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Introduction

A shift from product-driven marketing to customer-driven marketing has become essential in today's highly competitive business environment. Companies must continuously learn from interactions with customers and respond to the knowledge gained from those interactions. This white paper discusses the technological and business issues involved in implementing a marketing campaign management initiative based on progressive techniques in managing customer relationships. It details the practice of using advanced data management and analysis techniques to transform a large amount of carefully chosen customer data into reliable information to support strategic and tactical marketing decisions. This paper illustrates one instance of integrating analytical CRM with operational CRM for competitive advantage.

CRM and Campaign Management

Widespread changes in the business landscape and a change in the way customers view the marketplace have caused companies to shift their attention away from internal considerations like reducing costs and streamlining operational systems, and instead to focus on the concept of customer profitability. By taking an economic view of customers that measures how profitable a customer is to the company rather than measuring the profitability of product lines, companies are adopting a customer-centric strategy, stressing the importance of optimizing the value of each customer relationship. The technology-driven process that makes this possible is called Customer Relationship Management (CRM). CRM is a process by which a company maximizes customer information in an effort to increase loyalty and retain customers' business over their lifetimes. It combines a progressive approach to gathering customer data with advanced database and decision support technologies that help transform that data into business knowledge. By maximizing the use of customer information, companies can better monitor and understand customer behavior.

Note: For a more detailed discussion of CRM and the data warehousing, data mining, online analytical processing (OLAP), and advanced decision support technologies it involves, refer to the SAS Institute white paper *Implementing the Customer Relationship Management Foundation – Analytical CRM.*

CRM initiatives can be applied in a wide range of business functions, one of which is marketing campaign management. The CRM process, coupled with the advanced campaign analysis tools that are available, can help companies execute marketing campaigns that are more tightly focused and automated, directing costly marketing efforts toward only those customers who will maintain or increase their value to the company.

Sharing one of the basic tenets of CRM, that it is at least as profitable to focus on customer retention as new customer acquisition, modern marketing campaign management is an ideal application of the CRM process. With the power of a CRM-based campaign management solution, we can extend that basic tenet one step further: marketing efforts can be directed not toward all existing customers but toward only those customers who, if retained, are likely to maintain or increase their value to the company.

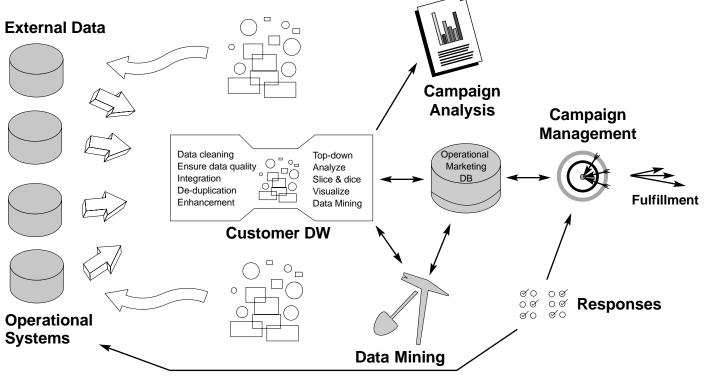


Figure 1. Campaign Management Data Flow

To be successful, database marketers must, first, identify market segments containing customers or prospects with high profit potential and, second, build and execute campaigns that favorably impact the behavior of the individuals in these segments. Segmentation is the key starting point in understanding individual customers. Through analytical segmentation techniques, customer information such as demographic data and lifestyle information can be combined with historical customer information to help identify differences in behavior among various groups, or segments, of customers.

Because segmentation involves analyzing huge amounts of customer data, data mining is a key component of campaign management. But before we discuss the importance of data mining in detail, let's step back and take a look at the entire CRM-based campaign management process.

In a CRM-based campaign management initiative, operational data is combined with legacy data and market data from external sources, plus, because of campaign management's focus on predicting reactions to an upcoming campaign, information about the customer's history of responses to campaigns is added as well. Data from each of these sources is cleansed and compiled into a customer information warehouse.

Utilizing the customer information warehouse, target groups are selected for promotional campaigns. This is accomplished through OLAP analysis. The multidimensional views that OLAP technology affords make it easier to identify customer segments with regard to their historical response to campaigns.

Marketers could stop there and simply market to the customers who historically respond. But there's a better way. Through advanced data mining techniques, you can create complex models that segment customers into groups with predictable buying or consumption behaviors. You can take into account a much more accurate view of whether a given customer is likely to respond to the campaign. Marketers using data mining tools can find new ways to categorize customers and more efficiently identify those customers most likely to respond in any number of ways, whether it be to buy more products, buy different products, or even discontinue as a customer.

After mining the data, marketers must feed the resulting models into campaign management software that manages a marketing campaign directed at the defined customer segments. Then, once a precisely targeted campaign has been defined, campaign management software can help ensure that the details of the campaign are communicated to each customer contact point involved and coordinate ongoing management of the campaign until its completion. Finally, campaign management software and OLAP tools are both used to facilitate the back-office processes of communicating, analyzing, and managing data about the campaign results.

Data Mining: The Key to Successful Campaign Management

In order to function as a customer information warehouse, a CRM data warehouse must contain massive amounts of disparate customer data. When viewed though conventional techniques, the value of some of the data may not be apparent. Only when it is analyzed using data mining techniques does the data yield hidden information about your customers and their buying behaviors. It is these discoveries that will enable you to exploit marketing opportunities that your competitors are missing. When you use data mining technology to automate the process of searching through large amounts of data, you can find patterns that predict customer behaviors more efficiently.

Data mining creates models by using information from the customer information warehouse to predict customer behavior. The prediction is usually called a score. A score is assigned to each customer and indicates the probability that the customer will exhibit a particular behavior. Scoring is a method that direct marketers use to determine which individuals or households are most likely to respond to a particular offer. Scores can be based on a large number of variables, all of which are stored in the customer information warehouse. After scoring a set of customers, the scores are used to select the most appropriate prospects for a targeted marketing campaign.

Tight Integration between Data Mining and Campaign Management Software

Campaign management software uses the scores generated by the data mining model to zero in on a particular segment of customers, the goal being to improve campaign effectiveness. But the campaign management software can be even more useful if it can work with customer models directly instead of with the scores the models generate. Integration between the two processes can help solve logistical problems associated with running a large number of frequently changing campaigns, as well as enabling dynamic scoring, which improves scoring efficiency by ensuring only target segments are scored. Dynamic scoring not only saves time but also ensures that the scores are completely up-to-date.

Some of the benefits of integration between data mining processes and campaign management software are as follows:

- Enables dynamic scoring
 - Eliminates need to score entire database
 - Improves efficiency and simplifies refinement of campaigns
- Enables the execution of many multi-event campaigns
- Accelerates the campaign cycle
- · Improves targeting
 - Improves response rates
 - Builds relationships
 - Reduces costs

- Provides campaign analysis and feedback
- Reduces manual intervention
- Introduces a process to maintain and develop models by linking the two applications

Integrating data mining and campaign management can accelerate marketing cycle times, reducing costs and increasing the likelihood of reaching customers and prospects before competitors. Scoring takes place only for records defined by the customer segment, eliminating the need to score an entire database. This is important to keep pace with continuously running marketing campaigns with tight cycle times. Plus, new campaign results can be immediately factored into ongoing campaign management activity. Fresh data enables marketers to refine scoring information within defined market segments and improve ongoing campaign results. The end of each campaign cycle presents another chance to assess results and improve future campaigns.

Partners in Campaign Management

To build a complete campaign management process that takes advantage of the latest technology, it makes sense to examine the individual components of the process and obtain the right solution for each. When looking at analytical CRM—the data warehouse, data mining, OLAP, and decision support components—the optimal choice is software and services from SAS Institute. As a recognized leader in each of these areas, SAS Institute can provide you with world-class solutions to address a wide range of business requirements.

In an effort to provide a total solution to customer interested in campaign management, SAS Institute is currently collaborating with some of the industry's leading producers of campaign management software to seamlessly integrate SAS analytical software with campaign management software. When implemented as part of a closed-loop cooperative effort with the SAS CRM solution, campaign management software will be able to access the customer information warehouse; automate the planning, design, execution, and scheduling of multiphase marketing campaigns; profile customers; create target segments; develop sophisticated, targeted campaigns; measure and test new strategies; and track the complete history of each customer communication.

Integrating SAS Institute's analytical data warehousing technology, model-development architecture, and pre- and postcampaign analysis engine with powerful campaign management tools effectively automates the process of evaluating and managing campaigns and making them better focused. The result is a more intelligent basis for campaign management that can shorten the cycle time for both campaigns and for analytics.

A Study in Success: One Company's Campaign Management Initiative

The telecommunications industry is one of many that has had to react to changes affecting its markets. The changing business landscape has stimulated a dramatic rise in competitiveness, and many telecommunications companies have experienced a loss of market share as a result. One of the nation's largest telecommunications companies, with more than 20 million customers, is no exception. When their research showed that they were selling to only a third of the customers in their market, the company reacted in a way that many forwardthinking competitive companies are reacting: taking steps to maximize customer profitability by optimizing the return on marketing investment in acquisitions and retention. They adopted a CRM-based campaign management strategy. In 1998, the company developed an enterprise marketing plan that laid the foundation for what is now a highly successful system for managing customer relationships. The system optimizes the profitability of customer relationships via continuous one-to-one customer management processes that maximize retention and cross-selling rates. And the key component of their initiative was the marketing automation solution provided by SAS Institute. By utilizing models generated from Enterprise Miner[™] software as input to Exchange Application's ValEX campaign-management software, the company's system became one of the first complete, fully automated, CRM-based campaign management initiatives.

The marketing automation solution from SAS Institute, which integrates sophisticated predictive modeling and campaign management software, provided a dynamic, customer value scoring capability. When presented with a complete picture of the customer by continually gathering data from all customer contact points, the company was better able to understand and predict customer behavior, needs, and profitability and then feed this knowledge back to customer contact points. Instead of high-volume untargeted mailings, this forward-thinking telecommunications company now delivers many more small, highly targeted, customized mailings through marketing automation.

Summary

In a world where corporate competition continues to increase due to external market factors and a market-savvy customer base, companies must discard their business philosophies of the past and adopt innovative ways to maintain customer loyalty and profitability. Companies must adopt a customercentric strategy that stresses the concept that success over time comes from customer loyalty—that long-term profitability lies in fostering unique lifetime relationships with small numbers of carefully chosen customers. Companies must continuously learn from interactions with each individual customer and be prepared to dynamically respond to information and knowledge gained from those interactions. What makes this possible is CRM, a method of processing a large amount of carefully chosen customer data in order to obtain reliable information to support strategic and tactical business decisions.

Campaign management is one operational application of CRM that improves a company's ability to evaluate its customers' needs and respond with marketing programs that foster prolonged customer loyalty. A successful CRM-based campaign management initiative allows companies to identify market segments containing customers or prospects with high profit potential and create marketing campaigns that favorably impact the behavior of these individuals.

By utilizing advanced data management and analysis techniques coupled with powerful campaign management software, companies can create a true one-to-one marketing environment that targets customers based on an optimal balance of needs and customer economics. This requires working with extremely large volumes of disparate customer data, but the analysis capabilities of today's data mining and OLAP software make the required customer segmentation and modeling possible.

SAS Institute offers the only software and services solution that spans the entire decision support process for managing customer relationships. Companies can collect data at all customer contact points and turn that data into knowledge for understanding and anticipating customer behavior, meeting customer needs, building more profitable customer relationships, and gaining a holistic view of a customer's lifetime value through all possible interactions with the company. While SAS technology provides the key ingredients for successful CRM, we recognize the need to deliver a solution that incorporates decision support, operational feedback systems, system implementation services, and business process expertise. That's why we are partnering with companies producing campaign management software to provide the most complete solution. These partnerships will make an integrated CRM-based campaign management solution much easier for our customers to implement, speeding their return on their marketing investment and resulting in increased customer loyalty.



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