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VW Bank Reduces its Credit Risk

With the aid of rule-based software, this financial services provider evaluates the risk factors for loans to corporate clients.



FOTO: VOLKSWAGEN AG

There is probably a low risk of default with this customer's fleet.

BY KARIN QUACK*

By the time Basel II took effect, it was clear to the banking industry: risky loans are expensive, even if complications never develop. That's because the amount of equity that has to be reserved increases with the —theoretical— dan-



Ratings can really set banks apart from the competition, maintains Florian Grasshoff, risk management expert

ger that the customer will not be in a position to meet its obligations. Risk evaluation becomes all the more important.

The more precisely a bank can estimate its credit risks, the more freedom the bank supervisory authority will grant it with respect to equity reserves. Institutions that use the Internal Rating-based Approach (IRB) can measure their risks more precisely than the standard credit

risk approach. That puts them in a position to deploy their scarce equity resources more efficiently (See "What does Basel II say?").

There's Nothing Off the Rack

The goal of Volkswagen Bank GmbH (VW Bank) was first to implement the IRB basic approach and then achieve certification from the bank supervisory authority. The bank kept a sharp eye on contracts with dealers and corporate contracts in the process. While they do not constitute the majority of contracts, they represent a large volume of business. To evaluate the risk of default in both of these business segments, a rating model was developed internally and implemented in the form of a rule-based application. The starting signal for what came to be called Project "Carat" (Corporate Assessment and Rating Model Administration Tool) was fired in 2006.

Of course the bank used a rating procedure prior to that date, according to Florian Grasshoff, part of the VW Bank risk management team. It was based on the Microsoft Access database and put in

good service in its day, he continued. But that tool could not meet the IRB requirements in two important regards: versioning and audit-security were not there and, according to the risk manage-

Best Practices

- ♦ VW Bank decided to implement the basic IRB approach rather than the standard credit risk approach.
- ♦ Implementation of the advanced IRB approach is planned but no date has been set.
- ♦ A far-reaching reorganization of bank structures was associated with the project.
- ♦ A multi-stage selection process uncovered the best-suited product from among a dozen candidates.
- ♦ The requirements were defined jointly with the representatives of the business departments.
- ♦ VW Bank and Innovations, their software partner, were engaged in constant in-depth discussion.

ment expert, could only be achieved at great expense.

What is more, VW Bank intended to link its rating system to operational applications, for example, SAP's Central Business Partner that contains customer master data files. That would not have been feasible with the Microsoft-based tool either.

Which is why the bank decided to develop a new system. "There was nothing available off the rack," explained Grasshoff. "In the end, rating systems are one area where banks can set themselves apart from the competition."

Modeling Rules without IT

The project team relied on support from Innovations Softwaretechnologie in Immenstaad (Germany). Their software tool, Visual Rules, won out over an even dozen competitors through several rounds of their selection process. As Grasshoff explained, the following criteria were critical:

- ◆ Web capable
- ◆ Multi-lingual
- ◆ Multi-client capable
- ◆ Central data maintenance
- ◆ Standard interfaces to link to operational systems
- ◆ SAP-certification of the partner

Visual Rules offers first of all a rule engine that maps a variety of rules for diverse customer groups. An administration tool supports VW Bank's technical experts in creating the necessary rule

What Does Basel II Say?

The term "Basel II" refers to all the regulations for a new supervisory architecture that the **Basel Committee for Banking Supervision** has suggested in recent years. Since January 1, 2007, these rules apply to all banking institutions and financial service providers in EU member states, according to the EU directives. They were incorporated into **German law** through the credit law, "Minimum Requirements for Credit Management" (MaRisk) and the Solvency Regulation (SolV). The goal of Basel II was to improve the **measurement and management** of bank risks. According to Basel II, both expected losses — with "value adjustments" — and unexpected losses must be covered by equity. There are **three methods** to evaluate credit risk: starting from the standard credit risk approach through the IRB basic approach to the advanced IRB approach.

The Project in a Nutshell

Type of project: Implementing a risk management system for lending

Industry: Financial services providers

Scope: For 200 analysts in 20 national companies

Product: Visual Rules from Innovations, Oracle database, SAP Business Warehouse (BW)

Provider: Innovations Softwaretechnologie, Immenstaad (Germany)

Goal: Certification of the IRB approach according to Basel II and resulting optimized deployment of equity.

Time schedule: Product selection mid-2006, rollout in November 2007

Current status: Launched in Germany and the U.K.

Next step: Rollout in France, Spain, Italy and Belgium

models themselves, "relatively simply, thanks to drag and drop," Grasshoff was happy to discover. "That gives us independence from the IT division in that respect." Revisions made to a model are automatically replicated through to the front end templates.

Corporate Data via SAP XI

The new rating software is based on an Oracle database. The balance sheet and corporate data required for risk evaluation are supplied from various operational systems, including a number of SAP applications, via XI interfaces (SAP Exchange Infrastructures). This allows VW Bank analysts to save more than time compared to manual input; they also reduce the risk of errors in the process.

The input and output information for each rating procedure are then stored in an SAP-BW warehouse, along with their entire history. That makes it possible to create evaluations including all important rating details such as, for example, an overview of assigned rating classes.

What finally sold Grasshoff on the Innovations tool in particular was the role concept, that is, the option of automatically assigning authorizations. Working together with the software supplier, VW Bank developed a work flow management system that should lighten the analysts' work load: they receive their own personal work inventory from the system, where they can administer their ratings. Once tested, the system changes the rating's status from "draft" to "confirmed." After that, the rating can no longer be revised. There are also predefined work flows for more complex processes with graduated transitions.

Valid for Twelve Months Tops

Each rating is valid for a maximum of one year. The system reminds the responsible analysts of the re-evaluation automatically four weeks before the

twelve months expire. If a "default reason" occurs, such as a customer filing for bankruptcy, the CARAT system automatically generates a new rating.

The actual implementation phase lasted from mid-2006 (product selection) to autumn 2007 (German rollout with all the interfaces). Grasshoff was not interested in discussing costs, but he did reveal that the project team comprised four of VW Bank's own employees—more precisely, three team members and the project leader. They were joined by two to four Innovations employees who were on site continuously from March to July 2007.

"With a great deal of effort, the project was finally brought in on time and on budget," Grasshoff reported. The rollout in the U.K. should occur on January 1, 2008, and the German office is supposed to transfer to the system before then. "The timeframe was actually quite tight," the risk management expert recalled.

Looking back, the project leader emphasized two of his team's achievements in particular as "best practices." That would be first the joint determination of requirements with the business departments' representatives and, secondly, the fact that misunderstandings were cleared up quickly through indepth internal discussions with Innovations, the software and service provider.

After the on-schedule go-live in Germany and the U.K., Spain, France, Italy, Belgium and 14 other national companies are set to follow. In all, the system is designed for about 200 users. VW Bank anticipates the Basel II test this year. Thanks to CARAT, Grasshoff is optimistic about the outcome. ◆



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