—more employees per seat mile	Lower labor costs—fewer employees per seat mile
Varied types of aircraft to service different sized markets	Uniform fleet to decrease maintenance costs
High connection costs at hubs	Primarily direct flights decrease network complexities
Fewer aircraft to connect more cities	More aircraft to connect fewer cities

Table 1: Comparison of Carrier Network Structures

Chapter 5

Analysis of Southwest Airlines

Since its initial flights in 1971, Southwest Airlines has grown to become the dominant low cost carrier in the United States. Furthermore, it is one of the most profitable domestic airlines. Founded as an intrastate carrier in Texas, Southwest has expanded greatly around the country over the past forty years, challenging incumbent airlines and creating lower airfares for passengers nationwide. Focused on a point-to-point route structure, with simple service and high utilization of planes, Southwest's business model has changed the landscape of the airline industry. Overall, their business model has made them successful in an intensely competitive market, and has allowed them to capture the majority of market share for short flights. They utilize their low cost structure as well as their focus on their employees and customer service to achieve maximum success.

Southwest began in Texas, servicing the cities of Dallas, Houston and San Antonio. Flying out of Love Field in Dallas, the airline began service in 1971 to both Houston and San Antonio, offering one-way fares as low as \$20. Later that year, the triangle was completed, and customers could fly between Houston and San Antonio. While most other airlines fell under the regulation of the Civil Aeronautics Board, Southwest could set its own prices and routes because it was strictly an intrastate carrier. As a result, "...SWA could offer fares below the rates set by the CAB, and yet still operate profitably because of high volume, low costs, and high utilization of capital" (Tierney,2008). Their strategy of making money by capitalizing on short flights between densely populated areas began during the 1970s and remains similar even after many other airlines opted for hub and spoke structures in the post-regulation era.

By the end of 1973, the airline had earned a profit, and has remained profitable every year to this day. They faced legal battles in their initial years as competitors wanted them to be forced to abandon Love Field in favor of Dallas Fort Worth, the area's major airport. After deregulation in 1978, Southwest planned to service out of state destinations from Love Field. However, Congress passed the Wright Amendment, which limited Southwest to only offering flights from Love Field to Texas's border states. "The Wright Amendment was put in place by Congress to protect the Dallas-Fort Worth Airport from Southwest's low-fare business model and to ensure that American Airlines and DFW could compete in a changing business environment" (Lauer,2010). Even with regulations in favor of older airlines and major airports, Southwest still managed to achieve profitability by adapting to the regulations. In recent years, they have spent considerable effort fighting the amendment, reaching compromises with American and DFW. By 2014, this law will be completely repealed.

Southwest continued their expansion regionally throughout the late 1970s and early 1980s. In 1980, according to the company website, Southwest achieved record growth for the time, with a "...28% increase in revenue passenger miles and a 20% increase in passenger boardings to 5,976,621 compared to 1979 results. The load factor for the year was 68.16%" ("Our History - By Date - Southwest Airlines Newsroom"). Even in its early years, Southwest posted profits and expanded its numbers of passengers. It also maintained a high load factor, typically seen as an advantage for hub and spoke carriers.

In the 1980s, Southwest expanded into California, St. Louis, and Chicago, and they have continued expanding ever since. They remain focused on their strategy and have found success where other airlines have struggled. "...it was not until the early 1990s recession and industry downturn that Southwest began expanding out of the Southwest and capturing national attention. While the rest of the industry lost an estimated \$10 billion between 1990 and 1993 and underwent a contraction in capacity, Southwest continued its steady growth." (Rhoades, 2006) In 1993,

Southwest began servicing the east coast through Baltimore/Washington International.

Traditional airlines had been seen to dominate the marketplace with their hub and spoke network structure, but Southwest's consistent expansion success over the years is worth noting.

Southwest emerged from this crisis as a strong, profitable airline. They even acquired Morris Air at the end of 1993. This airline was based in Salt Lake City and had a similar business model to Southwest. Morris Air even used the same Boeing 737 aircraft that comprised Southwest's entire fleet. Adding twenty-one aircraft and fourteen new destinations in the west and northwest regions of the country, "Southwest's purchase of Morris Air showed its competitors that it was emerging as more of a national company than its regional name implies" (Lauer,2010). During these years, many airlines struggled to remain in business. Pan American failed to make it, and TWA, Continental, and America West all reorganized under bankruptcy. Southwest's success highlights the long-term viability of their low cost model.

In the post-9/11 market, Southwest remained more profitable than their hub and spoke competition due to their ability to keep costs low. "During 2001, arguably one of the worst years in United States aviation history, Southwest remained profitable, earning \$511.1 million on revenues of \$5.55 billion. Only two other airlines in the United States were also profitable in 2001: JetBlue and AirTran" (Flouris and Walker, 2005). Southwest's variable cost structure gives it the opportunity to be more flexible and make changes in the face of adverse market conditions. It also has lower costs, allowing it to remain profitable even if revenue decreases.

Southwest continued expansion to cities around the country in the 2000s. They remained true to their point-to-point network, typical of low cost carriers. In 2004, they expanded their service into Philadelphia International, slightly different from their typical entry into secondary airports. Traditionally opposed to entering hub airports:

"...the carrier's recent expansion into Philadelphia (a USAirways hub) indicates that this long-held market selection criteria has also changed...Nevertheless, it is important to

stress that Southwest's network strategy is still quite different than that of a typical hub-and-spoke carrier. Whereas most hub-and-spoke carriers grow their networks by expanding the number of destinations served from their main hubs, Southwest has been leveraging its network by connecting the existing cities within its network." (Goedeking, 2010)

A key aspect of Southwest's strategy had been flying out of secondary airports to avoid congestion and high gate fees. Over the years, they have grown from an intrastate to a regional to a national carrier. In order to reach more cities and compete in major markets, they have to fly into several major airports. Once they enter these airports, they compete directly with major carriers on the same routes, at a better price, often taking market share from carriers already there. However, as they grow and expand into new cities, they maintain a point-to-point structure.

Although Southwest does have airports with more flights than others:

"...arguably the most successful airline since deregulation – Southwest – has explicitly avoided adopting a hub-and-spoke route network. For example, while Southwest's top three airports collectively accounted for roughly 18% of its aircraft departures in 2001, Northwest's top three airports accounted for 52% of its domestic departures and United's top three airports accounted for 43% its domestic departures." (Boguslaski et.al., 2004)

As Southwest expands, they naturally will have more flights out of certain airports and have to fly from other airlines' major hubs. However, they have not altered their business model in any way to become more like a traditional hub and spoke carrier.

Southwest has grown considerably during the past few years, but their expansion is calculated and in line with their corporate strategy. When entering a new market:

"Southwest is known for choosing short and medium haul markets which generate sufficient O&D [origin and destination] passenger traffic to support high frequency, point-to-point service. These types of markets allow Southwest to exploit its comparative

advantage in quickly deplaning and boarding passengers, thus maximizing aircraft and labor productivity, which in turn results in significant unit cost advantages. Moreover, high flight frequency is attractive to travellers because it allows for scheduling flexibility.” (Boguslaski et.al., 2004)

Southwest’s expansion strategy has centered on finding markets with enough passengers to generate enough revenue and to capitalize on economies of density. As they added more city pairs, they kept their focus on their strengths as a company—quickly turning around flights, maximizing productivity, and keeping their costs to a reasonable level. Throughout the 1990s and 2000s, Southwest grew by adding origin and destination cities and connecting more markets across the country.

Growth has been an integral part of the Southwest business model ever since they established themselves as a competitive airline. After the initial years, Southwest has maintained an, “...average annual rate of between 10 and 15 percent. Maintaining this level of growth allows Southwest to spread capital investments such as aircraft, facilities, etc. over a longer period of time. This has allowed them to avoid the huge debt burden that plagues many of its competitors in the airline industry” (Rhoades, 2006). Throughout the history of Southwest, the airline has grown from a small regional carrier to a major domestic airline. Their initial growth strategy involved entering new markets and expanding into different regions of the country. By this point in time, Southwest has limited opportunities for new markets and new regions to connect. The new direction for Southwest involves leveraging their current network to offer more connecting itineraries. According to Charles Thomas, former Director of Financial Analysis in the Operational Performance Department, the growth opportunities for Southwest during the past five years and into the future will be in choosing which itineraries to sell to customers. Their current network of flights could potentially allow for several thousand options for connecting flights. This would allow Southwest to continue its focus on growth, but Thomas highlights that they will

need to achieve a balance of adding revenue without putting strain on their network.

In addition to focusing on growth, flexibility has been crucial to Southwest since the beginning, especially as they faced financial restrictions as a startup airline. In 1973, they needed to sell one of their aircraft, and departing on time required a ten-minute turn around time at the gates. “Achieving the ten-minute turn required a true team effort on the part of Southwest employees. Southwest soon decided that there was no room for rigid job descriptions, functional hierarchies, or the professional pecking order that existed between all of the groups responsible for flight departure – pilots, flight attendants, customer service agents, baggage handlers, etc. If it needed doing, anyone and everyone was expected to pitch in to see that it got done” (Rhoades, 2006). Early on, Southwest realized the need for working efficiently to accomplish their goal of on-time departures. The team focus became a critical component of Southwest’s corporate culture and vision for the company.

Southwest prides itself on taking care of its employees as well as providing outstanding customer service. Prominently displayed on the company’s website is their mission statement. “The mission of Southwest Airlines is dedication to the highest quality of Customer Service delivered with a sense of warmth, friendliness, individual pride, and Company Spirit” (“About Southwest”). Southwest’s mission statement describes their commitment to customers, and as described in Rhoades’s study, “does not talk about profitability, market share, or superior returns to shareholders; it talks about people” (2006). Their focus on people, both customers and employees, has helped distinguish them among other airlines, and have contributed to their history of success. The corporate culture of Southwest has been a defining characteristic of the business. Even now that the company has grown tremendously:

“In a company of thirty-five thousand employees, positive values that incorporate fun, love, hard work, service, and egalitarian principles can have a powerful effect on keeping people working together toward the same goals...These basic ideas have helped to instill

an entrepreneurial spirit of caring and creative cooperation among Southwest's people.”

(Lauer,2010)

Many reports and studies have covered Southwest's business model, and facts are publicly available regarding its history of growth and expansion. When analyzing their business, their corporate culture and values are essential components of the discussion, as well. Their focus on people contributes to their business model just as their choice of airports and design of their network.

After an initial historical analysis and glimpse into the company strategy, one can understand the defining characteristics of Southwest Airlines. The following chapter will focus on USAirways, entering into an analysis of the other prevalent type of airline: hub and spoke. After examining an example of the competition, the focus shifts back to Southwest. Upon studying its history, strategy, and values, what factors are most important to the profitability of the airline?

Chapter 6

Analysis of USAirways

While Southwest exemplifies a low cost airline with a point-to-point network structure, USAirways represents the traditional hub and spoke network carrier. The airline serves as an example of a legacy carrier from whom Southwest is taking market share. Prior to deregulation, all airlines faced restrictions from the federal government regarding routes and pricing. After deregulation in 1978, the hub and spoke structure emerged. USAirways has followed this model and expanded by leveraging this structure. This chapter will cover a historical analysis of USAirways as an airline and end with the current issues facing them as the merger with American moves forward. While there is room for both hub and spoke and low cost carriers in the market, the issues currently plaguing USAirways do not impact Southwest in the same way. An understanding of the USAirways structure allows for greater understanding of the contrast between USAirways and Southwest.

USAirways began operating under the name USAir in 1979, one year after deregulation and was the product of mergers of several smaller airlines. Small, regional airlines that would later become USAirways began passenger service in the late 1940s. With Piedmont Airlines in 1948, All American and Pacific Southwest Airlines in 1949, the foundations for the future USAirways was established. In 1953, All American became Allegheny Airlines, and later merged with Lake Central in 1968 and Mohawk Airlines in 1972. Allegheny provided service to the Western Pennsylvania and Eastern Ohio region, and the acquisition of Lake Central gave their network more destination cities in the Midwest. Mohawk covered the New England part of the market. By the time deregulation occurred, Allegheny had grown considerably through mergers

and acquisitions. In 1979, the name change from Allegheny to USAir occurred, "...to reflect its expanding network, including post-deregulation entry into Arizona, Texas, Colorado, Florida and later, California" ("USAirways Chronology"). From the beginning USAirways grew through mergers, expanding across the country by acquiring other airlines that serviced different markets.

Deregulation encouraged the hub and spoke system, as local airlines became part of larger network carriers. While Southwest was expanding its point-to-point network gradually in its early years:

"Several local service airlines entered deregulation with smaller but quite developed hubs and reacted to deregulation by expanding and strengthening their regional dominance (Western in Salt Lake City, Republic in Detroit and Minneapolis, US Air in Pittsburgh, Piedmont in Charlotte, and Ozark in St. Louis). These airlines were acquired by major airlines (or merged) in the quest for extending networks and increasing hub power (Western was acquired by Delta, Republic by Northwest, and Ozark by TWA. PSA, Piedmont, and US Air merged)." (Ben-Yosef, 2005)

Mergers and acquisitions were the dominant airline growth strategy of the time. It was believed that consolidating hubs and capitalizing on economies of scale were the best ways to manage costs. USAir continued growing by acquiring Piedmont and Pacific Southwest in the 1980s. In 1989, the Piedmont-USAir merger was the largest in airline history to date. "The merger brings with it Piedmont's international routes as well as its Charlotte, Baltimore, Dayton and Syracuse hubs. Baltimore and Charlotte remain hubs. The merger also brings USAir's first wide body jets, the Boeing 767-200ERs now used on its transatlantic and some transcontinental routes" ("USAirways Chronology"). As USAir grew through mergers, they accepted new hubs and integrated new aircraft into their fleet. The variety of aircraft allows them to fly both short and long haul flights, but a higher cost structure is also associated with this model. Throughout the 1990s, USAir continued international expansion and officially changed its name to USAirways in

1997. USAirways international growth fits with the trend of major airlines in the 1990s. “A new business model developed, characterized by a complex, multi-hub, global-network system. Capturing dominant domestic market shares provided high-density feed into the complex high-fixed cost, high-frequency network system” (Ben-Yosef, 2005). Low-cost carriers like Southwest kept their business models simple, but network carriers such as USAir focused on integrating multiple hubs across the US and across countries. The complex structures were intended to promote revenue by flying to more destinations and capturing more passengers at a marginal cost. However, going along with this is an inherently higher cost structure. In a competitive economy, customers are unwilling to pay higher prices for the services provided on network carriers. The cost structure, among other factors, influences prices, which could represent one reason for recent struggles of USAirways.

The 1990s brought about challenges for all airlines, but the industry faced even more difficulties after the September 11 attacks in 2001. This crisis was a challenge for the entire airline industry, but USAirways in particular suffered during this time. Southwest survived September 11 without releasing any employees, but, “USAirways's leaders conducted the highest level of layoffs in the industry, a 24% reduction compared to the industry average of 16%” (Gittell et.al., 2006). When facing a decrease in revenue from a negative demand shock such as the one that occurred after September 11, the airlines had to develop strategies to stay viable. Many airlines laid off workers, but USAirways layoffs were considerably higher than the rest of the industry. Southwest followed the opposing strategy and chose to take serious financial losses during the post-9/11 period. Several reasons could be given for why USAirways laid off so many employees during this time. Gittell’s study suggests that the strategy of senior leadership valued financial savings over treating their employees well, and notes that USAirways currently had, “the highest operating costs of any major airline in the U.S. industry, at 15.4 cents per seat mile” (Gittell et.al., 2006). At this time, industry average was 9 to 11 cents per seat mile, and

Southwest's costs were 7.7 cents per seat mile. Southwest's low cost structure allowed them to absorb losses in revenue in the post-9/11 period. The high operating costs of USAirways and other major carriers made it more difficult for them to take these losses, forcing them to cut jobs.

In addition to having higher operating costs, USAirways finances their business differently than Southwest. Southwest managed to grow at a steady rate with low debt and kept cash on hand to manage expenses. However:

“USAirways, like other U.S. airlines, had taken on high levels of debt over the years, responding to pressures from Wall Street. At the time of the 9/11 attacks for example, the airline had incurred almost \$8 billion in debt obligations and had lost money for eight straight quarters. Wall Street analysts complained publicly about the high costs of labor contracts at USAirways, and the airline's strategy for coping with these financial pressures had been to borrow more money from sources such as J.P. Morgan Chase (\$71 million), Wilmington Trust (\$50 million), and EDS (\$47 million; CNN Money, 2002). High debt levels coupled with high labor costs led to severely restricted financial flexibility when the 9/11 crisis occurred.” (Gittell et.al., 2006)

Because USAirways had such high debt and continued borrowing to remain in business, they had few options when their revenues decreased. Again, the high operating costs hindered major airlines during this time and made them unable to respond like their low cost competition. In general, passengers were becoming more price-sensitive to airfares, fuel costs rose, and debt issues continued beyond the immediate aftermath of September 11.

In 2002, USAirways filed Chapter 11 bankruptcy, emerged in 2003, but had to file again in 2004. In 2005, USAirways emerged from bankruptcy and merged with America West. This merger provides another example of how mergers and acquisitions were essential to the growth of the airline. At this time, the merger was essential to their reorganization and exit from bankruptcy. Questions were raised during the time of the merger regarding whether it would be

successful. In an *Associated Press* article immediately following the final approval for the merger, public policy professor and airline industry expert Kenneth Button expressed concern for the success of the merger.

“He also said merging two airlines with different cultures and business practices can be more difficult than anticipated, even though the airlines are a good fit in terms of routes - matching America West's east-west routes with USAirways' north-south routes.

‘The big problem with US Airways all along is that it's a collection of smaller airlines that merged’ into a hodgepodge of routes and fleets, he said. ‘Adding another airline, it will be interesting how they're going to handle it.’”(Barakat, 2005)

During this period, the entire airline industry was going through a difficult time, with rising fuel prices and softer demand. USAirways chose to merge yet again with another airline to remain a viable business. Today, we see that USAirways remains a viable airline, despite industry challenges. However, Button raises important concerns when any two companies merge. From a financial and operational perspective, it might make sense, but the intangible costs must also be taken into account. Growth through mergers does not allow airlines to select their own optimal route structure, and combining two corporate cultures can also result in problems for the company. The merger was met with initial success as the company posted a profit for the first two quarters of 2006. The airline attempted to continue its growth through mergers by offering to buy Delta, but Delta did not accept the bid.

The years of 2007 and 2008 brought more international expansion for USAirways. A March 2008 *Aviation Daily* article focused on the opportunities available to USAirways through international expansion. Currently, “Twenty percent of USAirways capacity flies overseas, while international ASMs [Available Seat Miles] are at the 39% level at other network carriers” (Santiago, 2008). USAirways saw international expansion as a way to increase profitability and use its hub and spoke network structure to its advantage. USAirways Senior Vice President of

Planning and Alliances, Andrew Nocella, comments in the article, “‘None of our hubs have enough local passengers to fill up a widebody jet going overseas. You must take in passengers from smaller communities,’ he said, ‘stressing that without that business model, we’re really not able to take advantage of international growth...’” (Santiago, 2008). International travel has been a sustainable competitive advantage for hub and spoke carriers. Airlines rely on bringing passengers from their spoke cities to fill international flights, and larger aircraft are also necessary for these itineraries. Low cost carriers like Southwest focus on domestic flights that they can fill between cities and have recently begun to leverage their growing networks to connect more destinations. However, point-to-point networks cannot compete internationally because the economies of density do not exist to connect more than a few U.S. cities to international destinations. Network carriers like USAirways also rely on a variety of aircraft, from regional jets connecting smaller spoke cities to their hubs to larger planes to fly overseas. International flights are one of the key reasons both low-cost and hub and spoke carriers will exist in the market. As low-cost carriers expand, they threaten short-haul flights for network carriers, but international flights depend on hub and spoke network structures.

Most recently, USAirways has made the news for the pending merger with American Airlines. Talks of this merger began in early 2012 among leadership of the two companies. American had been in bankruptcy since 2011, and initially preferred remaining an independent airline until they were out of bankruptcy rather than accepting a merger deal. Unions at American supported this merger, and so did Wall Street investors.

“The unions and other creditors, looking for the best possible deal on labor terms and debt repayment, want AMR [parent of American Airlines] to explore possible merger opportunities, including with USAirways...USAirways, meanwhile, has aggressively courted a merger, believing a tie-up could help the two companies better compete with

Delta Air Lines Inc. and United Continental Holdings Inc., both the product of mergers.”

(Spector and Carey, 2012)

Unions supported the merger because they felt that gave them the best opportunity to keep their benefits and jobs. Creditors want to see the airline remain viable, so their debts can be repaid. As was the case with other major airlines, mergers help them consolidate, reorganize, and in theory better compete in today's market.

Major airlines today are products of mergers and fewer options for consumers are available. While mergers become essential for the survival of major airlines, some are concerned with the impact on customer service “Take the latest scores from the University of Michigan's American Customer Satisfaction Index, which weighed data for six major airlines in 2011. American Airlines earned 63 out of a possible 100 points, just ahead of USAirways, which tied for second-to-last place with a score of 61” (Elliott, 2012). While Southwest prides itself on customer service and consistently achieves high rankings in this regard, both USAirways and American have struggled with this in the past. Consumers can choose which airlines they fly, but if mergers continue to be the dominant trend in the industry, they have fewer options available. Fewer airlines can have a negative impact on customer service due to lack of competition, which would motivate carriers to improve performance. If this merger occurs, it will be the next in a long history of consolidation in the industry. “Dozens of air carriers have combined since the industry was deregulated in 1978, and while the airline marriages have resulted in efficiencies for the industry, critics say they've hurt competition” (Tate, 2013). Mergers and acquisitions have been integral parts of the USAirways business model along with other hub and spoke carriers. They grow and expand their networks by acquiring other carriers and combining their fleets, crews, and routes. Mergers have their benefits, but potential negative effects on consumers are also possible.

In February 2013, the boards of directors for both USAirways and American agreed on a merger deal. This deal would result in both airlines adopting the American Airlines name and current USAirways CEO Doug Parker running the new airline. After the merger deal was announced, Parker commented:

“‘The combined airline will have the scale, breadth and capabilities to compete more effectively and profitably in the global marketplace,’ Parker said in a statement released Thursday morning. ‘Our combined network will provide a significantly more attractive offering to customers, ensuring that we are always able to take them where they want to travel, when they want to go.’” (Arnold, 2013)

While individuals at both companies feel that the merger is the most strategic decision for their future, one must consider the possible negative ramifications of this deal. USAirways growth through this merger will offer customers more route choices, but will they be faced with a higher price? Will the costs associated with this deal, such as integrating work forces and routes combined with a decrease in competition drive up fares? These questions remain unanswered, and the deal has not yet been approved by bankruptcy court. Presuming the merger occurs, it will take a few years for the two airlines to fully integrate. While the future of Southwest is focused on growth, the future of USAirways remains to be seen. Mergers have been a critical part of USAirways’ history, but this merger would result in the world’s largest airline, similar in size to United Continental, another recently merged corporation.

USAirways has had a completely different company history from Southwest. While Southwest has occasionally acquired other airlines, USAirways has depended on mergers to remain in existence. Their high cost structure requires them to maintain high levels of debt and has sent them into bankruptcy twice. As consumers become less willing to pay higher fares, USAirways and other network carriers face more difficulties, especially regarding low-cost competition. They leverage their network through international travel and by expanding it even

more through mergers. The trend of consolidation today with the United Continental merger, and proposed USAirways and American merger could be seen as a continuation of the mergers of airlines that has been in place since deregulation. By this point though, merging airlines have grown, are affecting more passengers and have more influence over the industry as a whole. It remains to be seen whether these recent large mergers will promote the growth and prosperity of hub and spoke airlines, allowing them to compete on short, domestic flights with low-cost alternatives.

Chapter 7

Southwest Success Factors, How They Compete and Win in a Post-Deregulation Hub-and-Spoke Market

After analyzing the business models and history of Southwest and USAirways, their key differences have been some of the reasons that Southwest has succeeded where network carriers have failed. Both hub and spoke and low-cost carriers have advantages and disadvantages, but network structure alone does not determine profitability. Southwest's low-cost business model has certainly helped it remain profitable for forty years, but other factors have contributed to this success as well. Outstanding commitment to employees and customers, the effect their low-cost model has on competing carriers, and the way they leverage their network of destinations are among the key ways Southwest has become the most consistently profitable airline.

The point-to-point business model only explains Southwest's success to a certain degree, and does not account for why Southwest in particular has succeeded over other low-cost carriers. Air travel is a service industry, and the superior customer service at Southwest is one of the key success factors for the company.

“The secret of Southwest's success is not to be found in their choice of aircraft, level of unionization, or route planning. It is in their commitment to providing the highest level of customer service with pride and caring... While disciplined growth is not cited in the mission statement of Southwest, controlled growth (and the associated costs) has combined with a dedication to superior, basic customer service, and a people focus to create a company (and airline) that is still setting records today.” (Rhoades, 2006)

Many airlines have focused on profit, earnings and growth, which are without a doubt, essential aspects of running a business. In order to achieve profit, a company needs the right people in place. Quality customer service is also important, and in the airline industry, a differentiating factor for Southwest. Its low-cost structure has contributed to its financial success, but its commitment to both its employees and customers sets Southwest apart in the airline industry.

Southwest continues its commitment to its employees by investing in training programs and developing its people to become the best in the industry. Southwest has even figured out how to manage its unions to make the airline as productive as possible.

“Each major work area has its own training department - mechanics, in-flight activities, customer service, operations and reservations. Even though Southwest is the most unionized airline, their work environment is free of rigid rules. The people work together to make Southwest the low cost carrier. Herb Kelleher [former CEO] and his people have adopted a successful family organizational philosophy; Southwest's people turnover rate is the lowest in the airline industry.” (Smith, 2004)

Not all airlines have the finances to devote to this type of training, but Southwest has seen returns and benefits from having a competent, productive workforce. By maintaining a positive atmosphere and corporate culture, Southwest managed to keep even its union employees satisfied and working towards common objectives. Smith goes on to report that Southwest pilots and flight attendants fly more hours, 80 hours and 150 hours per month respectively, than other airlines whose pilots typically fly 50 hours and flight attendants fly 80 hours. Southwest obtains higher utilization for their labor, resulting in a more cost efficient operation. In an interview with Chuck Thomas of Southwest, he commented that Southwest's philosophy does not center on buying labor at a cheaper price but rather offering competitive wages and getting higher utilization from those units of labor. If a pilot is paid the same salary but flies more passengers, the company generates more revenue for the same cost, and profitability increases.

Along with making labor productive, incentives must be aligned across the company in order to achieve profitability. Eliminating inefficiencies associated with different performance metrics across functions allows for a unified company approach that will ultimately lead to success. Southwest evaluates its people on their ability to generate on-time departures.

“For example, at a traditional airline the various functional units involved in the flight departure process, i.e. fueling, cleaning, maintenance, baggage handling, etc. can easily become trapped in the daily argument over who should be faulted with a late departure. At Southwest, they are all part of one process and, if necessary, expected to assist other functions in order to ‘get the plane out on time.’” (Rhoades, 2006)

This idea seems to be an obvious way to unify employees to work towards a common goal. In general, collaboration across functions is a challenge in the workplace. No one wants to take blame for poor performance, but by evaluating all groups on the same metric can make employees more likely to work together cooperatively. Southwest is able to be a low-cost airline because they implement efficient practices that legacy carriers do not. Because their employees collaborate, Southwest can operate with fewer employees per flight.

Moving away from Southwest’s focus on their own people, both employees and customers, their effect on the competition has also helped their success. When Southwest moves into a market, their lower fares impact the fares of incumbent carriers that fly the same routes. This process has been called the “Southwest Effect,” and forces competition to reduce their fares so as not to completely lose market share to Southwest. This effect happens even when Southwest enters a metropolitan area, not just a particular airport. For example:

“The Washington, D.C., area has three airports (Dulles, Reagan, and Baltimore-Washington International [BWI]) and Chicago has two (O’Hare and Midway). Vowles identified a precipitous drop in activity along the Dulles-to-O’Hare route, despite the fact that SWA only served BWI-to-Midway. Moreover, as SWA captured substantial market

share along its own route, its price leadership brought about a sharp price reduction on every flight from the Washington, D.C., metro area to the Chicago metro area.” (Tierney, 2008)

Although Southwest has traditionally flown primarily from secondary airports, these airports still influence travel at other nearby airports. Passengers are willing to travel further from their home or destination to take advantage of cheaper fares. Tierney’s study, published in *The Professional Geographer*, elaborates on reasons customers choose what they deem to be less convenient airports. These factors include fewer delays, better flight times, and easier ground transportation. Most secondary airports are often considered less convenient, but Southwest still takes business away from major airlines by flying into these airports. This study suggests that passengers have reasons for choosing certain airports, and these reasons often benefit Southwest. Their ability to charge lower fares and remain profitable hurts their competition, and in turn helps them increase their own revenue and market share.

The operating strategy of Southwest is considerably different from most other hub and spoke airlines. Growing through choosing its own markets rather than through mergers and focusing on markets dense enough to support direct flights are two ways Southwest has ensured success. They will never completely take over the market, but they capitalize on strategic expansion into areas not directly connected by major airlines.

“Southwest adopted a unique strategy of selecting specific niche airports that are dense enough to support linear traffic yet often not extensively served by the major airlines, and it obtained operational efficiency by using one family of (short-range) aircraft (737s) that can serve such a niche. Such operations serve only certain selected markets and cannot substitute for a basic air travel network system that provides high-frequency operation to a large and diverse number of markets with diverse aircraft types and passenger tastes...”

(Ben-Yosef, 2005)

Southwest knows their strength as an airline and their strategy for the past forty years has earned them a profit following this strategy. They have capitalized on a previously untapped market segment and have executed their strategy with outstanding customer service and well-managed costs. Southwest has never claimed to try to replace hub and spoke carriers, but rather has proven that an alternative business model can exist in the marketplace. While many other low-cost startup airlines have failed, Ben-Yosef goes on to argue, “It is also important to note that Southwest has dominated the low-fare segment of the market, and its advantages of scale might preclude entry by new low-fare airlines” (2005). Southwest’s success stems from its ability to manage its people, routes, costs, and expansion effectively. If Southwest broke into the market forty years ago, other carriers could do it today. Southwest is not immune to competition, and they cannot rely on economies of scale to protect success into the future. To achieve continued success, they will have to adapt and react to the constantly changing marketplace.

Chapter 8

Conclusions and Questions for the Future

In a post deregulation market, hub and spoke carriers came to dominate air travel and created a near monopoly in the industry. Incumbent hub and spoke carriers grew through mergers and expanded their hub and spoke networks by acquiring other airlines. Southwest grew by selecting markets that could provide enough passengers necessary for the airline to make a profit. Southwest can operate at a lower cost due to higher aircraft and employee utilization, its uniform fleet, and lack of expenses associated with connections through a hub. Furthermore, their careful expansion strategy and focus on customer service and their employees have been key advantages of Southwest. They entered a market previously dominated by hub and spoke carriers, and have capitalized on direct flights between cities that would require connecting flights on hub and spoke carriers. In a competitive marketplace, consumers want the best price for air travel. Airlines must find ways to remain profitable despite charging lower fares. Low-cost carriers have an immediate advantage in this environment because their lower operating costs allow them to charge lower prices and still make a profit.

Their initial advantages alone will not be enough to make them successful into the future. By this time, they have expanded into many parts of the country, and are beginning to leverage their own network to connect more cities. While Southwest begins to offer more connecting flights, and they have primary airports, their routes are not nearly as timed as hub and spoke routes. The purchase of AirTran also remains an open question for the future of Southwest Airlines. How they integrate the airlines together and whether this acquisition ends positively for Southwest is a question for future research. Consolidation of airlines has been a key trend in

recent years, primarily among the legacy carriers. The pending USAirways and American Airlines merger will be another question for the future if the federal government allows it to happen. Mergers have been essential to the growth and sustainability of USAirways over the years, but Southwest has not grown primarily in that way. Will the merger make Southwest more like the other airlines or will they remain true to the business model that has earned them a profit for forty consecutive years? What impact will these mergers have on customers of the airline industry? Will the incumbent carriers learn from the devotion to customer service Southwest maintains and use that to strengthen their own customer loyalties? Answers to these questions could be subjects for further investigation into this topic. As for the present time, Southwest appears to have a strong business model and found its niche in the market place. It will not completely overthrow the incumbent carriers like USAirways, but will remain a serious competitor especially for domestic travel.

Appendix A
Airline Executive Interview Guide

Southwest Airlines:

1. What do you see as the primary reasons for Southwest's financial success in recent years?
2. How was Southwest able to successfully enter the hub-and-spoke dominated market?
3. When deciding to expand into a new market, what is the process? What specific factors does Southwest look for in a new city-pair?
4. How does Southwest continuously keep costs at a reasonable level, especially when facing volatile fuel prices?
5. As Southwest grows, do you see it leveraging its network more like an older hub-and-spoke airline? Or remaining true to its point-to-point origins?
6. How will the purchase of AirTran affect the Southwest business model? What are the implications for the future of the company?

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ACADEMIC VITA

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EDUCATION

The Pennsylvania State University Smeal College of Business University Park, PA
Bachelor of Science in Supply Chain & Information Systems
Class of May 2013

Minors: Economics, Italian, and International Business

Schreyer Honors College

Beta Gamma Sigma Honor Society

November 2011-Present

Institute at Palazzo Rucellai

Florence, Italy

- Summer Study Abroad—Business and Italian Culture

May 2011-July 2011

WORK EXPERIENCE

The DuPont Company

Wilmington, DE

Supply Chain Intern—DuPont Chemicals & Fluoroproducts, Fluoropolymer Solutions

May 2012-August 2012

- Analyzed SAP shipping route code data using Excel and Minitab for both sales orders and stock transport orders to correct inaccuracies in order fulfillment and transportation timing
- Merged data from company BW reports and a third-party logistics provider's database to develop a complete picture of route timing for international shipments and to discover areas for potential timing improvements
- Presented recommended changes to 16 out of 40 major shipping routes to the leadership team, resulting in improvements in supply chain planning
- Created a continuous improvement process for quarterly review of shipping route data
- Communicated with leaders of the business, warehouse management, and customer service representatives to establish conditions on customer returns and to develop a streamlined customer returns process

LEADERSHIP EXPERIENCE

The Penn State Dance Marathon (THON)

University Park, PA

Donor and Alumni Relations Captain—Alternative Fundraising

September 2012-Present

- Worked with THON Chairpersons to develop effective fundraising and donor solicitation strategies
- Contacted THON's corporate donors to obtain donations for THON 2013

Finance Captain—Administrative Assistant

September 2011-February 2012

- Worked with 24 other Captains to process all THON donation checks that contributed to the \$10.68 million total

- Organized Canning Drop-Off Days, four Mondays each year when all THON fundraising organizations turn in money raised from the past canning weekend to the Finance Committee
- Created the THON Weekend Finance timeline, scheduling all Captain and Committee shifts during the weekend

Finance Captain—Commonwealth Campus Liaison September 2010-February 2011

- Worked with 23 other Captains to process all THON donation checks that contributed to the \$9.56 million total
- Tracked and deposited all checks from Commonwealth Campuses, totaling over \$300,000 for the year
- Relayed key rules and deadlines to Commonwealth Campus THON Chairpersons

Atlas THON Team University Park, PA

Merchandise Captain April 2012-Present

- Ordered all merchandise for Atlas members during the THON season

Alternative Fundraising and Family Relations Committee Member August 2009-Present

- Fundraised for THON through canning, letter writing and additional fundraising events
- Participated in planning events for our Four Diamonds families

Penn State Schreyer Honors College University Park, PA

Orientation Mentor—Service Committee August 2010

- Led a group of first-year scholars through three days of orientation events and activities