Keywords
Credit policies
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Internal rating
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Strategic credit management in the Italian small business market

_by Fabrizio Arboresi

Map of Rome

Credit scoring small businesses can be a challenge, especially in Italy, where company structures and reporting requirements are complex. Here the author explains the approach taken by Banca di Roma. Taking a phased approach, credit scoring becomes just part of the progression towards automated decisions and ratings.

In Italy, the business market consists of many different small and medium companies. According to the statistical analysis provided by the Italian National Institute of Statistics (Istat)[1], 69% of the Italian companies are individual companies, 18% unlimited companies, 11% limited companies, while 98% of all businesses in the marketplace have less than 20 employees.

You can imagine the weight and importance small businesses have in the client portfolio of banks and financial institutions, especially since this segment is characterised by homogeneous behaviour such as:

- Short geographical distances between the company and banks.
- The relationship between client and bank is mainly managed in the banks' branch office.
- The contact person the bank deals with is often the company owner, whose behaviour is similar when he or she acts as a private person or for their business.

This scenario has encouraged the banks to reorganise the way in which they manage this segment. From one end by creating skilled personnel – like small business consultants – at the other end by reorganising the credit processes in a more automated and quantitative way. This approach guarantees not only decision processes that are more objective, accurate, consistent and fast, but also provides direct control over the market credit policies.

Credit scoring for small business assessment

Credit scoring is a measurement tool to value client solvency, through statistical analysis of client risk. The hypothesis at the basis of these models, applied to the small business segment, is the traditional one.

There exists a limited number of critical variables such as background details of the company/owner/partners, financial information, available public information, etc. These variables contain enough information to classify applicants based on their risk profile using a representative sample of applicants as the basis for comparison.

In this calculation solid companies and companies that have high future solvency probability are distinguished from those that have not. The models enable the valuation of the small business client throughout its life cycle – starting from the moment of application to renewed application. This then moves onto calculating the behavioural score to periodically (eg, monthly) value the client portfolio. It will also automate the credit renewal and monitor – in terms of sales development – the effect of the action undertaken.

The implementation of these methods for risk control enables banks to manage relations one to one with clients in a more effective and efficient way. It also allows banks to continuously control the quality of the credit granted on a portfolio level.

Start-up and custom models

The choice to adapt a credit scoring system for small business is included in a more articulated process to revise the entire risk control strategy. This enables the business to reduce decision time and to unify assessment criteria.

Scoring has become an urgent need for the Italian banks, because of the elevated costs of distribution and of risk that characterise this market segment. In addition, the revenues could be increased, where today – compared to the turnover – the margins are reduced.

The development of the models starts from the analysis of information that, with some continuity in time, characterises the institutions' clientele and that reveals the relationship between them and the behaviour of the companies. In this way a strong decision support tool is created for risk assessment that meets the specific requests of the banks for the small business sector.

In case the institution does not have all historical information available necessary for a customised model, it may use a start-up solution. From a methodological point of view, the development of the start-up models is based on different samples of companies of various types and from different regions.

Using a generic model – especially one based on bureau data – is the best way to represent the Italian small business market.

It will also supply a risk control instrument in the application phase for:

- Sole traders and companies for which the financial information is not available.
- Unlimited companies that produce a balance sheets or equivalent documentation, for instance a formal tax declaration from where we can deduce financial information.
- Limited companies – and possible sole traders that present a complete balance sheet.

Using a start-up solution will enable the banks to familiarise themselves with scoring tools, to smooth the evaluation process, through the automation of decisions. The processing of credit requests through scorecards allows the bank to acquire and conserve all permitted client details. The aim is to subsequently refine a standard model or to develop a customised one.

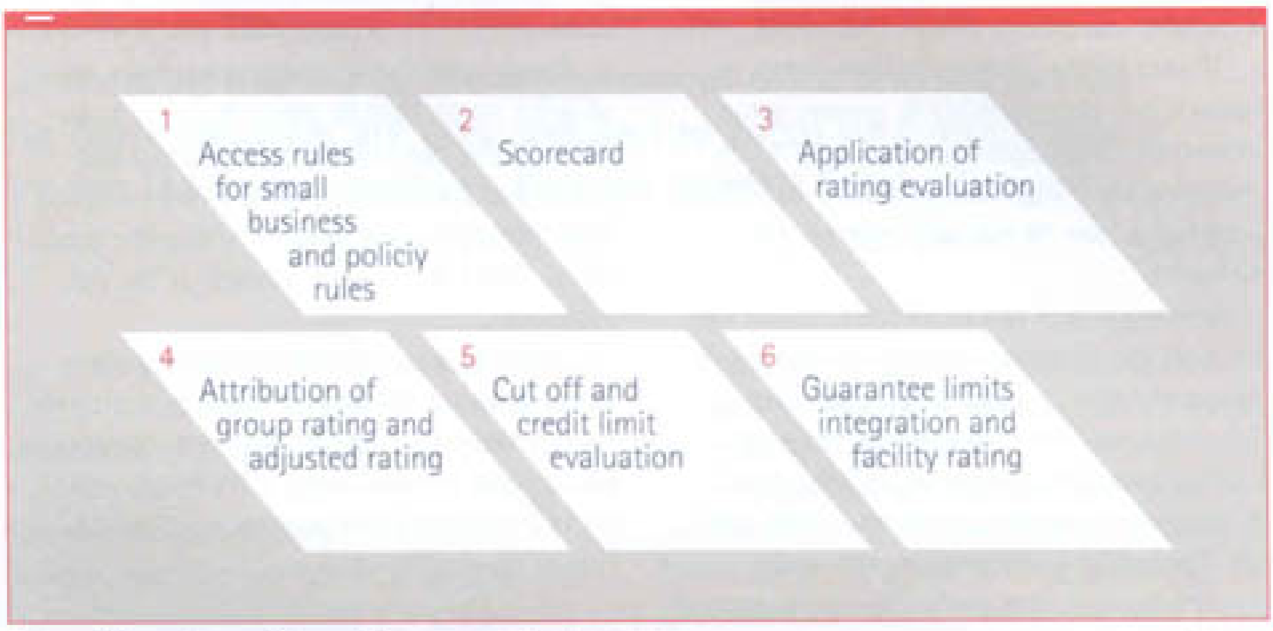

Figure 1: The phases of the credit management programme

A case study of the Banca di Roma

The score calculation is the core of the decision process. The score is derived after using a series of filters, applied to small businesses as well as to individuals connected and after satisfying specific requirements of the segment. The entire decision process may be easily managed with software tools connected to the information systems of the bank. In this way procedures will be simplified and easy to use and transparent to users.

This direction has been taken by the Banca di Roma. They have introduced an internal decision support system dedicated to the small business portfolio aiming to:

- Evaluate customers at the first application.
- Evaluate customers for credit line renewal.
- Eliminate paper work at branch level.
- Automate the credit process.
- Unify the decision process, and make it more homogeneous and consistent.
- Include, in the credit process, all connections that the company has with other companies and to provide a total risk evaluation.
- Attribute an expected credit risk score, to each client, which feeds internal rating systems.
- Monitor the credit quality.

The project at Banca di Roma consisted of the development of personalised scorecards and the installation of a decision engine.

The development of scorecards and the results

The starting point was to perform a quality portfolio analysis of Banca di Roma's clients. Using this, as well as the different information available on different companies, four segments were identified with specific scorecard for each single segment:

- New clients with a public/official balance sheet.
- Existing clients with a public/official balance sheet.
- New clients with only a tax/fiscal unofficial and simplified balance sheet.
- Existing clients with only a tax/fiscal unofficial and simplified balance sheet.

> **"The starting point was to perform a quality portfolio analysis of Banca di Roma's clients. Using this, as well as the different information available on different companies, four segments were identified with a specific scorecard for each single segment."**

To define "small business" a cut-off was based on the revenue and on the different type of company. Giovanni Felisari, credit manager at the Banca di Roma, Italy, says: "the performance analysis produced by the scorecards, has demonstrated how their use in a decision process contributes to the reduction of the number of non-performing companies that obtain a loan, in respect to other decision support tools without scoring. It results in a better client selection in the application phase and cost reduction due to minor credit loss and collection costs."

The advantages from an operational point of view are also significant. The implementation of the scoring systems has automated many phases of the decision process enabling the operation to smooth out decision procedures and to reduce time and resources involved.

This is an important improvement since the assessment of small business clients meant many costs in respect to the guaranteed revenues of this segment. These aspects do not only occur at the moment of application and credit renewal: by ordering the clientele on a risk basis, also monitoring can concentrate on the most risky customers rather than treating the whole portfolio at the same detailed level.

From scoring to rating

The redesign of decision processes for small businesses is not only limited to credit management. Fundamental components have been: the determination of the internal rating (counter party and facility); the group treatment; the quantification of possible credit limits; and the assessment of the credit guaranteed.

The implementation of a decision engine at Banca di Roma and the consultancy in the process of strategy design have made it possible to design complete application and renewal processes. The stages of this process are indicated by the logical schedule in *figure 1* (above).

Each phase necessitates specific analytical skills, methodologies and specialist experience

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in the segment. This made it possible to deal with different critical aspects of the credit management programme and to resolve them with tailor-made and efficient solutions.

Thanks to the project with the Banca di Roma it has been possible to answer some frequently asked questions that arise when analysing small business portfolios. The classic question is how to evaluate judgmental elements.

Scoring allows you to calculate credit risk, through the application of algorithms based on quantitative and qualitative information. This represents the fundamental basis for Internal rating that, however, is influenced by the final decision taken by the credit analyst. Through this method you can order your clientele in nine performance classes and three fail classes.

Another question is: which is the best approach to deal with company groups? When dealing with credit assessment, a bank takes into account the possibility that different companies may have the same owner. The approach has been to pass to a calculation of group rating. The rating is separately calculated for every single company. These are then adjusted as a group, based on the ratings of the other companies that are part of the group.

The approach can also help with the issue of what credit limit to grant the small business. On the basis of the rating group and other characteristic elements of the company, algorithms are used to identify possible credit limits. These are specific to each of the risk categories.

Similarly is the problem of how to introduce collateral. The possible collateral granted, from a generic or specific type, may determine an upgrade of credit limit. It therefore represents a necessary component in the calculation of the facility rating.

Conclusion

Italian banks have been slower to take up credit scoring than many of their European counterparts. The high proportion of very small businesses and sparse reported information has been the main reason.

The project by Banca di Roma has shown that these concerns are unfounded. By building models appropriate to each type of Italian company, credit scoring has provided many benefits for the assessment of small business credit quality.

The scorecard has been used for more than accept/decline decisions. It is an integral part of the decision process, also assisting in the establishment of credit limits and collateral. Scorecards were also used to set a cut-off to determine the definition of "small business".

Perhaps most interesting, for Italian banks, was the ability to assess companies on a group basis. By combining scores of individual small companies in a group, an overall assessment of the risk was provided for the first time.

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Reference

1. Statistics are available from their website. www.istat.it/english/italy2001.pdf