



Buyer Case Study

SAS Enterprise Decision Management at a Global Financial Services Firm: Enabling More Rapid Implementation of Decision Models into Production

Brian McDonough

IDC OPINION

The goal of decision management is to combine analytics, process management, collaboration, and rules management functionality to support more consistent and accurate decision making. Decision management has long been addressed through analytic applications for specific decision processes as well as component technologies such as predictive analytics and business process management software. It has only been in the past few years that decision management platforms have emerged to combine component technologies in an integrated offering. Vendors of these platforms first addressed the need for integration between rules management and analytical modeling to better address high-volume transactional decision making. The goal for implementing these platforms has been to build greater intelligence and automation into a wide range of decision processes. These offerings have quickly added features and functions to enable better collaboration between business analysts and model developers, with features for data discovery, visual rules modeling, model development, and testing prior to deployment in a production environment. A financial services company implemented a decision management platform from business analytics vendor SAS Institute to improve its ability to run analytical models in production environments. The financial services company was already mature in its use of business analytics, including the development of predictive models with SAS Enterprise Decision Management, to optimize decisions in the credit risk department. The financial services company realized several benefits from the implementation:

- Model deployment times were reduced by an estimated 75% because of the capability of SAS Enterprise Decision Management to take tested models running real operational data and make them available in the production environment. This included model integration with operational systems to give all employees involved in the credit risk process instant decision support based on the latest models and rules.
- The capability of SAS Enterprise Decision Management to take tested models running real operational data and make them available in the production environment reduced the need for line-of-business employees to rely on IT for custom development and implementation every time a model or decision tree needed to be added to the production environment. This enabled the credit risk managers to be more self-sufficient and agile in responding to changing decision requirements while relying on trusted data from a data warehouse.
- The rules management capability and process design functionality enable business analysts to rapidly adjust actions that the financial services company's frontline employees take based on changes in policies and processes intended to optimize business outcomes. The integration between the functions of SAS Decision Manager enables modelers to focus on their tasks, with feedback and collaboration from the business user.

IN THIS BUYER CASE STUDY

This IDC Buyer Case Study outlines how the credit risk department within a Western Europe-based subsidiary of a financial services company implemented a decision management software platform from SAS Institute. The document discusses the challenges the organization faced prior to the implementation, the process of implementing the software, the benefits realized by the organization, and the lessons learned that can assist other organizations in deploying decision management software.

SITUATION OVERVIEW

The decision management software market is expected to grow rapidly over the next five years, as new products have emerged from leading vendors to address the need to combine historical data analysis and predictive analytics with time-appropriate decision making. When a decision management solution is developed, it can be applied to a broad range of continuous business problems such as determining what product to offer to a customer, which machines to service before they break, or which insurance claims to pay.

In the case of the financial services company, the credit risk department was finding it cumbersome to move analytical models into the production environment where they could support the decision-making requirements of employees involved in supporting credit risk processes. These include agents who are making decisions on which products and services to offer clients with direct, individual contact. The financial services company came to the conclusion that a decision management software platform would help solve this problem.

Organization Overview

The financial services company is a subsidiary of a global financial services firm based in Western Europe. Within the company, there is a business intelligence (BI) department that directly reports to the CEO of the financial services company. This group implemented the decision management platform to better support the credit risk department's needs. As part of the organization's information infrastructure, the BI department supports the analytical needs of the entire unit, including reporting, data discovery, and data warehouse maintenance. The credit risk department develops and tests models before deploying them into production. It was the BI and credit risk departments that made the case to invest in a decision management software platform within the financial services company.

Challenges and Solution

The credit risk department faced a challenge of implementing analytical models into its production environment in a timely manner. The models analyze customer portfolios for risk levels based on daily batch analysis, and when a portfolio has fallen out of acceptable risk levels, a frontline employee is prompted to contact the customer to adjust the portfolio accordingly. The work to move models into production required custom development from the separately run IT department that resulted in a slow time to market for new decision policies and practices. The credit risk department was already using SAS tools for model development, and after a discussion with the SAS account manager of the department, it learned that SAS Enterprise Decision Management might be the answer it was seeking for deploying models into production.

The credit risk department was already familiar with building models with SAS tools, and SAS Enterprise Decision Management provided an integrated way to move models into a test environment, to use production data to assess the effectiveness of a model, and to deploy a model into production where the output of the model would directly influence decisions made in a variety of customer channels. The solution was implemented in about two weeks, with consulting support from SAS over the first week, followed by phone-based support until the software deployment was completed.

SAS Enterprise Decision Management is made up of three modules:

- **SAS Decision Manager** enables the financial services company to manage how decisions from a predictive model will be used in conjunction with established rules as part of ongoing business process decision support.
- **SAS Business Rules Manager** enables the financial services company to create business rules that support the operations of the credit risk department.
- **SAS Model Manager** enables the financial services company to manage its portfolio of models, making it easier to update models and reuse previous work efforts when applicable.

With SAS Enterprise Miner and SAS Enterprise Decision Management, the financial services company develops models, manages the portfolio of models, tests the models, builds and manages rules and workflow, and deploys the models into production.

Results

The financial services company had long been using analytical models to support decision making within its operations in the credit risk department. The credit risk department, ever looking for ways to improve its ability to support the business, questioned whether there was a better way to move models into production. The discovery of a decision management platform provided the results the financial services company was seeking, including:

- **Faster time to market of analytical models.** These models are based on the significant work efforts of data scientists, business analysts, and business managers and make the efforts to optimize business results actionable. Getting the models into production faster enables the organization to begin realizing results sooner.
- **Improved collaboration among all stakeholders.** The financial services company was familiar with modeling, but it lacked the rules management and decision tree design capabilities that SAS Enterprise Decision Management offered to its business analysts. Now business analysts can collaborate with data scientists on a solution to a business problem or to capitalize on a new opportunity that ultimately results in the presentation of decision options through the operational systems used by frontline employees. This collaboration resulted in improved understanding of the factors that drive operational results and faster time to production for new solutions.
- **Improved accuracy of predictive models.** The financial services company's use of SAS Decision Manager gave the company the capability to monitor and test how a model would perform using the same operational data it would be analyzing once it's put into production. Because the implementation of the models is shortened, the credit risk department can spend more time tuning the models.

- **Gains in model performance over time.** Predictive models change over time as buyer behaviors change, and the credit risk department can more readily evaluate and improve production models as this model degradation occurs.

The financial services company expects future uses of SAS Decision Manager could address optimization needs in other processes within the organization. The financial services company currently has plans to apply its lessons learned to other product management groups and sees the possibility for improving its compliance processes, although no formal project was under way to address compliance at the time of this interview. The rules management capabilities could help the organization conform to regulations that often change frequently within its industry.

ESSENTIAL GUIDANCE

The financial services company's experience demonstrates how organizations with advanced analytics maturity can still benefit from the additional capabilities offered by a decision management software platform. The reductions in time to implement and the flexibility offered by reducing the IT bottleneck to deployment yielded the results the financial services company set out to achieve. Decision management platforms only emerged over the past couple of years, so it will likely be more analytically mature organizations that adopt the platforms first. The financial services company and the experiences of other early adopters are a good source for guidance to organizations considering the solution:

- **Ensure the information infrastructure is in place to support model development based on history.** In the case of the financial services company, its team was already discovering variables in the data that would be good predictors of desired outcomes and developing models that predict these outcomes. The company also had the benefit of a dedicated BI department that supported a data warehouse.
- **Consider which operational systems need the output of a decision model and ensure integration points are available.** Making the decision outputs actionable requires they are moved into operational systems where frontline employees are taking action.
- **Put checks and balances in place so that models are thoroughly reviewed before entering them into production.** With ease of implementation comes the temptation to move models too quickly into production by business users. Set appropriate permissions and establish policies for testing, documentation, and final approval. This is especially true if IT is removed from the process of implementation. The financial services company's dedicated BI department reports directly to the CEO as a check and balance against being influenced by the agendas of either the lines of business or IT.
- **Focus decision management efforts on a particular process that would benefit your organization through the optimization of that process.** High-volume transactional decisions that improve through better predicted outcomes, and enforced policies through rules, will be ideal processes to target with a decision management platform.

Related Research

- *The Changing Competitive Landscape of Analytics Service Providers* (IDC #IcUS24556213, December 2013)
- *IDC MaturityScape Benchmark: Big Data and Analytics in North America* (IDC #245197, December 2013)
- *Collaborative BI and Performance Management Vendor Decisions Targets Operational Decision Making* (IDC #IcUS24555613, December 2013)
- *Close the Loop: The Value of Measurement Processes on Improving Big Data and Analytics Project Outcomes* (IDC #245068, December 2013)
- *Worldwide Business Analytics Technology and Services 2013-2017 Forecast* (IDC #245099, December 2013)
- *Worldwide Big Data Technology and Services 2013-2017 Forecast* (IDC #244979, December 2013)
- *Worldwide Business Analytics Software 2013-2017 Forecast and 2012 Vendor Shares* (IDC #241689, June 2013)

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-insights-community.com
www.idc.com

Copyright Notice

This IDC research document was published as part of an IDC continuous intelligence service, providing written research, analyst interactions, telebriefings, and conferences. Visit www.idc.com to learn more about IDC subscription and consulting services. To view a list of IDC offices worldwide, visit www.idc.com/offices. Please contact the IDC Hotline at 800.343.4952, ext. 7988 (or +1.508.988.7988) or sales@idc.com for information on applying the price of this document toward the purchase of an IDC service or for information on additional copies or Web rights.

Copyright 2014 IDC. Reproduction is forbidden unless authorized. All rights reserved.

SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration. Other brand and product names are trademarks of their respective companies.
107217_S127248.0714

