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Bank Management System Using Salesforce

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Abstract: ***Salesforce is a very hot cloud computing technology in the IT industry, which is available on the cloud, with no need to install any software as well as no hardware required. Salesforce is one on-demand CRM, which runs on the platform, as well as CRM, which is a model used to manage organization interactions like phone calls, Emails, Meetings, and Social media with customers and also prospects penetrating to Sales, Marketing, and Support. In this paper, we are discussing Introduction to Cloud Computing, Service models in Cloud Computing, Types of Cloud Computing Architecture of Cloud Computing. This paper aims to show mainly the importance of Salesforce.com which is a software giant that manages to give the buyer an easy-to-use as well as extremely effective CRM solution.***

Keywords: Cloud Computing; CRM;

I. INTRODUCTION

Bank has led an aggressive effort to manage the quality of its interactions with customers. In pursuing a customer relationship management (CRM) business strategy, the stated objective of the bank is "to capture the full potential of our customer base through the use of customer information to deliver the right solutions in a consistent, professional manner at every point of contact." This Tower Group Research Note investigates the steps Bank has taken to build and fortify its CRM capabilities within the realm of customer knowledge. This Note also investigates the analytics and customer decision capabilities that provide the backbone of the bank's CRM activities. Bank has embraced CRM as a critical business strategy and has been actively pursuing this mission for approximately three years. While the bank has pursued technologies that enable CRM through both customer interaction and customer knowledge, it has made particular strides in the areas of customer knowledge, decision, and the use of advanced analytics. At Bank, gathering and mining customer data to better understand and serve customers is a critical imperative that is yielding success

II. TECHNOLOGIES DRIVING CRM

The technologies that can be described as CRM-related fall into two categories: gathering and mining customer data, and the execution of strategies at the customer interface. Exhibit 1 provides an overview of the key technologies within these two key spheres.

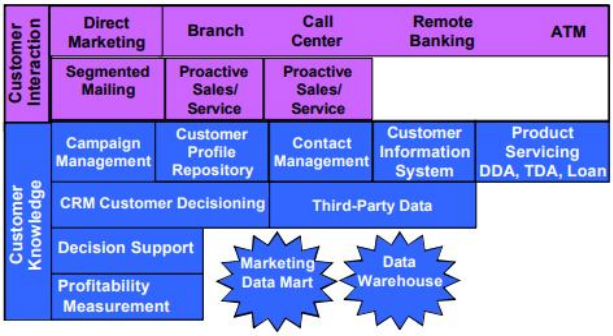


Figure 1: customer interaction with bank

Although customer interaction technologies are critical to the execution of a CRM business strategy, it is the customer knowledge capability that enables the creation of customer-specific strategies for sales and service. Simply put, customer knowledge capability drives the CRM business strategy, and the customer interaction technologies deliver it. It is precisely these capabilities in the lower sphere, labeled customer knowledge, at Bank excels.

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III. CRM AT BANK

If a driving factor in pursuing a CRM business strategy was the need for consistent communications with customers across its consumer lines of business, the key enabling factor for the bank has been the wealth of historical customer data available in the Bank's Teradata data warehouse. As the bank sought to address the issue of consistency of approaches, it quickly realized that the challenge would be to parse customer data into its most meaningful aspects and to distribute that data to the consumer touchpoints. As the bank has experimented and worked to deploy CRM strategies within its banking network, the concept of CRM is divided into two areas. CRM was viewed as integral to the marketing of products and services within the bank, but it was also seen as a discipline for managing customer interactions. The quality of customer interactions was believed to be integral to the customers' expectations and loyalty to the bank. CRM was soon viewed as a discipline that not only could help banks offer the most appropriate products and services to customers but also could ensure that the customers' interactions are customized based on the individual's current and potential value as a client.

IV. BANK'S FIVE MAJOR CONSUMER CUSTOMER SEGMENTS

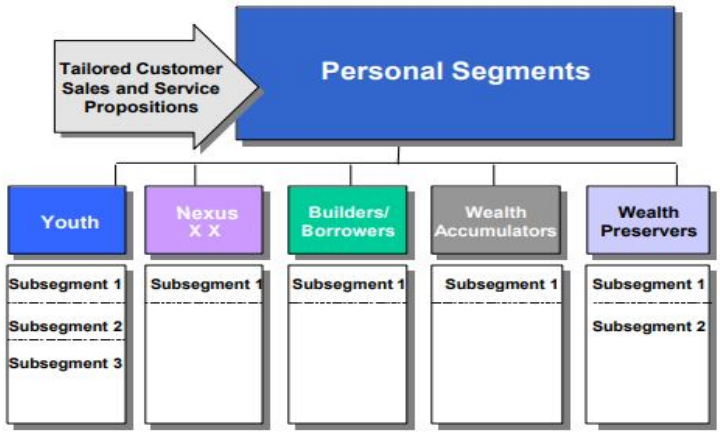


Figure 2: banks five major consumer customer segments

While there are nine delineated customer segments (5 personal, 4 business), Bank currently identifies hundreds of sub-segments through the combination of other indicators. Thus, the customer segment labeled as Wealth Accumulators can be sub-segmented to refine strategies and tactics further. Wealth Accumulators may have a common desire to create wealth, but the means of doing so (i.e., attitudes toward investment and tolerance of risk) varies across the segment. Bank has found that creating sub-segments allows more precision in the sales/marketing arena and in the effort to customize interactions with customers.

This segmentation has served as the foundation for reorganizing the Personal and Commercial platform, which occurred in November 1999. This does not mean, however, that the individual lines of business have disappeared. In this new organizational plan, the bank strives for a multidisciplinary approach to marketing and sales. Cross-functional teams work together to understand the segments and sub-segments, and how best to approach customers with sales/marketing opportunities. Synergies are built through the fact that both customer segment managers and product managers have joint responsibilities for profit and loss.

A. Implementing CRM-related Technologies

As was shown in figure 1, CRM-related technologies fall into two distinct realms, those that drive strategy and those that enable execution. Bank has sought to implement technologies from both areas but has enjoyed a distinct advantage in its customer knowledge infrastructure. A fuller description of the bank's analytical and data mining strengths is presented in the next section.

As the bank looked to provide consistency in interactions through the touchpoints, it became clear that the "manned" channels would represent more of a challenge than those that are purely automated. The bank concentrated its early CRM efforts in three critical areas—direct mail; call centers and branches. Although absolute consistency across a vast branch network is not feasible, the bank sought to provide contact personnel with actionable information to make consistent decisions.

Given the thousands of customer contact employees at the bank, it would be naïve to expect or believe that interactions with customers can be completely consistent. Bank has taken a pragmatic approach that provides actionable uniform customer information to the touchpoints, acknowledging that bank staff will then use that knowledge as appropriate during contacts with clients.

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V. CRM ANALYTICS AT BANK

The backbone of the CRM efforts at the Bank has been in the customer knowledge realm. The bank has had an unusual advantage in this regard as a result of its well-established client information file. Recognizing the value of this corporate asset to its CRM efforts, the bank has embraced a maxim of analyzing customer information as sophisticated as possible in a centralized back-office function so that the execution of customer strategies is facilitated for customer contact personnel. And over the years, the bank has actively sought to improve its ability to mine, analyze, and understand the data that resides in its warehouse. At present, the core responsibilities of the Strategic Marketing Research and Analytics (SMR&A) group are (1) customer profitability measurement, (2) customer decisions, (3) segmentation, modeling, and other advanced analytics, and (4) primary marketing research.

A. Staffing of Strategic Marketing Research and Analytics

1) The SMR&A department at Bank got started in 1995 with one senior manager on staff. Since that time the staff has increased to approximately 25. At present, the staff is a diverse group with varying fields of expertise and educational background (statistics, economics, MBAs) contributing a wide range of skills and experience. The unifying factor among staff members is proven business experience and acumen.

2) Given the experience and diversity in the staff, the bank has consciously chosen to deploy leading-edge technologies available in financial services. The bank recognizes that an important motivation for the staff is getting the chance to use sophisticated tools in the pursuit of what are often intractable business problems. The challenge of difficult business problems and the quality of tools available are critical motivators for these highly specialized staff members.

3) Furthermore, at Bank, there is a strong integration of market research and analytics, which is an uncommon model. Market research, analytics, and CRM client decisions are on the same team. In many organizations, these groups compete for resources and rarely work together, missing the opportunity of leveraging each other's insights regarding a customer.

B. Early Analytical Efforts

Although the SMR&A group began its mission in 1995, the bank has long had an interest in analyzing customer data. As an example, the bank has measured customer profitability across the retail customer base since 1992. In its current environment, Bank uses the Value Analyzer profitability system from NCR to create a comprehensive view of customer contribution. Profitability measurement and the refinement of such provides a clear illustration of the bank's longstanding commitment to refining its capability to capture and mine its customer data to improve its relationships with customers. Profitability measurement is complemented by several other strategic client models, such as credit risk; potential; lifetime value; vulnerability; commitment; consolidation; channel preferences, etc. Customer attrition provides an example of a business problem that the Bank recognizes as difficult to address, especially partial attrition. Although the bank had access to volumes of customer history, the required time series and individual client patterns make this task difficult. Since customers tend to close accounts over time, the bank finds it difficult to identify the early warning signals when a customer relationship is just starting to deteriorate. By comparison, it could predict the likelihood of a customer terminating his or her entire relationship with the Bank very effectively. As a result, product attrition rather than customer partial attrition became an early focus of the SMR&A group.

C. Current Business Challenges

While the early efforts of the analytical group were often product-focused, the purview of the group has widened significantly to include the optimization of the customer experience. Besides developing product campaigns that are accurately targeted to customers, the SMR&A group has now expanded to include two key customer-oriented strategies:

1) Marketing & Sales emphasizes predicting the products and services that individual customers are likely to purchase shortly. Rather than starting with a product or service, the group analyzes the needs of high-value potential customer segments and determines the products and services with high propensities for purchase in the customer segment or sub-segment. The specific product and service recommendations are appended to a customer profile database that is displayed on the desktop of contact personnel across the organization. With the application of advanced analytics to the marketing and sales process, Bank routinely achieves marketing response rates of 15–20%, and rates of 30–40% are not uncommon for high-performing cells.

2) Customer Experience emphasizes ensuring the customer interaction is appropriate and consistent for the customer regardless of the channel being used. Within Bank, the imperative to manage the customer experience is the realization that every interaction can enhance or damage a relationship. Since the vast majority of interactions with customers involve a service request and are not clear sales opportunities, the bank has put a heavy emphasis on standardizing the decision-making related to customer service. As an example, proactively setting a courtesy overdraft (OD) limit for every customer and ensuring that these decisions are managed centrally allows Bank to standardize interactions.

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D. Building Individualized Customer Relationships

It is important to recognize that relationships with customers vary significantly. Every Bank customer has a relationship with the bank, but the nature and definition of the relationship vary according to the needs and requirements of the customer. As an example, some customers have no interest in being recognized by bank personnel when they contact the institution—for these customers low prices or speed of service are the dominant properties of the relationship. For other customers, highly personalized interactions are the most important aspect of their relationship with the bank.

To facilitate that optimization, SMR&A at Bank has grouped customers into four categories according to its strategic objectives:

1) Retain existing profitable customers
2) Grow and strengthen customer relationships
3) Manage and control customer credit risk
4) Optimize costs.

Customers are scored according to their profitability, credit risk profile, vulnerability to attrition, and projected lifetime value. Then they are placed in one of 14 categories depending on their scores across the bank's four strategic objectives. Essentially, the scores assigned to customers drive the CRM strategy creation within the bank, whereas the segment code serves as a proxy for the client's needs.

E. Analytical Techniques for CRM

The SMR&A group at Bank is committed to using a variety of analytical techniques. From experience, the bank has learned that no one technique can support all of its business requirements. Typically the SMR&A group will try several techniques concurrently and then select the most appropriate approach for the business problem to be solved. Figure 3 lists some of the techniques commonly in use at Bank, albeit the nonparametric approaches are used to a lesser degree.

Parametric Models	**Analysis Techniques (The user selects an appropriate model for the data to be analyzed and then estimates the parameters of the model.)**
Genetic Algorithms	A computer-based method of generating and testing combinations of possible input parameters to find the optimal output. Uses processes based on natural evolution concepts such as genetic combination, mutation, and natural selection.
Neural Networks	A complex nonlinear modeling technique used to predict outputs (dependent variables) from a set of inputs (independent variables) by using an activation function to make nonlinear transformations of linear combinations. Neural nets are often applied to predict future outcome based on prior experience. Example: A neural net application could be used to predict who will respond to a direct mailing.
Factor Analysis	A statistical technique for uncovering common sources of variability in data. Example: Used to uncover the underlying factors in investment returns. Limitation is that the factors are statistical constructs and are not easily associated with economic or financial variables.
Cluster Analysis	Algorithms for finding groups of items that are similar. Example: An insurance company could cluster customers according to income, age, types of policies purchased, and prior claims experience. Divides a data set so that records with similar content are in the same group, and groups are as different as possible from each other.
CHAID	A statistic that assesses how well a model fits the data. In data mining, it is most commonly used to find homogeneous subsets for fitting categorical trees as in CHAID. It relies on the chi-squared statistic to split the data into small, connected data sets.
Statistical Regression	Equation that allows algebraic expression of the relationship between two (or more) variables. In particular, indicates the extent to which one can predict some variables by knowing others, or the extent to which some are associated with others.
Logistic Regression	A generalization of linear regression. Used for predicting a binary variable (with values such as yes/no or 0/1). Example: Modeling the odds that a borrower will default on a loan based on the borrower's income, debt, and age.
Non-parametric Models	Used when certain assumptions about the underlying population are unknown. Often more powerful than parametric tests for detecting population differences when certain assumptions are not satisfied.
Bayes Theorem	A technique for estimating the conditional probability of a cause given that a particular event has occurred.

Figure 3: parametric and non-parametric modeling techniques

F. Decisioning Capabilities

While the advanced analytical techniques described above allow Bank to mine customer data, it is the rules-based decisioning engine that moves the bank closer to putting the data into action. Each model is run every month to produce scores and statistical evaluations of customer behavior. The decisioning engine incorporates these scores so that decisive action can be taken when interacting with customers. As shown in figure 4, Bank takes the output of the modeling process along with other selected internal and external data to provide input to the decision engine. These data points combined with defined business rules in the decision engine, create actionable customer strategies.

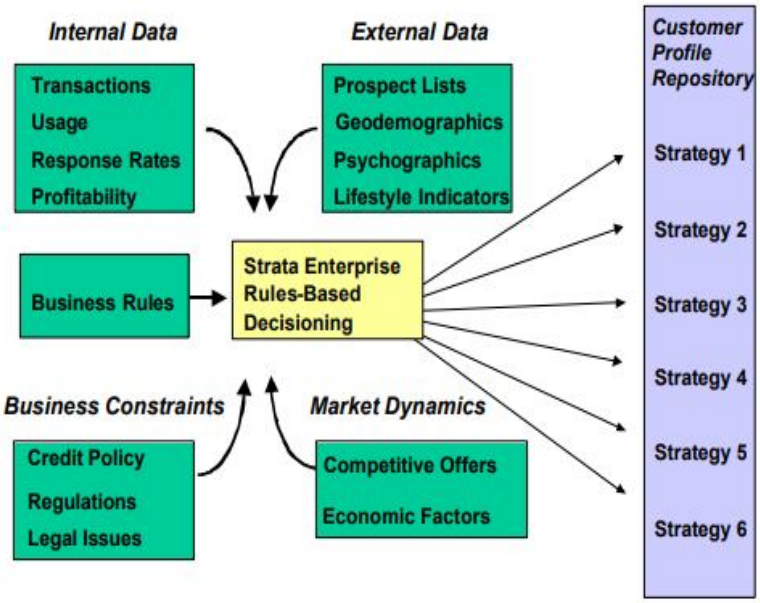


Figure 4: Modeling and Decisioning process at Bank

Actions resulting from the customer strategies are stored in a Customer Profile database that is displayed to call center and branch personnel on their desktops. Bank plans to display these actions to other channels such as the Internet in subsequent phases of its project.

VI. CONCLUSION

Serving the consumer market for financial services is an enormous undertaking. The geographic span of the country is huge, and the needs of consumers are varied and complex. These realities have forced banks to rely upon technology to meet the requirements of the consumer financial services market. And as the bank has sought to refine its business strategies to include a relationship management component, the need for technology has become even more critical. Yet the bank recognizes that technology alone will not provide it with a comprehensive CRM business strategy.

An interesting aspect of the Bank's approach to CRM is that it does reflect a balance among technology, people, and business processes. While technology powers the advanced analytics that allow the bank to create meaningful and appropriate sales and service strategies, it must also rely upon well-trained personnel and CRM-based business processes if it is to be successful in building relationships with clients. The acknowledgment of this reality and the willingness to allocate resources accordingly separates Bank from most other FSIs.

Within Bank, the goal of CRM is to ensure that interactions with customers are consistent and appropriate across all the delivery channels. The bank has developed this goal out of the realization that its separate platforms serving diverse markets could easily develop conflicting customer messages if coordination efforts were not initiated. Consistency and appropriateness in customer messages can only be achieved if critical customer information is widely distributed among all points of customer contact.

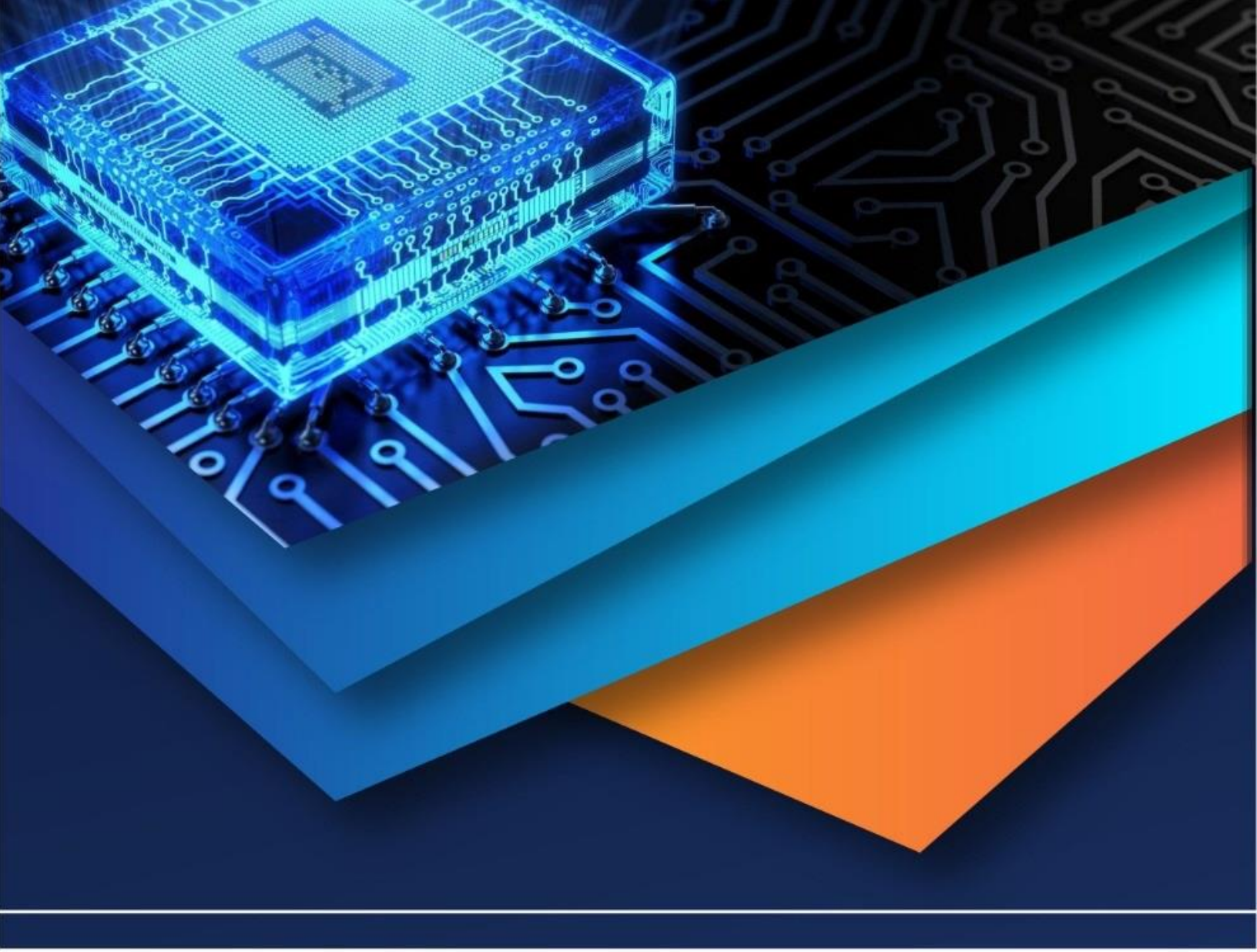
At present, Bank is storing customer sales and service strategies in a centralized profile repository. Branches and call centers are supported by these actions contained in the repository and are the two primary channels involved in the bank's CRM implementation. The bank's unmanned channels, such as the Internet, have not yet been incorporated into the project but have been identified for inclusion in later phases.

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