Southwest Airlines with the Keep-it-simple philosophy was always ahead in revenue and profit among the other airlines in the United States. One of the reason was because Southwest always had low operating cost structure. As a result, it had 32 consecutive years of profit. Nevertheless, this business started to grow and its operation got more complex. Southwest, like all other growing companies, started to use IT and develop its business based on IT strategies in order to boost efficiency. As the CIO of Southwest Airlines, this quarter we are going to analyze Southwest airlines IT strategies, find its strengths and weaknesses, and propose an IT solution that would be suitable for Southwest Airlines in order to increase efficiency and ease of operation. This proposal also includes feasibility study of the project, cost of implementation, brief timing, and expected ROI. In addition we analyze the possibility of using different technical means like software and hardware in order to develop the optimal solution.

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Outline:

- History and analysis of using IT in Southwest Airlines
- Strengths of the current IT infrastructure
- Weaknesses of the current IT infrastructure
- The new solution
- Outcome
- Conclusion
Southwest Airlines has grown from the beginning to the largest United States airline with 34 consecutive years of profitability. Throughout these years, Southwest Airlines emphasized the most on high touch on the customer satisfaction rather than automation as critical to business success. By 2002 the CFO (and subsequently CEO) Garry Kelly recognized that using IT would be necessary to meeting the company’s strategic objectives. Based on that, he started implementing a strong IT foundation. This IT infrastructure was initiated in order to support key processes within the company, including the industry’s first paperless ticketing system and early entry into web-based applications. Regardless of Southwest low-tech profile, the competitive market drove them to develop a lot of applications of information technology.

In Mid 80’s when the reservation price were increasing, southwest developed its own reservation system which in years evolved into the industry’s first ticketless system with eliminating the need to print and process paper tickets. Throughout the IT development project, Southwest.com was launched in 1995 and later in 1996 they started to sell tickets online on the website. This achievement led Southwest airlines to generate more than 70% of its passenger revenue by Southwest.com which had become the most frequently visited airline website. Although Southwest airlines IT development project turned to be successful, it was challenging to implement.

Southwest Airlines' Seven Secrets for Success

- One Plane Fits All
- Point-to-Point Flying
- Simple In-Flight Service
- No Frills, No Fees
- Strong Management
- A Relatively Happy Workforce
- Aggressive Fuel Hedging

Great Value. Excellent Service.
Southwest Airlines simple and friendly policy achieved a high level of satisfaction among flyers that are looking for lower airfare. Company has been adopted to keep their IT infrastructure, flight services, and plane model fairly straightforward but tried to make it as efficient as possible. For instance Southwest IT investment was planned to build what is necessarily need to change, not reform the entire system with something new that takes a while to adopt with and ultimately left them behind. Tom Nealon, former CIO of Southwest Airlines, in the Wings of Change Article mentioned that company didn’t make that much effort to build a new automate aircraft maintenance system as it is not an area with a less chance of have agile ROI. One of the strategies that make southwest different from the other airline is the use of their own website for online reservation system which enables them to have less effort in aggregating price and trips in the airline network and focus on their own system constantly. Developing such model was based on the service oriented architecture design to reuse the software components with the help of Tibco software. Tom Nealon claims that they have built messaging application systems that saves them time and money. Recently, southwest replaced their boarding system from the green screen devices to graphical apps, implements on Java enterprise edition using IBM webSphere development technology. It simplifies the process of early checking, replacement of seats and many complex functions with simple few clicks. However, it is not the goal of our system to advance in technology. It’s critical to know that technology is a tool to make our business agile and competitive among other national airline companies.

But how an airline company can be better if you don’t hear from your Customers?
“Everything was built in silos, on different platforms. There were a whole host of big gaps in functions. So even though we were spending a lot of money on technology, there were many places where we had no technology in the business.”

Jan Marshall, CIO and VP of Technology

Implementing a system that automates the process of reservation may take more consideration today compare to what we had in the past. Credit card companies, online purchase portals and reward systems have been built on database models. Southwest Sabre reservation system contains data relevant to each passenger’s specific booking whether it paid by cash or credit card. This information incorporated to a database along with frequent flier data and stored with the cross reference of customer name and contacts. In order to raise our marketing campaign, we need a system to interpret the flavor of our clients in terms of frequent leisure destinations, high and low demanded vacation packages and customer travel bundles. Knowing which region and clients will have a high possible probability of picking a specific vacation package or destination will allow us to find accurate advertisement plan for each region, business or even individuals. It’s just the matter of understanding people’s preferences and choice and implementing a data mining technique to connect these pieces and generate valued marketing data. Effective marketing based on correct data mining research will increase the number of southwest flyers and ultimately raise the sales. Moreover, on top of online reservation Southwest Airlines has added online self check in and boarding pass printing service which is big convenient for travelers since high security at the airports takes a lot of time for people who check in at the airport.
Southwest Airlines Porter Model

**Potential New Entrants**
- Local airline companies

Note: There are not a lot of opportunity to enter this business.

Southwest Airlines service is not such that everybody simply can do it. Moreover, the cost of entrance is very high. Hence, there wouldn’t be a lot of new entrants.

**Intra-Industry Rivalry**
SBU: Southwest Airlines
Rivals: United Airlines, American Airways, Jet Blue, Virgin, Northwest,...

Southwest Airlines kept the cost of its fuel constant and low by prepaying the fuel. That helped them to maximize their profit when the price of fuel was increasing. Instead of having the IT infrastructure in another company, they bought the necessary equipments to own their web site and IT infrastructure.

**Bargaining Power of Suppliers**
- Fuel Suppliers
- Airplane Maintenance
- WEB site

Southwest Airlines by providing low cost air fare can bring more individuals and students. Good customer satisfaction can be provided by convenient Internet services.

**Bargaining Power of Buyers**
- Individual travelers
- Business travelers
- Students

Using train and car instead of airplane is cheaper but it is also time consuming. Most of the business people would rather to pay more and get to their destination faster. Using car for long distance trips is not feasible because not only the fuel is expensive but also the maintenance of the car would be too much.

**Substitutes Products and Services**
- Train
- Bus
- Car

Southwest Airlines 1994-2006

Net Income / Employee per plane / Load factor Diagram

Exhibit 1: Key Metrics
Tell us what you think

Southwest Airlines airfare is one of the most attracting factors among other competitors and it enables people to experience not a luxury but friendly flight trips. Our winning strategies are not relied on prepaid fuel cost, advance IT infrastructure, rewards, or luxury planes. We believe that honesty is the key for keeping our clients in touch with southwest. After we collect and analyze the initial customer information and promote our selling strategy, we need to come up with a technique to keep the quality of service. Without customers feedback we cannot predict the result of our work. Developing such system in an airline industry has not been done yet. Designing a system that brings more fun and joy instead of using boring long survey forms, not taking our valued customer to fill out papers, and eliminating solicitors to call our customers has been a difficult task for marketing companies and competitors. The system that suites our industry standard and differentiate us among others.

Southwest
Thumbs-Up!

It is a scanner system which will allows us to collect quick survey from landed customers in any southwest exit point whether in the plane or at the airport. Installing a camera integrated with an image processing software which can analyze people overall satisfaction level as easy as scanning a thumb up – good- or thumb down- bad- whenever they exit from a plane. Service Oriented Architecture design enables us to implement a module in our current application system. Communications between Survey system and flight attendance database will always avoid extra or misleading votes from anyone except our customers since the number of customers per flight will be synchronized with the total number of voted thumbs at the end of each flight. System automatically will stop collecting more votes once it reaches to the total number of flyers. Surveys and customers data combined with the flight report will be sent to our database center for our data analyzer systems to conduct
accurate information about our performance and building different ways to improve it. After this analysis we will be able to accurately determine the lacks and strengths in our service. This system is green since we use fewer amounts of papers. It is efficient because it takes less amount of time to collect data. It is cost effective due to huge saving on printing expenses. It is clean as travelers don’t need to touch anything. And the most important but not the least, it is accurate since the feedbacks from the flyer are going to be the most current. Implementing this system is not too expensive and the expected ROI is 9 to 12 months based on the number of clients flying with Southwest Airlines currently and the interest this system will create among new flyers. In addition, Thumbs-Up! Brings trust among our flyers that how important their opinion is for Southwest Airlines.

- **Green**
- **Efficient**
- **Cost Effective**
- **Touch Free (Clean)**
- **Accurate**
Outcome

Nowadays, all competitors have Rewards, sophisticated IT infrastructure, luxury planes, effective marketing strategies, and all other means of growing. The key point is how effectively and accurately they use their information? In today’s business, those companies which utilize their data correctly will be successful. Moreover, all competitors use their customers’ information to solicit, send them advertisement, or encourage choosing them because they believe they have better rewards programs and so on. These methods are getting obsolete because they are bringing inconvenience to the customers and damaging the environment. How many pages of advertisement are thrown away by people every day? How many times you have received telemarketing calls and you wished you hadn’t answered the phone? How often you wanted to leave a feedback for a service you have received and you have given up due to the time-consuming surveys? These are all against Southwest Airlines simplicity philosophy and have conflicts with its values.

“I think in many cases we’ve got the best of both worlds, where we’ve enhanced customer service through automation, and we’ve also lowered our costs through automation. And that’s just a grand slam homerun. It is really a joy to see how, in a twenty-year time horizon, we’ve gone from being a really low tech company to one that’s on the cover of Business Week. We’re one of the twenty-five most innovative companies in the world and we do have automation.”

Gary C. Kelly, CEO

These days, time is the most valuable element in people’s daily life and everybody is seeking fast, effective, and simple ways of communications. At Southwest Airlines, we should sponsor this value in order to forereach competitors. By using Thumbs-Up! We focus on what our customers think about us to make ourselves better instead of concentrating what our customers would like. The latter method might bring some customers but having happy customers will definitely bring more business toward us.
Sources

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