



# What to Look For in a State-of-the-Art Commercial Credit Management System

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*By Peldec Decision Systems Ltd.*

White Paper

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Peldec Decision Systems Ltd • 1040 Avenue of the Americas, 24<sup>th</sup> Floor • New York, NY 10018 • USA

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**F**inancial institutions catering to commercial customers are increasingly looking for staff productivity improvements, better relationship management, as well as risk mitigation quantitative analysis tools. Today's commercial credit analysis and management software needs to address these fundamental requirements. The following paper briefly summarizes the major processes, features and functions that financial institutions should consider when looking for their next commercial credit analysis and management systems.

**I**n order to fully appreciate the possible solutions financial institutions should be looking for in a next-generation commercial credit management software system, we need to step back and establish a general framework for such a system, and determine a number of key parameters that will provide the anchor and foundation for such an enterprise system.

Commercial credit management software systems need to effectively address several conflicting and contradictory demands inherent in the credit management workflow. For example, the relationship manager at a financial institution needs to reconcile two types of behaviors. On the one hand, there is a need to be customer-centric, and offer prompt and superior customer services. On the other hand, since the institution is taking a risk when offering credit, it needs to conduct a thorough, comprehensive and prudent analysis of the potential borrower in order to rate the risk of the proposed loan. These two contradictory activities are typical of the pressures faced by loan officers and financial institution personnel.

Another example is the need for the financial institution to scrutinize the details of the loan and prospective customer – often referred to as the 5 C's of credit: Capacity, Capital, Collateral, Conditions, and Character<sup>1</sup>. At the same time, the astute credit professional cannot lose sight of the whole picture. That is, that the overall credit offered and the risk undertaken, are compatible

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<sup>1</sup> In some of the literature this is reduced down to only the "3 C's" – Collateral, Cash flow and Character. The commercial Loan Officer's Desk Reference expands this to six key words: Character, management, purpose, repayment, backup and economics.

with the financial institution's policies and procedures. This picture becomes more complex if one is dealing with a consortium or group of customers that need to be evaluated together because of business ties and inter-dependencies.

Summarizing, we end up with the following core anchors that any commercial credit software system must offer:

- A customer-centric approach.
- All-inclusive analytical abilities.
- Big picture perspective.
- On-Demand detail view.

The challenge for the commercial credit software provider is to offer a system that addresses these needs, and nevertheless is still easy for the commercial credit professional to comprehend and use.

### ONE SIZE FITS ALL?

One of the major drawbacks of existing commercial credit systems is that many of them are limited, catering to a restricted set of commercial credit customers - small businesses, mid-market companies, corporate customers, etc., as well being limited in the number of product lines (mortgages, SBA, contractors, real estate, asset based lending etc.) they can handle. This has led to a situation where most financial institutions, particularly the regional and global financial institutions that have grown through consolidation and organic internal growth, now have multiple systems to handle different commercial credit product lines and customers<sup>2</sup>. This has created significant inefficiencies, delays and generated additional costs in their back-office operations. In addition, multiple systems severely inhibit the development of robust credit risk rating models and complicate reporting for Basel II and other regulatory requirements. An optimal solution would be one that is tailored to as many customer types as possible, and is not confined to dealing with only specific product categories. It should be able to handle multiple commercial credit scenarios. Thus the financial institution would only have to acquire one commercial credit system, and maintain and nurture one database, not multiple systems.

In order to satisfy these criteria the software has to be truly modular and be easily customized to the institution's needs. There will be a need to have out-of-the-box business banking modules that address the financial institution's core constituency and that can be easily integrated into the base system. If the financial institution requires asset based lending, then modules to monitor inventory and accounts receivable would be included. If real estate is the focus, then the business banking modules included in the software package would be tailored to real estate payback capacities, etc.

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<sup>2</sup> In some cases they may even have multiple software systems to handle the same type of credit instruments and similar customer types.

The important thing is that the underlying software architecture allows modules to be slotted in and be easily customized to the financial institution's requirements. In other words, having an open system that allows the development of additional systems to be inserted into the underlying framework is of key importance. The institution can thus develop proprietary modules in the technology that it is familiar with and plug those modules into the commercial credit software framework.

In a similar fashion, there is a need to differentiate between a first time application and a credit renewal and review process. In a first time application the financial institution must undertake a thorough assessment and complete multiple business modules. Renewals should be shorter to complete, by virtue of the fact that institutions generally concentrate mainly on the financial changes, if any, since the last time credit was extended to the customer.

Time is valuable, so offering a thirty-page write-up for deciding on a \$ 50,000 loan may not be an efficient or practical means to making decisions. For evaluating a new customer, a credit committee may want a comprehensive credit write-up, but for an existing customer the decision makers only need to know the incremental changes that have taken place since the last review.

To summarize, what is needed is:

- One system to reduce duplication and costs.
- A flexible system to deal with various types of customers and product lines.
- Out-of-the-box modules that can be "glued" together.
- Ability to customize modules and add new ones.
- Ability to handle first time applications as well as credit renewals and reviews.

## MANAGING THE RELATIONSHIP

Commercial credit managers know that in order to manage the customer relationship effectively they need the tools and the relevant client information readily available. This means that time dependent customer related information must be easily and securely accessible. Examples of such information include:

- Customer's pending credit applications and renewals.
- Alerts and warnings about the customer.
- Customer opportunities, both current and former.
- Internal customer related memos and messages.
- Schedules for credit committees and dates for meetings with the customer.
- Documents and ticklers.

Ideally, they should be updatable and readable by all the individuals involved in the commercial credit process, in an organized and auditable manner. Moreover, the system needs to be flexible enough to allow integration and interfacing with other systems such as email, calendaring, scheduling, and news and alert applications that are already in place at the financial institution. By offering a centralized system that consolidates the customer interactions, such as email correspondence, telephone notes, customer alerts, customer reminders etc., with the customer's

banking information such as account and credit balances, the banking professionals will be better able to service existing loans, manage new as well as credit renewal requests, and develop new commercial customer business.

## SEEING THE COMPLETE PICTURE

**I**t is important for the credit professional that as they undertake and engage in the relationship with both existing customers and potential clients, they not lose sight of the complete picture. The individual loan or proposed loan is taking place within the context of the broader relationship with the customer, as well as the financial institution's internal policies and procedures, and external regulatory directives.

This means that a comprehensive commercial credit system needs to offer the credit professional insights and tools that complement the relationship building. These would include for example:

- A view of both the proposed credit as well as the collateral being offered. If as in many cases the collateral accounts and assets are recorded in different back-end financial systems, then the commercial credit management system has to be flexible and adaptable enough to enable multiple interfaces to different and disparate systems to coexist and present information on a single screen or form.
- Presentation of both the summary data as well as the detail pertaining to both the credit as well as collateral. Likewise aggregation needs to take place at both the account level as well as the relationship level, depending on which way the credit analyst wishes to view the data.
- The ability to easily see the interdependencies between the different relationships involved in the transaction. Understanding who the owners and executives are, is critical in order to avoid making loans to interconnected borrowers. The failure of such borrowers may lead to a domino effect, creating a large loss for the financial institutions. This comes back to the requirement not to concentrate the financial institution's exposure within a limited set of relationships – which time and again has shown to be very risky.<sup>3</sup>
- A view of the profitability and of the risk of the transaction. In fact, profitability and risk need to be in alignment, and therefore by applying risk weightings to profitability using RAROC – Risk-Adjusted Return On Capital, or similar financial indicators a much clearer indication of the true profitability is captured.
- A historical capture and presentation of the interest rates, margins, and fees charged for products and services. Such information offers the financial institution greater consistency and better decision-making abilities.
- A scalable and easily searchable document management system integrated within the single system. As with all business transactions, the selling of credit requires identification, and authentication documentation. Obviously, this applies not only to the borrower but also to the credit and collateral being considered. Likewise, such systems need to store the files (documents, spreadsheets, images etc.) in a central location that is both secure and accessible enterprise-wide.

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<sup>3</sup> "Some 70% of Wachovia's problem loans involve 15 large corporate customers...." – American Banker, April 2001.

- An effective mechanism for capturing and logging the events and actions pertaining to the commercial credit decision. This will enable internal and external examiners and auditors to gain valuable insight into the decision making process within the financial institution.

In summary, effective management of the customer relationship includes having a broad perspective, and placing that single credit transaction (or multiple transactions) within the context of the broader environment within which the financial institution operates. Specifically, it needs to address and offer solutions in the following areas:

- Credit / collateral account and entity aggregation:
  - Able to view the credit and the collateral.
  - Ability to drill down on the aggregate.
  - See relationships between borrowers.
  - Ownership concentration.
- Deposits and transactions.
- Rates and fees.
- Profitability and risk ratings.
- Historical trends.
- Integrated document management system.
- Tracking and audit of recommendations and decisions.

## FINANCIAL STATEMENTS ANALYSIS

**F**inancial statement analysis is probably the number one key risk indicator currently being used by financial institutions to assess the credit worthiness of a commercial customer. Invariably, the data in financial statements is somewhat outdated, providing an assessment of the customer's financial well being (or lack of) that was true and current several months prior. However, it is very much compulsory practice, and provides the major credit agencies and purveyors of risk ratings their main basis of analysis.

It is therefore not surprising that an effective commercial credit system needs to incorporate the following financial statement analysis features and functions:

- Capture financial statements easily and accurately.
- Support custom and proprietary ratios, including time dependent ratios.
- Offer extensive financial analysis and peer group comparisons.
- Support the use of industry comparison data, such as RMA's Annual Statement Studies.
- Support any type of industry format.
- Allow projections and automatic cash flow calculations.
- Offer flexible reporting and sharing of analytics.
- Provide central storage and support for advanced risk rating and covenant tracking.
- Support both quarterly and annual data.

In addition, global and multinational financial institutions need support for multiple currencies as well as inflation adjustment of statement data.

## RISK RATING CUSTOMERS - THE MULTI-DIMENSIONAL RATING ENGINE

When it comes to risk rating analysis, commercial credit departments in collaboration with the financial institutions' risk departments have generally relied on external agencies and some basic internally developed models using a combination of financial statement analysis and judgmental scoring. With the introduction of the Basel II Accord<sup>4</sup> there is a greater awareness by financial institutions that their competitive advantage will depend more and more on their ability to manage risk effectively and consistently, and not rely solely on subjective criteria. It is clear that behind such a commitment, financial institutions need to undertake as soon as possible a coherent effort to gather and maintain quality data. This data should not be limited to their client's financial statements, but include a broader set of factors. State-of-the-art rating systems need therefore to be able to model multiple dimensions, such as:

- Customer demographics.
- Financial statements.
- Credit bureau reports.
- Information about principals and affiliates.
- Judgmental scoring.
- Account behavior.
- Industry segment data.
- Macro-economic indicators.

Naturally, as more parameters are introduced into the model (at greater effort in collecting and maintaining), the greater the accuracy of the model. However, by at least beginning the process of gathering such data inputs now, the financial institution ensures that it will have the necessary historical depth to calibrate the risk-rating engine when future implementation is actually undertaken.

## COLLABORATION WORKFLOW AND DECISIONING

The decisioning process in commercial credit is a collaborative process undertaken by a team of people within the financial institution. Naturally, this team approach to decision making becomes inherently more critical the larger the loan amount and the greater the potential risk. It is therefore necessary to have a system that allows collaboration, eases the logistic and administrative burdens inherent in the loan decisioning process as well as shepherds

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<sup>4</sup> In June 2004, the Basel Committee on Banking Supervision released Basel II, a new capital adequacy framework for financial institutions. Whereas the 1988 Basel Capital Accord, Basel II's predecessor, focused on the amount of capital a financial institution has, Basel II emphasizes the measurement and management of key banking risks: credit risk, market risk and operational risk among others. Basel II compares the maximum losses a financial institution might suffer over the year ahead with the available buffer for the losses. It provides a methodology for a financial institution to prepare a statement comparing risk and buffer.

the work product efficiently between the different credit professionals. Such a system must have the following features:

- Workflow at the individual level.
- Collaboration and decision structures.
- Audit and compliance.
- Monitor, control and report.

By taking advantage of the sophisticated collaboration and workflow capabilities of a state-of-the-art commercial credit system, financial institutions are able to more effectively utilize their resources, in particular their senior credit professionals who can be geographically dispersed, but readily available to engage in the most important and critical commercial credit applications. Following the mergers and acquisitions of recent years, many financial institutions have multiple geographically-dispersed decision centers, so not only are the customer contacts (relationship managers) dispersed, but so too are the senior credit officers and senior executives of the financial institution. Routing and moving the “loan package” very quickly becomes a logistic nightmare, creating huge inefficiencies that may lead to lengthy delays in processing even the simplest of loan requests that are based on very sound economic and financial conditions presented by the borrower. By adopting a system with advanced workflow and collaboration capabilities, the financial institution is able to use its resources more effectively, and have the right people, at the right place and at the right time engaged in processing the credit application.

Working hand in hand with the workflow and collaboration capabilities of a commercial credit system is the decision support engine – the approval, rejection and deferral mechanism. Due to the varied types of customers and credit products, financial institutions are going to have vastly differing decisioning hierarchies, processes and procedures. For example, for simple loan applications, a positive decision by both a credit analyst and a relationship manager may be adequate for approval. A multimillion dollar relationship in which there is an application for a large new credit facility may require recommendation by two levels of credit analysts as well as the recommendation of a senior credit officer, followed by the approval of an executive credit committee. Systems that are able to handle both simple (series) and complex decisioning (parallel) scenarios offer advantages to the growing and dynamic financial institution.

## TECHNOLOGY AND ARCHITECTURE

Clearly the technology foundation underpinning these complex systems needs to be robust, expandable and secure. In addition, it is evident that a web-based architecture addresses many of the short comings of yesterday’s client-server applications, and one finds that the majority of newly installed systems, in particular at the larger financial institutions are web-based, as opposed to client-server.

There are currently two competing platforms and strategies for web-based applications – Microsoft dot-net (“.NET”) and the Java platform. Both are excellent technologies that enjoy tremendous success, and are fiercely debated over by their respective pundits and technology wonks. Within the financial services industry the general trend appears to be that the larger

financial institutions adopt more “java-centric” applications and the slightly smaller institutions favor the Microsoft dot-net technologies and platform. Clearly, this is a generalization, and many institutions can point to their successful use and adoption of both technologies and platforms. However, it is clear, that vendors able to offer technology solutions for both platforms have a broader group of potential clients, and are able to integrate their product suites more effectively with the prevailing banking systems.

When it comes to hosting the commercial credit systems there appear to be two distinct trends in the industry. Either it is deployed at the financial institution, or it is hosted externally to the financial institution. External hosted systems may be hosted either at the software solution provider or an outside “server-farm”.

Hosted application solutions are not new. In the 1960s companies would rent or lease computer hardware and software computing resources because they had limited resources to run internal computing centers.

In recent years a number of companies have returned to the hosted solution. These new Application Service Providers (ASP) have in many cases rewritten their software in order to make it function effectively in today’s Internet-enabled world. The advantages to the ASP model are generally considered to be the following:

- Feel that it reduces the Total Cost of Ownership.<sup>5</sup>
- Attractive to smaller companies, because there is no need to build up an infrastructure of servers internally. Most small companies lack the infrastructure or staff necessary to support new IT initiative and thus realize savings in the short run.
- Faster to deploy, because the solution is more canned, and the infrastructure setup is eliminated.
- ASPs feel that the shared infrastructure improves application security. Ensuring security and redundancy is an ASP’s core competency and is a significant investment.

The disadvantages are:

- Low monthly fee can be offset by usage-based pricing, e.g.. a cost per transaction which results in a high monthly payment as transaction volumes increase. Similarly, upfront fees can sometimes be zero, but the cost gets hidden in the monthly rental fee.
- Short termination agreements and early-termination fees can be expensive and leave insufficient time to find an alternative.
- Application software vendor may be different from hosting vendor, leading to possible conflicts and disputes when service level agreements are not met.
- ASPs have been known to suddenly go out of business, leaving the client in a potentially crippling situation. The financial viability of the hosting vendor needs to be carefully considered.

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<sup>5</sup> TCO concept developed by Gartner Group. - TCO generally viewed as a problematic value because of its concentration on measuring the costs and not the benefits of software and hardware systems.

- One of the concepts behind ASPs is that a generic piece of software will serve different customers and market segments – in many cases that is not so, and each segment or market needs additional functionality built into the software. The ASPs are then relegated to providing the features and functions that the majority of the companies want (“most bang for the development buck”), and not necessarily the features a particular client most needs.
- Hooking up to legacy systems becomes infinitely more complicated with an ASP solution. By avoiding integration with the legacy systems (backend credit booking, servicing etc.), one is imposing a solution on the client that is inefficient, and open to data error.
- In many cases the application is a reworked client-server application with a front-end web interface, or a heavy ActiveX control. Both are sub-optimal solutions that will not work well in client sites that have limited bandwidth, and demands that the customer have a robust network infrastructure.
- The client needs to trust that the ASP has backup facilities, rollover, contingency planning – all the components that most financial institutions already have in place to merely operate their existing backend origination systems if they are not hosted. If the existing loan system is not hosted (ASP), then there is even less incentive to move to an ASP model, since many of the processes and procedures are already in place – and only have to be tweaked to accommodate web applications.
- Since sensitive customer information is transmitted to an external entity, security of applications and data becomes an issue that needs to be addressed carefully.

In summary, outsourced ASP solutions may make sense when the hosted application software has become a commodity, and is no longer a source of competitive advantage. In these cases the ASP providers can take advantage of scale, to provide a lower Total Cost of Ownership to companies, while maintaining an appropriate level of quality and customization. In cases where a competitive advantage is to be gained, or a larger degree of customization is required, then the advantages of the ASP model diminishes. Depending on the size of the financial institution and the nature of the banking activity, both models may be appropriate.

## CONCLUSION

Ultimately, a state-of-the-art commercial credit management system must serve only a few main purposes; to increase the speed of credit decisions, to ensure the quality of the service to the clients, while supporting the quality and profitability of the decisions. Since the decisions are taken in the context of increasing requirements for regulatory compliance, increasing competition, and increasing internal requirements for risk analysis, the supporting systems must combine technologies from hitherto separate disciplines; data warehousing, process support, decision support, document management, transaction systems, CRM systems, to mention a few.

The surprising fact is that these technologies themselves are becoming commodities, so that it is now possible to build a modular framework that enables financial institutions to implement such a state-of-the-art solution, without the typical pitfalls of large software solutions. Thanks to such an approach, institutions of all sizes can now benefit from technologies that were previously only available to large institutions.

## COMPANY BACKGROUND

**P**eldec Decision Systems Ltd., develops markets and sells state-of-the-art commercial credit management software solutions to financial institutions. Peldec was established in 1990, and currently offers an end-to-end suite of products that comprehensively covers the commercial credit decisioning area. This includes:

- **ProFile** – a commercial credit management system that supports the review, analysis, collaboration and decision-making on commercial credit applications by incorporating workflow, document management, account aggregation, risk rating, automated credit write-ups, relationship management and more.
- **ProFin** - an advanced financial statements management and analysis software. ProFin offers configurable financial ratios, peer group comparisons, custom analysis reports and more.
- **ProRisk** – an advanced commercial credit risk analysis system that combines a rating engine with extensive portfolio management features.
- **ProPlan** – a high-end project financing analysis software that assists in assessing the repayment capacity of debt-financed projects.

Peldec's solutions have successfully been deployed with clients in the \$1 Billion to \$70 Billion asset range. Peldec maintains offices in New York, San Francisco Bay Area, Basel, Switzerland and Tel Aviv, Israel. For more information about Peldec and our commercial credit solutions visit our web site at: <http://www.peldec.com>.