



Success Story

Industry:
Banks

Division:
Risk Management

Target:
Measurement of Credit Risk
According to the IRB-
Approach of Basel II

Result:
Development of a Web-
based Platform and
Modeling of 6,000 Rules
in only 4 Months



Rand Merchant Bank South Africa

Basel II: Measurement of Credit Risk According to IRBA

Target: Update RMB's Risk Management in Conformity with Basel II:

In June 2004 the Basel Committee published the International Convergence of Capital Measurement and Capital Standards, commonly known as Basel II. Basel II aligns the capital-measurement framework with sound contemporary practices in banking, promotes improvements in risk management and is intended to enhance financial stability. The Internal Ratings Based (IRB) approach allows institutions to provide their own 'risk inputs' – probability of default, loss estimates, etc. – in the calculation of capital requirements. The calculation of these inputs is subject to a strict set of operational requirements to ensure that they are robust and reliable. The inputs are incorporated into a 'capital-requirement formula', which produces a capital charge for each loan or other exposure that the institution makes.

RMB's Rating Models Did Not Meet the Requirements of Up-To-Date Auditing

RMB intends implementing the IRB approach and therefore needs to meet these strict operational rules. Its head of wholesale credit ratings and portfolio analytics, Rautie Nel, considers his company to be very well positioned in this regard. RMB's rating system can be described as a hybrid system which makes use of statistical models while incorporating a qualitative overlay into the final credit risk metric. But despite the outstanding quality of RMB's rating models, until recently the rating models did not meet the requirements of up-to-date auditing as far as processes were concerned. Rautie Nel states: "The models, which were implemented in Microsoft Excel, did not have the necessary controls in place and no history of the ratings that were generated was readily available. Moreover, it would be difficult for a bank applying for the IRB approach to meet the operational requirements of Basel II with an Excel-based solution for its rating models."

Search for a Solution to Transfer Rating Models into a Process-oriented Solution

RMB remained true to its corporate motto – Traditional values and Innovative ideas – in its search for a solution that would transfer the bank's rating models into a process-oriented solution. The bank found this solution with Innovations Software Technology, a global company. Their Business Rules Management System Visual Rules makes it possible to integrate business analysts' know-how simply and flexibly into business processes.

With Visual Rules Business Analysts can Define, Test and Document the Bank's Rating Models Independently

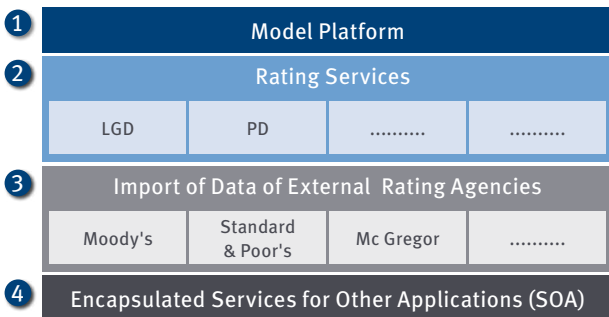
RMB started with the most important ratings for the evaluation of credit risks: the probability of default (PD) and the loss given default (LGD). To represent these rating services, 6,000 rules had to be defined. The rating models for the divisions with the most significant impact on capital requirements have been implemented. The number of possible services runs to more than 20. Step by step, these services have been implemented in Visual Rules. While at first this was done in close cooperation with Innovations Software Technologie's Visual Rules professional services, Rautie Nel can now work with these new services independently.

Rule Services as a Web-Based Environment for 80 Bank Analysts

A web-based work environment was created for the 80 Rand Merchant Bank analysts. The final credit risk metric includes hard facts such as the ratings of external rating agencies as well as soft facts, e.g. the evaluation of a company by the bank's analyst. Based on these metrics, the Model Platform displays the results.

Rating Models are Used as Encapsulated Services for Various Applications

The bank's results are SOA (Service-oriented Architecture) components, which are rule services building blocks that can be used by a variety of applications as encapsulated services. This feature is particularly useful for RMB: the ability to offer business logic as encapsulated services ensures that the rating models can be utilized extensively, offering investment protection and elegant solution for both operational and strategic requirements.



Rand Merchant Bank (RMB)

Rand Merchant Bank (RMB) is the investment banking arm of FirstRand, one of South Africa's largest JSE-listed financial services groups. RMB operates both in South Africa and internationally. In South Africa, RMB operates from offices in Johannesburg, Cape Town, Durban and Port Elizabeth. Internationally, RMB operates through its parent company, the FirstRand group.

Innovations Software Technology

Innovations Software Technology provides products and services for Business Rules Management. For banks it offers IT solutions in Risk Management, Compliance and Client Management.

Information on trademarks:

Visual Rules is a registered trademark of Innovations Software Technology.

Basel II at RMB: A Highly Dynamic Project to Update Risk Management

"To bring a high dynamism to the entire process in the headquarters in Johannesburg, RMB decided to cooperate closely with the Visual Rules Professional Service Team."

Kai-Uwe Schwarzwälder
Head of Professional Service,
Innovations Software Technology

The tasks of Professional Service were:

- 1 Development of a web-based platform for 80 Bank analysts to accomplish the rating processes.
- 2 Model and test 6,000 rules using the Business Rules Management System Visual Rules and provide as rating services.
- 3 Provide the basis for the import of data of external rating agencies.
- 4 Integration of rating services into the service-oriented architecture of the Group.

"The new solution offers a number of organizational and legal improvements in risk assessment. And, as a person who thinks strategically, I like the fact that, thanks to Visual Rules, business logic can be used so flexibly."

Jacques Mouton – Head of Large Corporate Credit and member of the Credit Committee, Rand Merchant Bank
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