Application of Customer Relationship Management in Airline Industry

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Abstract

In this paper we introduce customer relationship management systems and their effects on the airline industry. We show that in which areas CRM systems can support airlines and what kind of technologies or tools can help to improve such systems. At the end of this paper we use the current airlines’ situations and their market demands to show the differences between market needs of major airlines CRM systems and that of low-cost airlines.

Keywords: Customer Relationship Management (CRM), Airline Industry, Business Intelligence (BI), Competitive Intelligence, Low-Cost Airlines (LCC), Major Airlines

1. Introduction

In the competitive travel industry, customer satisfaction no longer guarantees customer loyalty. Deregulation, increased parity of products, the availability of new and diverse direct distribution channels, industry alliances, and many other factors have combined to force operators in the Airline industry to focus on new differentiators in order to maintain current and develop greater market share.

In response to this new environment, travel providers are undertaking initiatives centered on identifying, developing and retaining high-value customers, under the overall banner of customer relationship management or CRM. [1]

A major purpose of this paper is to provide a managerially useful, end-to-end view of the CRM process for airline Industry. The basic perspective is taken is from customer needs and what do managers need to know about their customers and how that information is used to develop a complete Airline CRM perspective.

2. What do we mean by CRM?

Customer Relationship Management (CRM) is the disciplined application of customer information to build customer relationships through:

• Continually refining insights into customer needs, habits, and economics
• Developing targeted and tailored value propositions based on those inputs
• Strategically focusing business resources on activities that build long-term customer and economic value.

CRM includes the methodologies, technology and capabilities that help an enterprise manage customer relationships. The general purpose of CRM is to enable organizations to better manage their customers through the introduction of reliable systems, processes and procedures.[2]

Customer Relationship Management is a corporate level strategy which focuses on creating and maintaining lasting relationships with its customers. Although there are several commercial CRM software packages on the market which support CRM strategy, it is not a technology itself. Rather, a holistic change in an organizations philosophy which places emphasis on the customer.

A successful CRM strategy cannot be implemented by simply installing and integrating a software package and will not happen over night. Changes must occur at all levels including policies and processes, front of house customer service, employee training, marketing, systems and information management; all aspects of the business must be reshaped to be customer driven.

To be effective, the CRM process needs to be integrated end-to-end across marketing, sales, and customer service. A good CRM program needs to:

- Identify customer success factors
- Create a customer-based culture
- Adopt customer-based measures
- Develop an end-to-end process to serve customers
- Recommend what questions to ask to help a customer solve a problem
- Recommend what to tell a customer with a complaint about a purchase
- Track all aspects of selling to customers and prospects as well as customer support.

When setting up a CRM segment for a company it might first want to identify what profile aspects it feels are relevant to its business, such as what information it needs to serve its customers, the customer's past financial history, the effects of the CRM segment and what information is not useful. Being able to eliminate unwanted information can be a large aspect of implementing CRM systems. When designing a CRM's structure, a company may want to consider keeping more extensive information on their primary customers and keeping less extensive details on the low-margin clients. [2]

3. What do we expect from Airline CRM?

We defined what we mean by CRM, now it’s the time to more focus on Airline CRM. In this section we define a sample model of Airline electronic CRM and elaborate what we expect from it. We all know that airline's success depends heavily on its ability to intelligently manage sales, marketing, and service processes and to draw mutual advantages from understanding of airline's customers. To help airline maximize the strategic value of customer centric initiatives, Airline e-CRM model provides a comprehensive analytical solution, it can contribute toward improving the way that measure and optimize airline's relationships with customers. Airline e-CRM model can be conceptualized as a system that is made up of components, linkages amongst
the components, and dynamics that takes advantage of the properties of the Internet and relationship to make money. It takes advantage of the properties of the Internet in the way it builds each of the components-value, scope, revenue sources, pricing, connected activities, implementation, capabilities, sustainability and crafts the linkages among these components. It is what, preferably, enables an airline to have a sustainable competitive advantage. It includes three components (subsystem): Web Base Airline-Passenger Interaction subsystem; Airline Data Warehouse subsystem; and Airline e-CRM operation subsystem.

Airline e-CRM model is an asset-based solution that includes best-of-breed components to build an e-CRM infrastructure and enable any-channel, any-time communication with customers. At the heart of this offering is the CRM Foundation, which includes the CRM data model, starter set of CRM queries, reports and analysis, sample data, a demonstration prototype, data utilities and scripts, and comprehensive documentation that covers implementation guidelines, business perspective and analysis guidelines, system components, data model descriptions, and use and customization guidelines.

Since managing customer interactions is a vital piece of the e-CRM puzzle, planning and implementing a Multi-Channel Interaction Management solution with the other subsystems and enterprise solutions is crucial. Without Interaction Management, the puzzle remains incomplete. Interaction Management is the foundation for evolving customer service into customer satisfaction by tying together all customer data - no matter where it is located within the enterprise. Making this information easily and quickly accessible to the customer management process, and ensuring each customer is handled in the most efficient and effective way possible is the ultimate result of a well-defined and deployed strategy and solution.

Airline e-CRM model also:

- Provides an understanding of customer behavior and enables airlines to measure results of marketing and merchandising changes.
- Supports more effective promotions through integration of data between marketing and merchandising users.
- Provides a single view of customers across the enterprise and across contact points.
- Gives airlines the ability to respond more dynamically and quickly to market demands.

Figure 1 shows a related Airline CRM:
Figure 1: CRM Architecture for a major scheduled Airline[1]  

Significance derived from airline e-CRM implementation will allow for new e-business model, based on the wide availability of information and its direct distribution to end-customers.

- Directly connect airlines and passengers.
- Support fully digital information exchange between airlines and customers, reduced cost of a customer contact.
- Suppress time and place limits.
- Support interactivity and therefore can dynamically adapt to customer behaviors.
- To be able to satisfy customers' need, build customer confidence and retention.
- Can be updated in real-time, therefore always up-to-date.
- Enhance airlines competitive advantages over its rivals.
- Profitable and sustainable revenue growth.

3. The benefit of CRM application to the airline industry

A vexing question for a number of airlines is how much value does customer relationship management, or CRM, really deliver to the bottom line and how does an airline go about getting it? While this question remains unanswered, many skeptical senior managers will continue to pay lip service the strategic importance of a customer-centric perspective and will continue with business as usual. Applied Technologies Group's investigation of 17 world-class airlines has clear indicated that significant revenue improvements of 0.9 and 2.4% are achievable.

This revenue increase comes from three areas:

- Re-attracting defected customers, which accounts for between 0.1 and 0.3% of revenues;
- Increasing the share of a customer's travel wallet, which accounts for 0.3 and 1.2% of revenues;
- Acquiring new customers, this accounts for approximately 0.05% of revenues.
Naturally, associated with these revenues are costs, but this only amount between 0.3 and 0.6% of the existing cost base:

- The marginal additional flights needed as incentives estimated to be between 0.2 and 0.4% of costs;
- Additional CRM initiatives amounting to between 0.2 and 0.5% of costs.

Savings in costs due to more efficient and targeted running of the existing CRM program, providing a reduction of 0.1 to 0.3% of costs;

As stated above, the bottom line impact of CRM is significant, but varies according to the airline implementing the initiatives. The range estimates are:

- For a large airline: $100-$250 million per year;
- For a midsize airline: $25-$60 million per year;
- For a smaller airline: $15-$50 million per year.

There are many benefits to be gained for airlines and airline passengers, firstly, passengers could book and check in through internet 24 hours, 7 days a week, at any time, any where. Secondly, airlines could reduce sales cost. American Southwest Airlines CEO, Gary Kelly said the Web site is playing a major role in mitigating the rise in unit costs affected by high fuel prices. It's 10 times cheaper to deliver to customers through the online service than through a travel agent, Kelly said, and costs 5 times less than using Southwest's own reservation staff. The booking cost per passenger online is "well under $1," said Kelly, and is scaling down even further. He said Internet use by passengers was helping the carrier keep fares at low discount levels. (Aviation Week & Space Technology/March 6, 2000, p38).

Massive investment in both business-to-business (B2B) and business-to-customer (B2C) information systems is expected to translate into important cost savings in procurement, sales, billing and other support activities. The airline's fully automatic ordering system, for example, should reduce order processing costs by 90%, according to Chairman/CEO Jorgen Weber of Lufthansa Aviation Group. (Aviation Week & Space Technology/May 15, 2000, p40).

Customers enjoy personal treatment, together with appropriate advice on getting the best out of their purchases. The airline may also put customers in touch with others with whom they have similarities, for example by inviting them to meetings.

For the airlines implementing CRM, it becomes possible to single out customers who are profitable, gaining an understanding of their preferences to improve retention and increase the volumes sold. These valuable customers can become advocates for the airline and its products. Finally, CRM helps an airline to build loyalty. Because it is a marketing truism that it costs five times more to generate new customers than it does to retain existing ones, that is a compelling argument.

With e-CRM, airlines can increase sales and customer loyalty. This strategy can improve sales effectiveness, bring higher value to all of airline's key business relationships, help airline to understand what each client relationship is truly worth, develop and reinforce a consistent experience for customers, improve management effectiveness, improve tactical and strategic planning, respond faster to competitive challenges, use critical resources more efficiently, and reduce administrative burdens and overall cost.[3]
4. Which factors sway the customer’s decision and what is the final aim of airline CRM?

Individual service and relationship quality make all the difference. Customers who have already experienced comprehensive service first-hand will choose a product again. Loyalty programs help to enforce this decision. Image and the emotional value of a brand are important for both new and existing customers. The decision-making factor is: fulfill the expectations of your customer.

Finally, the aim of airline CRM has been listed as below:

- Improve your ability to gain and regain customers
- Improve your brand and image
- Increase the loyalty of your customers
- Reduce your costs
- Introduce change management processes [4]

5. A Sample Implementation and Physical Architecture of Airline CRM

In this part, we describe an example of airline CRM system then we describe the physical system architecture.

An airline passenger may check in through one of three contact media—telephone, kiosk, or face-to-face at a check-in desk. Whichever channel is selected, the process will be identical. The passenger will present the necessary information to the agent, kiosk interface or Interactive Voice Response (IVR) system for the booking to be retrieved from the departure control system. Information from the customer service system and the frequent flyer application has been consolidated into the data warehouse. Business intelligence and data mining tools have categorized the passenger as a “valuable customer” with a predicted high lifetime value. In addition, the customer service system contains a report that the passenger recently traveled on a long-haul sector in a seat with a broken in-flight entertainment system. Extracts from the data warehouse are replicated in an online customer database designed specifically to support the decision systems in real-time. At the time of check-in the passenger’s identity is passed to the decision systems to identify any “special” action which needs to be taken. Due to the status of the passenger and in recognition of the customer services incident, it is decided that the passenger should be upgraded to first class. The decision system will automatically implement the upgrade via the departure control system and generate a prompt to explain why. At the time of check-in the passenger is automatically upgraded to first class and is given the reason, either verbally by the check-in agent, as a prompt on the kiosk interface, or as a synthesized message generated by the IVR. To complete the customer service loop, a letter is automatically generated afterwards to apologize for the incident and reinforce the action taken. In a similar way, should the passenger use Italian as their first language, the automatic check-in processes can be personalized to communicate in Italian. A customer-centric approach can be built up around all customer contacts and transactions, not just those in service recovery.

Now we want to see how the physical architecture of this system would be:

A total CRM architecture of this type need not be implemented as a whole. CRM is a customer-centric approach to business rather than fixed solutions architecture. In any situation, operators will possess many of the components shown implemented in a variety of forms. This means that there is much alternative architecture available to support the IBM blueprint, and IBM consultants
work with many vendors’ technologies to design the optimal solution for each client. Figure 2 depicts the generic architecture which will deliver the benefits of CRM through existing operational transactions. The generic architecture can be broken down into two discrete threads; the processing required to capture data from operational systems, building the data warehouse and adding value to that data through business intelligence; and the transaction system processing appropriate to the business function.

An extract of key attributes from the data warehouse will be replicated into an online customer database to provide real-time access to customer information for rapid decision making. The operational transaction processing and the systems and channels which are involved will depend upon the process being supported. However, irrespective of the transactions being addressed, all channels should be coordinated by a common framework to establish consistency of experience, conduct and results. Implementation of the decision layer will also depend upon the nature of the business process being handled. Direct marketing processes may use a campaign management tool to provide this function, whereas other service recovery processes may use a series of triggers and stored procedures in the customer database.

6. Tools and techniques used in Airline CRM

In the airline industry, data analysis and data mining are a prerequisite to push customer relationship management (CRM) ahead. Knowledge about data mining methods, marketing strategies and airline business processes has to be combined to successfully implement CRM. Data mining is very useful to support CRM in the airline industry. In an initial phase of CRM, customer segments based on individual patterns are found that it describes groups of customers with distinct needs and value. The segmentation results are very useful for marketing concerns and for improving customer services. For instance, the derived strategic segments can be used to derive some high-level business strategies and to perform tactical marketing actions, respectively. By exploiting data mining the customer value can be improved while considering operational costs in assessing a flight segment. There is an accounting system, where all kinds of costs (e.g. operational costs as well as overhead costs) are gathered. The information is available for each single flight leg, but it is rather difficult to give a sensible breakdown to single passenger’s costs. Members of the frequent flyer program are only one part of airlines customer. A further task is to
find strategies to bundle information about flight activities of all customers. The gained information can also be used to identify future potential customers beyond prospects. One of the other applications of data mining in airline business is to work for developing a monitoring system, which is able to identify trends within customer segments, to discover outliers and to control the quality of the segmentation model. This is necessary, since customer behavior is strongly influence by exogenous factors [5].

7. Competitive Intelligence and Airline Industry

Competitive Intelligence is the process of obtaining and analyzing competitive information to help achieve the objectives of the organization (as defined in the book Beat the Competition, by Ian Gordon, 1989, one of the first books on Competitive Intelligence).[6]

- Competitive information may be obtained from public or subscription sources, from networking with competitor staff or customers, or from field research interviews. Competitive Intelligence research is distinguishable from industrial espionage, as CI practitioners generally abide by local legal guidelines and ethical business norms.

The primary output from competitive intelligence is the ability to make forward-looking decisions. For example, Jack Welch, former CEO of General Electric determined strategy based on key intelligence questions:

- What is the detailed global position of your business and that of your competitors: market shares, strengths by product line and by region today?

- What actions have your competitors taken in the past two years that have changed the competitive landscape?

- What are you most afraid your competitors might do in the next two years to change the landscape? [7]

As an airline manager we should always monitor the airline attitude and also our competitors to see whether there is a chance to develop a new competitive advantage or not. In the next section explore in today’s airline industry that which factor has the most important effect in an airline business.

8. Controlling Costs or Bringing Loyalty?

In today’s airline industry brand loyalty, once a key factor in all major U.S. airlines’ strategies has become less of a priority as carriers believe that price is what more and more customers care about.

The decline in travelers who stick with a single carrier is a by-product of sweeping industry changes triggered by the weakening of popular frequent flyer programs, the rise of low-cost carriers and the restructuring of major airlines.
“It certainly is damaging to the industry as a whole,” said Stuart Klaskin at KKC Aviation Consulting. “What it means is that there’s this floating customer base. Every airline has to work harder to attract and retain customers.” The airlines with the most to lose are the so-called legacy carriers, such as AMR Corp.’s American Airlines, UAL Corp.’s United Airlines and Continental Airlines, Klaskin said. These are the companies that have worked since the early 1980s to win steady customers through frequent flyer programs. Airlines have been able to generate hundreds of millions of dollars by selling frequent flyer mileage credits to banks, hotels, car rental services and phone companies. Victims of their own popularity, frequent flyer miles have become difficult to redeem, simply because so many travelers are trying to do so. It takes an increasing number of miles for a customer to get a free flight or upgrade to better service. “It’s absolutely harder to find seats that airlines are willing to let go for no incremental revenue,” said airline consultant Robert Mann. No. 5 U.S. airline Northwest Airlines, however, argued that customer loyalty remains a pillar of its business model and that its frequent flyer program spurs business. “Northwest remains committed to building customer loyalty through its World Perks frequent flyer program, and it remains a core aspect of our marketing efforts,” Northwest spokesman Kurt Ebenhoch said. “It is the platform we use to recognize and reward our best customers.”

Brand loyalty has suffered since an industry downturn in 2001 forced major airlines to reduce expenses. Several embattled carriers adopted lower-cost models like Southwest Airlines Co. and JetBlue Airways Corp., which often sell tickets for less than the majors. Some carriers have abandoned free in-flight perks in favor of charging customers extra for drinks, meals and entertainment. This shift in strategy has further diluted the value of frequent flyer upgrades. “The value of a free seat is no longer what it once was,” Mann said. Bankrupt Northwest, for example, has tested an extra fee for coveted aisle seats. AMR Corp.’s American Airlines no longer offers complimentary pillows. Most major airlines have discontinued free meals on domestic flights. Meanwhile, some low-fare airlines bolstered in-flight amenities, further blurring the distinction between themselves and the major carriers. “The common theme here is that as the low-cost segment has moved toward improving their product and offering more amenities, the major carriers as a whole have moved toward reducing these amenities,” said Kevin Mitchell, head of the Business Travel Coalition. “The products look almost the same.”
Experts say travelers are spoiled by cheap flights and that the low-fare revolution has made price the main — and sometimes only — consideration for customers. “For the first time, this industry is consumer driven,” Mitchell said. “The consumer has said very often and loudly where the price points are.” Mitchell said United and Continental, the No. 2 and No. 4 U.S. airlines, respectively, are the only majors that still make wholehearted efforts to win repeat customers by nurturing loyalty. Others focus on almost exclusively on low-fare competition, a move that alienates some long-time customers who might have booked flights without shopping first, said KKC’s Klaskin. “Price took precedence over loyalty,” he said.[8]

But now it would be better to see whether it is still good for airlines to use CRM system when they have a good compromise in prices with customers: Below is report from the manager of EasyJet one of the successful low-cost airlines in the Europe.

Low-cost airline EasyJet is using customer-relationship-management (CRM) software from Right Now technologies to enhance its online services and reduce operational costs by an estimated £750,000. The service is already deployed across the company’s seven European websites and features a knowledge base that refines and grows the more it is used, allowing easy and timelier access to booking information.

The CRM service module enables the 1.5 million people who visit the company’s website each week to carry out end-to-end transactions while they are online, without any intervention from customer service agents. It responds to natural language text and keyword searches, using artificial intelligence to ensure that the details returned are accurate and relevant to the original criteria. Currently, 90 per cent of customers are resolving queries independently using the solution.

Any enquiries that cannot be resolved through the system can be escalated to customer service agents, who have access to the resources contained in the knowledge base via e-mail. When a new question is raised, the agent can upload the answer, potentially saving time on future transactions. Already, customer e-mail enquiries have reduced by 40 per cent, allowing agents time to concentrate on more complex issues.

“The airline travel industry is aggressively competitive, so providing good service and maintaining customer relations is really important,” says Gary Schaffer, EasyJet’s head of contact centre. “At the no-frills end of the market, pricing is important but service is a differentiator. The challenge will be to maintain high levels of customer support while keeping operational costs to a minimum. Our CRM deployment is future-proof, allowing for passenger growth without the need for a linear growth in headcount. It can also be extended and expanded as needed.”

The CRM service provides a centralized system that allows innovations in customer service to be tested and deployed. A pilot voice self-service solution and e-mail marketing automation tool are also expected to be rolled out as part of EasyJet’s continuing initiative to provide enhanced levels of customer support.[9]

5. Conclusion

As we saw in the last two reports, CRM systems should us differently in major airlines and low-cost airlines. In major airlines they should promote customers with better offers that compromise with cost-effect market needs and in low-cost airlines CRM systems should be used to enhance service delivery, service quality and better accuracy.
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