



SAS® Customer Analytics for Banking

Lower acquisition costs, improve retention rates and increase wallet share



Overview

Banks are constantly at risk of losing customers, and in order to stem the flow, they may offer their best customers better rates, waive annual fees and prioritize treatments. However, such retention strategies have associated costs, and you cannot afford to make such offers to every single customer. The success and feasibility of such strategies is dependent on identifying the right customer for the right action.

Identifying which customers are most likely to leave is just the first step; you must also be able to subsegment customers at risk of attrition into those customers most likely to respond positively to specific offers. Likewise, cross-selling and up-selling campaigns also should be targeted at those customers most likely to respond to and be accepted for offers.

SAS® Customer Analytics for Banking turns raw data into insight that banks can use to manage marketing strategy intelligently and increase customer retention. The integrated software infrastructure enables business users to analyze complex customer behavior hidden in large volumes of historical data.

Challenges

- **No single view of the customer.** Customer data often resides in multiple operational systems across different lines of business, leading to disparate and duplicate customer data.
- **Inability to predict customer behavior.** Inconsistent and incomplete customer data, plus lack of collaboration across departments, make it hard to build effective behavioral models.
- **Ineffective or nonexistent segmentation/customer profiling.** Early withdrawals and low retention rates jeopardize opportunities for recovering acquisition expenses over the long term.
- **Decreased customer loyalty.** Increased competition continually erodes customer loyalty.

You can then use that information to answer critical business questions, such as which customers are likely to try a new product and which are likely to leave the bank entirely.



Better understand and drive decisions related to customer profitability

Key Benefits

SAS Customer Analytics for Banking enables you to:

- Create a single view of the customer.
- Uncover new sales opportunities and increase wallet share.
- Improve retention rates.
- Reduce marketing costs.

Key Differentiators

Only SAS Customer Analytics for Banking provides you with:

- Superior data management capabilities.
- A banking-specific data model and prebuilt analytic capabilities.
- Improved productivity via user-friendly interfaces and intuitive, Web-based reporting.

How SAS® Can Help

SAS Customer Analytics for Banking delivers specific analytical techniques to help you understand and drive decisions related to customer profitability. The solution enables you to segment customers according to a multitude of variables – demographics, geographies, account history, etc. – to create more meaningful and targeted marketing programs.

The solution helps you improve retention rates by determining causes and predicting future customer attrition. In addition, by applying analytics to historical data, you can increase revenue and wallet share by knowing which customers are good candidates for cross-selling and up-selling.

Create a Single View of the Customer

SAS Customer Analytics for Banking consolidates all customer data into one place – regardless of source. The solution cleanses the data and transforms it to provide a complete picture of the entire customer relationship. In addition, the solution:

- Supports both customer-centric and household-centric views.
- Delivers consistent, accurate, verifiable and up-to-date information.
- Includes a comprehensive warehouse data model that serves as a single version of the truth and standardizes banking data elements to ensure consistent terminology and reporting.

Uncover New Sales Opportunities, and Increase Wallet Share

Fast and accurate segmentation, model development and management for all consumer-banking products give you greater insight into retention and cross-sell/up-sell strategies. Predictive analytics (e.g., decision trees) can help you identify potential cross-sell and up-sell prospects. Easy-to-use segmentation capabilities enable analysts to better understand which customer characteristics lead to reduced usage and attrition. That understanding can then be used to experiment and identify specific groups for model development or action.

Improve Retention Rates

SAS Customer Analytics for Banking lets you develop, validate, deploy and track customer analytics models with greater speed, more flexibility and at a lower cost than outsourcing alternatives. You can perform ongoing, on-demand scoring of new and existing customer applications to identify the best customers for retention and cross-sell/up-sell strategies. Detailed analytics, such as cluster analysis, give you insight into the major factors that influence customer retention, and an accurate early-warning alert system identifies those customers likely to leave in the future.

Reduce Marketing Costs

SAS Customer Analytics for Banking enables you to connect offers to the right customers using predictive analytic techniques based on demographic, geographic and behavioral data across the organization.

Capabilities

Superior Data Management

An enterprise data management environment lets you access data from virtually any system in any form (e.g., bureau, application, billing-payment and transaction data), transform and cleanse data, and handle data migration projects – all through a versatile environment that is easy to deploy. In addition, the solution provides:

- An easy-to-access, consistent, robust data mart for integrated data extraction, householding/deduplication, mapping and loading capabilities.
- The ability to add custom fields to the comprehensive banking data model.
- Wizards for accessing source systems, creating target structures, importing and exporting metadata, and building and executing data ETL process flows.
- A dedicated GUI for profiling data and identifying and repairing source system issues, while retaining the business rules for later use in ETL processes.
- Data cleansing and augmentation, and can be customized for real-time processes.
- Enterprise connectivity to data sources – ODBC, IBM DB2/UDB, Microsoft Access and Excel, Microsoft SQL Server, Netezza, Oracle, Sybase, SAS, Teradata, core banking systems and more.
- Support for unstructured and semi-structured data.
- Data quality embedded into all processes.

- Data cleansing provided in native languages, with specific language awareness and localizations for more than 20 worldwide regions.
- Out-of-the-box standardization rules that conform data to corporate standards, plus the ability to build customized rules for special situations.
- An interactive GUI that enables data stewards to profile operational data and monitor ongoing data activities.
- Customized and reusable data quality business rules that can be accessed directly within process job flows.
- The ability to migrate or synchronize data between database structures, enterprise applications, mainframe legacy files, text, XML, message queues and a host of other sources.
- The ability to join data across sources for real-time access and analysis.

Banking Data Model

A comprehensive, scalable data model provides a single version of the truth for an enterprise data warehouse covering all key banking areas. Historical data is stored at a granular level to support all reporting and analytical requirements. The solution supports all consumer-lending products and has the flexibility to extend to new lines of business as needs arise. The solution also includes:

- A comprehensive dictionary that describes thousands of banking data elements.
- A complete mapping of physical data structures to business terms.
- Both logical and physical data models – e.g., ERwin data models and SAS metadata.

- The ability to be deployed in multiple databases, including SAS, Oracle, Microsoft SQL Server, Teradata and DB2.
- Business data definitions consistent with global banking data standards.
- A customer analytics-specific data mart with hundreds of derived and aggregated variables to facilitate analytics and reporting.
- Support for a variety of business issues.

Reporting and Business Intelligence

Comprehensive, easy-to-use business intelligence software provides insights to empower users at all levels to make better decisions faster. Capabilities include portals and dashboards, report viewing, report building, advanced data exploration, Microsoft Office integration, guided analysis, metadata management, guided SAS OLAP cube creation and application development. In addition, the solution includes:

- A Web-based, interactive reporting interface for business users.
- Query capabilities for all levels of users across multiple BI interfaces.
- The ability to slice and dice multidimensional data using a special slicer dimension and by applying filters on any level of a hierarchy.
- Critical first-alert, call-to-action dashboards that let you detect and preempt scorecard instability, as well as deliver performance information to executive management and other decision makers.
- Dynamic business visualization tools for interactive data exploration, visual queries and more.

- Access to SAS capabilities for data access, reporting and analytics directly from Microsoft Office, including Word, Excel and PowerPoint.
- Wizard-driven report creation within Microsoft Office tools.

Data Mining and Predictive Modeling

SAS Customer Analytics for Banking enables data miners and business analysts to create highly accurate predictive and descriptive models based on the analysis of vast amounts of data within the bank. Results can be shared throughout the organization to deliver analytical information and incorporate models into business processes. The solution also includes:

- A powerful set of interactive data preparation tools for optimally addressing missing values, filtering outliers and developing segmentation rules.
- An unmatched suite of predictive and descriptive modeling algorithms, including: decision trees, neural networks, memory-based reasoning, hierarchical clustering, linear and logistic regression, associations, market basket analysis, sequence and Web path analysis, and more.
- A convenient GUI application for exploring segmentation and creating data sets for model development,

including creating variables on demand without requiring code development.

- The ability to combine model predictions to form a potentially stronger solution (e.g., averaging, voting and maximum).
- Model evaluation to compare multiple models in a single framework for all data sources.

Why SAS®?

Superior Data Management

Only SAS gathers all customer data into a single version of the truth by pulling together data from *all* touch points and distribution channels. The solution also automatically validates data as part of the data integration process so you can be confident in its integrity throughout the organization.

Banking Data Model and Prebuilt Analytics

SAS helps you jump-start your analytic capabilities with banking-specific logical and physical data models. In addition, SAS enables you to:

- Reduce costs and implementation time with prebuilt customer data marts and predictive models.
- Accurately forecast customer behavior using SAS' powerful predictive analytics.
- Analyze data for trends to segment markets, determine customer value and calculate retention scores that

provide early-warning indicators when a key customer's behavior is about to change.

Greater Productivity

Only SAS provides prebuilt processes and analytic techniques with a ready-to-deploy architecture specifically designed to address a wide range of banking business challenges, which boosts the productivity and self-sufficiency of your business analysts and subject matter experts. In addition:

- A guided, user-friendly interface enables business analysts to develop predictive analytical models for customer analytics, including those for segmentation, retention, cross-sell and up-sell.
- SAS' award-winning business intelligence technology enables intuitive, Web-based reporting.
- A portal framework hosts scorecarding, dashboards and other reporting capabilities to disseminate information throughout the organization.
- Business users have ready access to online reports containing performance data in historical comparisons with drill-down capabilities on the latest key metrics, such as line of business revenue and retention rates.

About SAS

SAS is the leader in business analytics software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions delivered within an integrated framework, SAS helps customers at more than 50,000 sites improve performance and deliver value by making better decisions faster. Since 1976 SAS has been giving customers around the world THE POWER TO KNOW® www.sas.com



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