Optimizing the credit decision process

Boosting profits in the SME market
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Financial-services institutions struggle to profit from lending to small and medium-sized enterprises (SMEs). Margins are low, regulation is on the rise, and competition in the segment has led to even more pressure on profits. Only by implementing risk-adjusted processes and automating many of the steps involved can banks hope to profit in this challenging arena. Creating such a lending system can reduce costs, speed up credit decisions, and boost the quality of the overall loan portfolio.

Building an optimized, risk-adjusted processing model involves four steps: (1) designing a more granular customer segmentation scheme; (2) determining the appropriate credit rating factors; (3) implementing a credit decision engine that can evaluate loan applications effectively and efficiently; and (4) embedding these elements into a loan portfolio approach, with early warning tools and feedback loops that can validate the criteria used and ensure that the portfolio stays within the desired risk–return boundaries.

Banks that succeed in implementing optimized SME processes will gain a distinct competitive advantage, will increase market share in the SME segment, and will have the ability to leverage the SME client relationship in order to cross-sell additional products.
Challenges in the SME loan segment

In many countries, the turmoil in the financial-services sector has made it very difficult for business and corporate customers to access desired loan facilities, despite the current low-interest-rate environment. Due to higher capital requirements and the need to deleverage, many banks have been unwilling or unable to lend.

This has become particularly true of loans to the small and medium-sized enterprise (SME) segment. As opposed to many large corporate clients, which enjoyed lower refinancing rates than many banks, SMEs cannot easily tap into the primary market. In addition, even before the crisis, the SME segment held limited attraction for banks — especially large international banks.

This situation has deteriorated further in the wake of the financial crisis. In addition to the higher capital requirements and the decline in interest rates, the drying up of the secondary market has limited the ability of financial institutions to securitize SME loans in order to balance their credit portfolio. Moreover, intensified competition has put renewed pressure on margins as banks adopt more regionally specific strategies and shift their focus away from lending.

Given such a market environment, is there any chance that banks can turn SME lending into a profitable business line? We think the answer is yes. The most reliable way to improve profitability in the SME segment — indeed, in every client segment, from the smallest to the largest — is by optimizing the entire end-to-end credit process, from origination and credit analysis to credit approval, pricing, and administration.

This report focuses on the development of a risk-adjusted processing model designed to avoid overprocessing and ensure that banks maintain their desired risk–return profile in the loan portfolio. In a future report, we will describe further levers for reducing processing costs, particularly in credit administration.
Optimizing profitability

Achieving competitive differentiation in the SME credit market requires banks to use new approaches in making lending decisions for specific customer segments. Banks that get this element right will have three clear advantages. They can:

• Reduce credit-processing costs by routing credit applications through a more automated and streamlined decision process based on a risk-adjusted process model.

• Increase revenue potential by making faster credit decisions, especially for borrowers with good credit. Fast credit decisions are a high priority for many clients; banks that can deliver them increase their likelihood of completing the transaction.

• Achieve better risk–return profiles by establishing predefined risk limits for the loan portfolio and optimizing pricing decisions, taking into account capital and liquidity costs.

Four steps are required to build an optimized credit decision process: customer segmentation, rating process differentiation, process standardization and automation, and process and portfolio validation (see Exhibit 1, next page).

Customer segmentation

The first step is particularly important, yet it is one that banks often somehow neglect: segmenting the customer base with specific product offerings. This step is critical in designing a more granular process map, and it must be done in close cooperation with the risk function. The objective is to break out customers of different sizes and needs, then build the loan approval process around those segments.

Many banks use only a small number of credit processes, typically aligned along their traditional business segments (see Exhibit 2, page 8). Decisions on loan applications for the smallest business customers, for
Exhibit 1
Four steps to optimizing credit processes

1. Customer segmentation
   – Categorize clients using appropriate variables, including:
     - Client size
     - External client credit rating
     - Desired product features
     - Client relationship

2. Rating process differentiation
   – Define risk-adjusted differentiation along the process chain
   – Define risk-adjusted rating modules and approaches

3. Process standardization and automation
   – Analyze and determine automated process steps for the rating decision engine

4. Process and portfolio validation
   – Test and pilot the decision engine and validate it against manual decision results
   – Monitor effect on overall portfolio results

Source: Strategy& analysis
**Exhibit 2**
Traditional segmentation of credit application processes

<table>
<thead>
<tr>
<th>Segment size</th>
<th>Business customers (&lt;x millions of €/US$)</th>
<th>SMEs (x-y millions of €/US$)</th>
<th>Large corporations (y-z millions of €/US$)</th>
<th>Multinationals (&gt;z millions of €/US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td>“Plain vanilla” credit line</td>
<td>Structured finance</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

- Extensive cash-flow analysis
- Extensive multinationals process
- Extensive rating analysis
- Scoring

Source: Strategy& analysis
example, feature a credit scoring process like the one used for retail customers. Typical medium-sized and large enterprises follow a standard corporate rating process, and the largest multinationals are put through a separate process, given the size and complexity of their businesses.

This approach, however, is not precise enough. Business and risk managers need a better understanding of the needs of specific subsegments, and must incorporate any information the bank already has about the customer into the loan application process. Therefore, information such as the history of client relationships, specific loan needs, and potential predefined loan features should be taken into account in the credit decision.

A more sophisticated segmentation opens the door to considerable efficiency gains at this critical early stage of the credit approval process. And the lessons learned about how to differentiate customers on the basis of risk elements and needs could eventually lead to a comprehensive review of the customer segmentation assumptions on which the front office operates. In turn, that would enable the use of risk criteria as relevant segmentation elements for different client service models.

**Rating process differentiation**

Once institutions have identified the appropriate customer segments, they should develop and optimize the process for determining the underlying risk and potential profitability of each loan. This is particularly important in the SME market, where past attempts to match the risk involved with each loan and its inherent profitability have been especially troublesome. The relatively small size of the typical SME loan, in combination with rising competitive pressure in this market segment, simply does not justify the regular use of extensive, and often manual, efforts by highly educated rating analysts for all applications.

The first step in building a truly efficient credit approval process is tailoring the level of sophistication used to analyze a loan application to the specific risk profile of the loan, as well as to any information the bank may already have about the customer. Thus, rather than using the same process for SME customers and larger corporate customers, banks could develop simplified rating procedures for some SME clients.

For some segments, the credit process and evaluation could happen through an automated system similar to those used for retail segments. The idea is to do this in a risk-adjusted manner. Low-volume and lower-risk products requested by clients with a solid credit history could be
routed to a simplified approach. Customers and processes can also be differentiated depending on the nature of the client relationship: Long-standing customers with very good credit ratings, for example, might be offered preapproved credit limits that eliminate the need for a completely new rating and approval process. A segmentation approach can be combined with risk-adjusted credit application tracks to form a sophisticated decision-making system (see Exhibit 3, next page).

In order to make the ratings of SME segments more efficient, institutions need to carefully evaluate each rating factor, in particular the qualitative factors. Examples are the capability of the borrower's management and the degree of competitive pressure in its industry. In our experience, although such qualitative factors can increase the discriminatory power of rating systems, they are often a main cause for intensive and long credit processes. Making the rating of SME loans more efficient involves finding the right balance between standardizing — or even eliminating — these factors and still maintaining desired and appropriate accuracy in the evaluation of applications.

**Process standardization and automation**

Once a bank has tailored the rating system for the relevant segment, the next step is standardizing and automating the process so that most credit applications require limited manual intervention.

The focus should be on standardizing all credit subprocesses and required documents as much as possible. Implementing a workflow system with automated data feeds is often a key success factor in standardizing and speeding up the process. Reaching the next level of automation and sophistication would require building a more holistic decision engine that can approve or reject the majority of loan applications through the use of predefined algorithms (see Exhibit 4, page 12).

The credit decision engine follows a layered approach. First, a “lite” rating analyzes the application along a few easily checked but decisive dimensions, to test for any immediate warning signs without going through the full rating. Criteria could include single ratios such as debt capacity or the lender’s exposure limit to any specific industry or market.

Applications that receive a red flag at this stage are automatically rejected. Those given a green flag are approved with limited direct oversight, focusing mainly on plausibility checks. If an application receives a green flag, it can then advance to a full rating, where the
Exhibit 3
Advanced segmentation of credit application tracks

Client features

<table>
<thead>
<tr>
<th>Existing client</th>
<th>New client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business customers</td>
<td>ER+</td>
</tr>
<tr>
<td>SMEs</td>
<td>ER+</td>
</tr>
<tr>
<td>Large corporations</td>
<td>ER+</td>
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</tbody>
</table>

Source: Strategy& analysis
Exhibit 4
Structure of a credit approval decision engine

Rating engine

- Risk appetite per industry/single exposure limits
- Rating methodology

Pricing engine

- Regulatory/economic capital
- Return on capital employed (ROCE) expectation

Steering parameters

Decision engine

- "Lite" rating: four to six decisive factors
- Full rating: probability of default, expected loss, loss given default

Credit approval

- Credit rejection (including rationale)
- Manual check by analyst required

Source: Strategy& analysis
final step is to determine the appropriate rate for the loan on the basis of its particular features and the portfolio’s structure. Applications that receive a yellow flag in the “lite” stage receive far more intense processing. In such cases, the rating has to be performed by a rating analyst.

It is important to calibrate the engine so that green-flag and red-flag decisions remain conservative until the bank can establish the credibility of its outcomes. All other cases should be flagged yellow, requiring a manual rating decision by an analyst. This will likely lead to a significant amount of effort early on, but it will also help ease the cultural transition to more automated processing. Over time, the share of yellow-flagged applications can be reduced so that eventually the majority of applications receive either green or red flags.

**Process and portfolio validation**

The changes we are suggesting to optimize credit application processing do not only result in fundamental shifts with regard to processes, organization, and culture. They also have the potential to alter the structure and profitability of the credit portfolio itself. Therefore, institutions should continuously monitor the portfolio to prevent problems and increase the likelihood that managers will accept the new approach to credit decision making.

A monitoring process involves creating a mechanism that applies feedback from the portfolio to each of the initial three steps in the credit decision process. First, it helps determine whether the segments have been designed appropriately, by highlighting the impact of adverse developments in certain segments. Second, it helps the lender understand whether the process has been streamlined in an appropriate way for each segment. And third, it rechecks the decision engine by highlighting differences in risk between automated and manual credit decisions (see Exhibit 5, next page).

Continuous monitoring of the feedback mechanism also supports the cultural changes required to implement the new decision process successfully. Credit analysts must adapt to the fact that not all credit decisions will pass through their hands anymore. Revamping the pay structure for analysts can also aid in changing the culture. Finally, the system should take into account more elements based on expected loss, rather than just single loan loss provision.
Exhibit 5
A portfolio feedback mechanism can validate the credit decision process

Credit applications → Segmentation → Process differentiation → Process automation

Monitoring and feedback mechanism

Source: Strategy& analysis
Historically, the loan business of the SME segment has shown low profitability levels. In reaction to the financial crisis, many institutions now focus on local banking business, and SMEs in particular. This shift — together with increasing capital and liquidity requirements — will put further pressure on the industry’s margins. In this environment, optimization of credit processes via a risk-adjusted framework can deliver key competitive advantages, including better alignment of credit processes to the specific business segment. Moreover, simplified and semi-automated processes in the SME segment enable more efficient decision making. Finally, adoption of a portfolio-wide approach ensures that the bank will adhere to its desired risk–return profile. In total, this would not only result in an optimized cost base but also enable financial institutions to capture more business thanks to faster credit decisions and more competitive business offerings.
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