FIS

COMMERCIAL LENDING INSIGHTS 2022

DATA-DRIVEN TRENDS IN COMMERCIAL CREDIT

Accelerating Time-to-Yes and Time-to-Cash

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FIS Insight

Why it's time to act smarter on your commercial credit data

Commercial credit decisions have long been driven by data. But thanks to exciting new technologies, a whole world of greater insight is opening up to commercial lenders and helping inform their every next move.

It's about time. Traditionally, credit analysis has been all about the customer's history – looking backward to observe how a business, its collateral and its industry have been performing to date.

Over the past decade, however, the analytics have evolved. Rather than simply describing what has gone before, commercial lenders have started to look forward and use both current and historical data to predict what may happen in the future.

Top commercial lenders are harnessing the power of digital technology to get unparalleled insight from their data.

In the uncertainty of the pandemic, the resulting intelligence has proved invaluable. But as approaches to managing corporate credit data continue to mature, the insights haven't stopped there.

Once purely descriptive, then increasingly predictive, now credit analytics are going prescriptive. In other words, today's commercial lending organizations can use data to not only foretell what might come to pass but also propose the next best action for each customer.

That's the theory. But in practice, the data that feeds commercial credit analytics comes from a wide variety of internal and external sources, making it difficult to distil into a coherent view of customer and industry performance.

The good news is that advancements in technology are coming to the rescue. And at FIS we see our clients digitally transforming the management and analysis of commercial credit data in three key ways.

First, firms are taking a more proactive approach to their data and looking to drive intelligent decisions based on holistic data insights.

Fundamentally, that means being able to gather and synthesize information on customers from across the entire lending life cycle and incorporate both historic financial reports and high-frequency account data. But more and more, digital analytics are also combining this traditional, structured form of financial data with unstructured data, such as from credit memos, news feeds and sentiment analysis.

Second, the most progressive lenders are using technologies like robotic process automation, artificial intelligence and machine learning to not only collect these insights but also generate the aforementioned prescriptive analytics and recommend the best follow-up action. With sophisticated workflow tools orchestrating their processes, lenders can automatically trigger the most appropriate and (artificially) intelligent responses to different credit scenarios, too.

Finally, with higher levels of automation and a ready supply of deeper, broader insight comes greater control over the commercial lending life cycle. The holy grail should be a fully automated, real-time framework for credit management that significantly reduces decision times, manual effort and, above all, risk with a complete, up-to-the-minute view of the customer, their industry and their relationship with your organization.

The time is right to get more insight from commercial credit data – and the smart digital technology is there to make it happen. Why wait to take the next best action for your lending business?

Matt Riggall, head of go-to-market and lending growth strategy, FIS

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Introduction

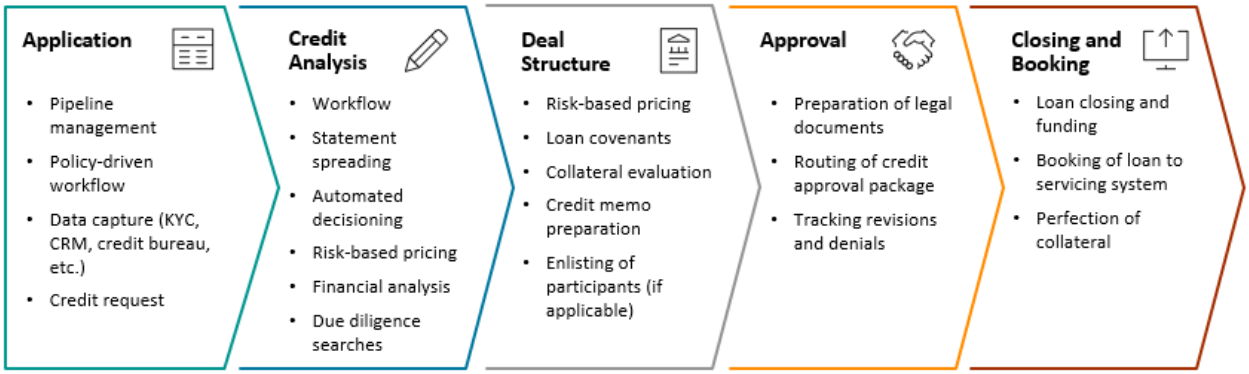
Thanks to advances in technology, a greater volume and range of data can now provide more insight than ever on commercial borrowers, their financial health, and the deals in which they are engaged. But which data sources should you mine, and how do you choose the right tools for the job?

Ultimately, financial institutions need to tackle critical data strategy components such as governance, master data management, quality assurance, architecture, infrastructure, and tools. But in the short term, a better understanding of data-driven technology strategies and tactics can revolutionize commercial loan origination, servicing, and credit risk monitoring, and provide early warning of attrition, defaults, and breaches.

Looking Backward to Predict the Future?

The commercial loan origination and underwriting process still looks the same as it did 20 years ago. It starts with pipeline management, moving onto credit and financial analysis, through to deal structuring, then preparing and revising approval documents, and finally ending with loan closing and booking to the loan servicing system. Figure 1 provides a simplified overview of a typical commercial loan origination process.

Figure 1: Simplified Commercial Loan Origination Process Overview



Source: Celent analysis

But the simplified process overview above doesn't capture the complexity of data sources and uses across the origination and underwriting process. Along the way, relationship managers, loan officers, credit analysts, financial analysts, documentation specialists, and compliance staff need data to complete their portion of the origination and underwriting process.

Banks start with internal data on the potential borrower, drawing from a CRM or sales force automation, core banking, and core loan servicing systems. They next apply data from the client, financial statements, corporate resolutions, and proof of beneficial ownership by the principals.

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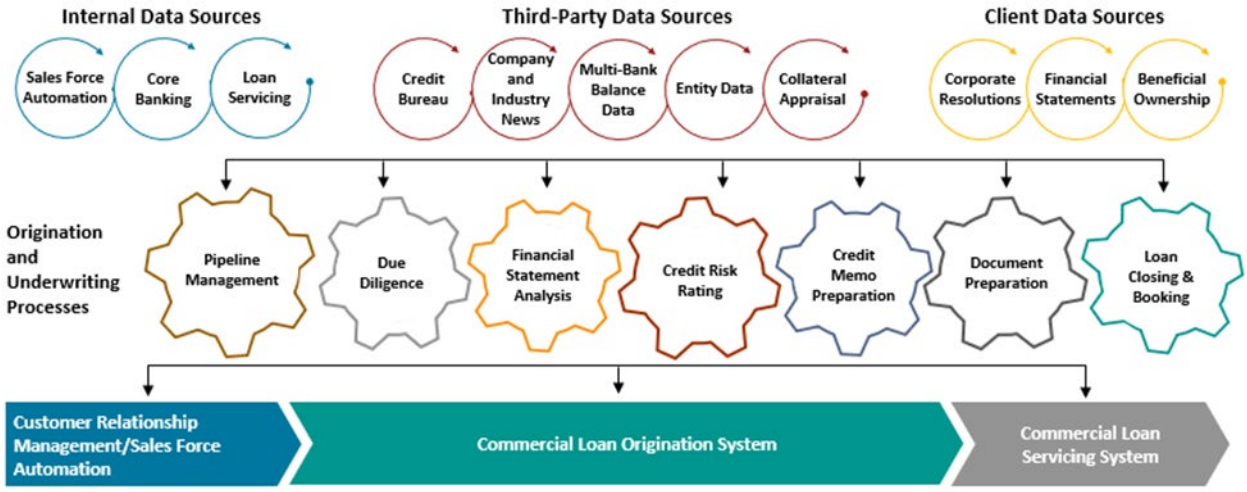
Finally, they round out the data story with the credit bureau, company/industry news, entity data, data from the borrower's banks, and perhaps an appraisal of the collateral to be pledged (Figure 2). Of course, data sources and uses differ by loan type. For example, many fewer data elements are required to approve a small business loan than a complex, syndicated loan deal involving multiple bank participants.

Figure 2: Commercial Loan Origination and Servicing – Data Sources and Uses



Source: Celent analysis

As data elements are added, the underwriting process creates a new set of data and other types of information such as credit risk ratings, cash flow analysis, coverage ratios, borrowing limits, repayment schedules, borrowing base certificates, and policy exception tracking.

Unfortunately, most banks and other lenders are still looking backward to assess the creditworthiness of commercial customers. Lending decisions, risk models, and credit ratings are based on historical financials and past business performance, typically using data gathered at the end of a customer's fiscal year.

Accelerating Time-to-Yes and Time-to-Cash

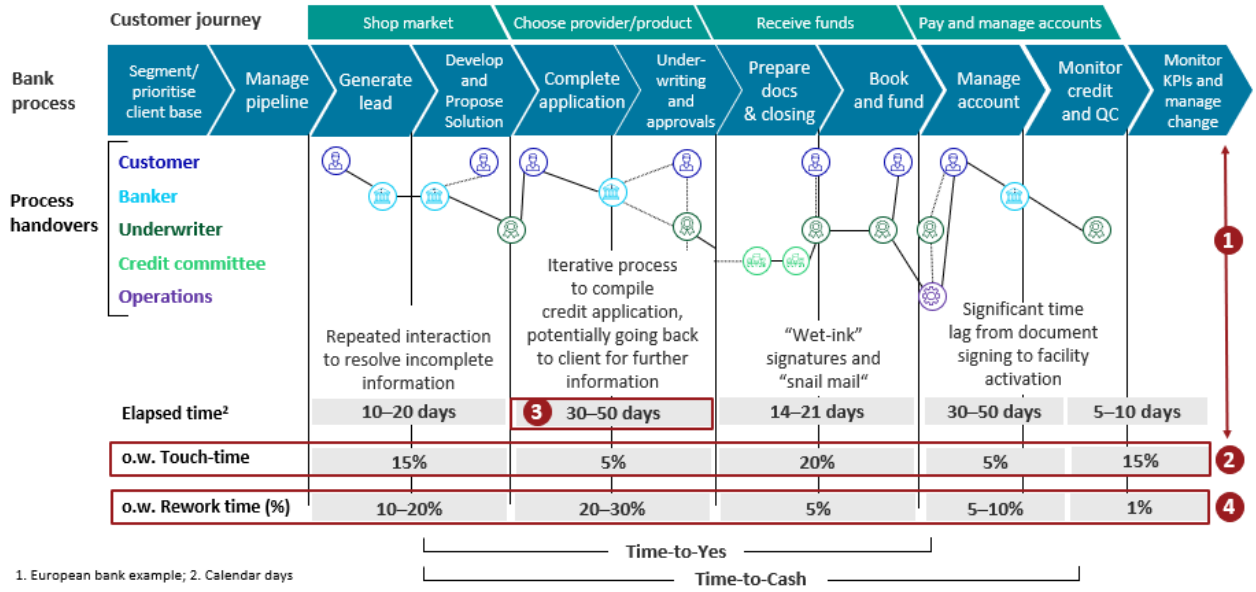
So far, the process seems relatively straightforward, but as commercial lending professionals are painfully aware, there are many pain points in the process. An analysis from Celent's parent company, Oliver Wyman, measured the elapsed time for key steps in the lending process. Adding these estimates together, we see an extended timeframe for "time to yes" (loan approval) and an even longer timeframe for "time to cash" (loan disbursement). Figure 3 highlights four key pain points:

1. **Large number of handovers**
   10+ handovers for SME; **18+** for Commercials
2. **Extended waiting time**
   Up to **~90%** of total process time

3 Significant time spent writing credit memos
~75% of time-to-yes touch time spent memo writing[1]

4 Significant time elapsed due to rework
Up to 20% of each process step consumed with rework

Figure 3: Where are the Pain Points?



Source: Oliver Wyman, Celent analysis

Regulatory Trends Affecting Data and Information Management

Evolving Regulations and Guidelines on Loan Origination and Monitoring

IFRS 9 specifies how an entity should classify and measure financial assets, financial liabilities, and some contracts to buy or sell non-financial items. IFRS 9 became effective for annual periods beginning on or after January 1, 2018. In October 2020, the IFRS 9 board decided to begin the post-implementation review of the regulation. In the wake of the pandemic, banks are discovering that expected credit loss (ECL) models have ceased to work effectively and that the models need to evolve.

The European Banking Authority (EBA) Guidelines on Loan Origination and Monitoring (LoM) specify internal governance arrangements for granting and monitoring of credit facilities throughout their lifecycles. The arrangements introduce borrowers' creditworthiness assessment requirements and bring together the EBA's prudential and consumer protection objectives.[1]

ESG Considerations in Commercial Lending

The European Commission defines sustainable finance as the process of taking ESG considerations into account when making investment decisions in the financial

[1] Guidelines on Loan Origination and Monitoring, European Banking Authority, accessed November 17, 2021

sector, leading to more long-term investments in sustainable economic activities and projects. In addition, the EBA's loan origination guidelines specify that institutions should assess the borrower's exposure to ESG factors, and where a borrower is associated with a higher ESG risk, undertake a more intensive analysis of the actual business model of the borrower.

Consideration of ESG issues is driving banks to strengthen ESG frameworks and principles into their commercial lending practices. For example, ING Sustainable Lending focuses on clients who adopt best-in-class sustainable practices and outperform their sector on environmental and/or social performance.[2] In addition, Citizens Financial launched Green Deposits in 2021, which follows an ESG framework to ensure that deposits go toward funding qualifying initiatives. In both examples, the banks use a leading third-party ESG research and data provider to provide company-level ESG risk ratings.[3]

Technology to the Rescue: The Basics and Next Level

Banks have leveraged third-party software for decades. Most banks started with **loan accounting and servicing software** for traditional bilateral commercial loans, and often ended up with several systems to support multiple loan types such as commercial real estate, factoring, and equipment finance.

After using a collection of point solutions for pipeline management, statement spreading, collateral valuation, etc., solution providers began to offer **loan origination software** to streamline application workflow and underwriting.

Workflow management is critical, either embedded in a bank's commercial loan origination system or as a separate solution overlaid on the process. A rules-based, unified workflow tool across relationship manager, credit analysis, risk, and compliance helps to address the pain points detailed in Figure 3 above, providing consistency and flexibility at the same time.

Offering a much more comprehensive approach than traditional sales force automation (SFA) or customer relationship management (CRM), **front-end dashboards and tools** empower relationship managers with a 360-degree client view, end-to-end workflow tracking, AI-enabled analytics, and data-driven predictive identification of customer financing needs.

For many years, relationship managers and other credit professionals gathered underwriting data from borrowers via telephone, fax, and face-to-face meetings. But in this digital age, banks are learning that clients prefer a self-service approach, leveraging a **borrower portal**. A self-service client portal supports full transparency on progress and status of the loan request, document upload, and digital signing, along with permissioned access to business partners such as accountants and attorneys.

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[2] Sustainable Business: How We Measure, www.ing.com, accessed September 16, 2021.

[3] Various ESG providers are discussed in Sustainability in the Capital Markets: Technology and Data Ecosystem for ESG, Brad Bailey, William Trout, and Rohan Poojara, CFA, July 2020

Technology to the Rescue: Leveraging a Data-Driven Approach

There are several flavors of technologies that banks can use to extract and manage data, whether from existing, internal data stores or from new data sources (Figure 4).

Figure 4: Extracting, Analyzing, and Managing Data

Intelligent Data Capture (IDC)

Applying optical character recognition (OCR) and machine learning to extract and interpret data.

- Automatic document identification
- Data extraction

Robotic Process Automation

Robotic process automation (RPA) is a set of technologies that enables the automation of processes that currently require human involvement.

- Logging into multiple systems to gather borrower data and enter it into origination system
- Automatically initiating reminder emails

Natural Language Processing (NLP)

The application of artificial intelligence (AI) that analyzes and synthesizes natural language and speech using computers.

- Decoding unstructured data
- Data enrichment

Data Management

The "wrangling" and accessibility of data are critical to improve loan origination and underwriting processes. Solutions include:

- Master data management
- Data lakes
- Data modelling
- Data visualization
- Data governance

Source: Celent analysis

Robotic Process Automation (RPA) is a workhorse, able to log into multiple bank systems to gather borrower data and then enter it into the origination system. RPA can also automatically initiate reminder emails and alerts, alerting the origination team to missing data or process delays.

Intelligent Data Capture (IDC) is the application of machine learning (ML) to optical character recognition (OCR). IDC can automatically identify types of documents and then extract the data.

Moving up in sophistication, **natural language processing (NLP)**, a form of artificial intelligence that synthesizes language and speech, decoding unstructured data like earnings calls, management announcements, and press releases. NLP can also enrich data, adding metadata and tags to make the information searchable, e.g., environmental, financial, sentiment analysis, etc.

Finally, it is critical to have a comprehensive **data management** strategy to tackle critical components such as governance, master data management, quality assurance, architecture, infrastructure, and tools. Ideally, data is considered a strategic asset to the organization, with centralized governance and accountability, availability of a "single version of truth," and accessible throughout the credit organization for analysis, decision-making, and reporting.

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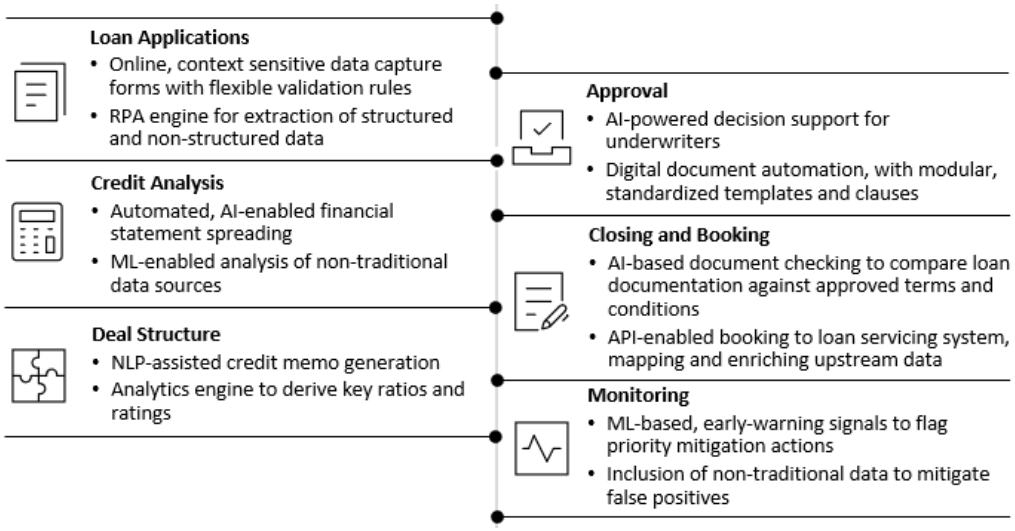
The overall goal of deploying data-driven technologies throughout the credit processes is to facilitate:

1. **Descriptive analytics**: Using historical data to **make** observations about a specific borrower or portfolio.
2. **Predictive analytics**: Using current and historical data to **predict** what might happen in the future.
3. **Prescriptive analytics**: Using structured and unstructured historical and current data to **inform** action.

What Does a Data-Driven Approach to Commercial Credit Look Like?

When a bank effectively combines best-in-class technology and data to support an efficient and automated (to the extent possible) process, we see a number of improvements across credit lifecycle processes, as shown in Figure 5.

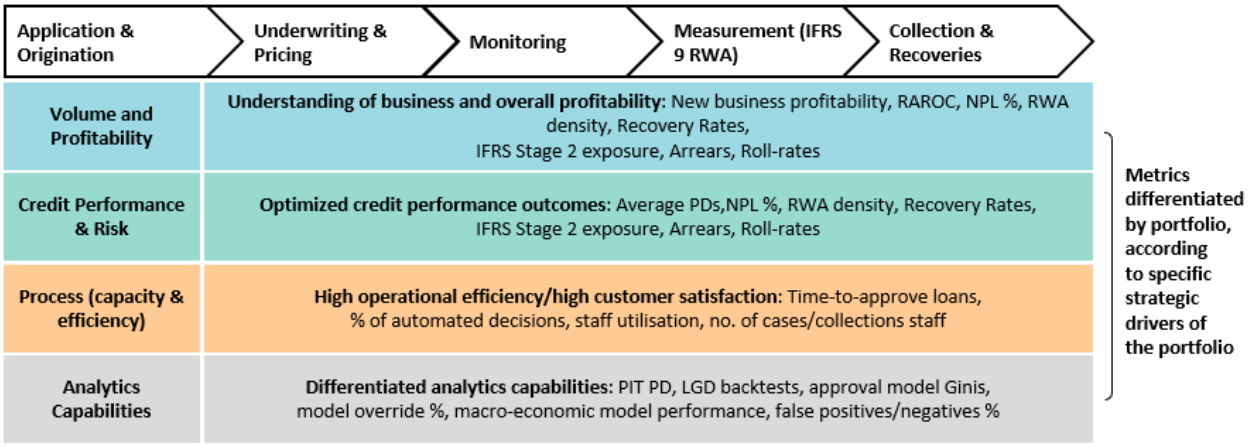
Figure 5: Best Practices in Leveraging Data and Technology



Source: Celent

An ideal credit management intelligence function spans the entire end-to-end credit lifecycle. It includes KPIs and metrics to measure profitability, credit performance, operational efficiency, customer satisfaction, and analytics capabilities. A data-driven approach to credit management intelligence and advanced analytics can generate material return-on-investment, and there is clear potential for "quick wins," both in revenue uplift and reduction in associated costs (Figure 6).

Figure 6: A Data-Driven Approach to Credit Management Intelligence



Source: Oliver Wyman End-to-End Credit Analysis.

What is a Gini?

A Gini coefficient is used to measure the predictive power of credit models. A Gini coefficient of one indicates that a model performs perfectly, while a coefficient of zero means that the model is completely random.

The Time is Now

Whether driven by regulatory, competitive, or efficiency pressures, many banks around the globe are undertaking commercial lending digital transformation initiatives. These banks have a clear vision of their future-state commercial credit function and underlying future-state IT architecture. They also focus on development and migration paths that deliver tangible improvements along the journey, building momentum and support for the program. In addition, leading banks build project teams with representatives from across the credit ecosystem, adopting an agile approach to speed up decision-making and development.

Data, analytics, and enabling technologies are integral to successful transformation projects and are critical components to helping banks maximize replatforming benefits and business outcomes. But banks don't have to wait for a massive modernization program to take advantage of data-driven strategies and tactics to help move up the analytics maturity ladder—away from backward-looking descriptive analytics and toward predictive and prescriptive analytics to inform credit decisions, monitor existing loans, and forecast future portfolio performance.

One approach for banks looking to take a first step toward improving their data capabilities is to:

- Build a joined-up team that includes relationship managers, credit officers, quants, IT architects, and data specialists
- Establish data governance, including a roadmap to improving data strategy, quality, training, processes, key performance indicators (KPIs), and overall management
- Identify key areas for improvement and related use cases

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- Identify critical and essential data for process improvement, including its metadata (e.g., definition, location, and valid values)
- Determine standardization processes needed (e.g., extract, cleanse, transform, enrich)
- Determine data architecture approach, whether on premises or in the cloud, batch or real time, off the shelf or analytics workbench, data mart or data fabric, enterprise or distributed

Banks are encouraged to take an end-to-end perspective when considering technology upgrades to improve data sources, uses, and management. Any targeted initiatives should be closely coordinated with broader programs. The ultimate aim should be a seamless set of workflows to manage clients and their loans from cradle to grave, built upon strategic systems with clean, comprehensive data sources. For most banks, there is still much work to do.

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