fs viewpoint

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Point of view



While a number of banks have begun the commercial lending transformation process, many of them have not focused on the data strategy needed to efficiently meet the cost of emerging regulatory reporting requirements.

This inadequate consideration of data strategy has also impacted banks' abilities to achieve straight-through processing (STP) and develop a differentiated customer experience. In our experience, commercial lending transformation projects often share five key challenges (in order of magnitude and impact of the challenge):

madequate data strategy	and the changes that are needed to support downstream existing and emerging reporting requirements.
Inability to achieve STP	A common misconception is that vendor solutions can provide seamless STP—that is, the complete end-to-end coverage of the credit lifecycle (customer relationship management to loan workout). Critical interfaces are often under-scoped.
Poor project management & execution	Project management challenges are likely because processes span multiple business units (such as business banking, middle market, agricultural and energy); business models (such as high-volume, low-volume, secured, and unsecured); and teams (such as relationship management, credit processing, risk, and operations). These differing priorities result in a strong pull for unnecessary configuration and customization.
Undifferentiated customer experience	Achieving customer experience goals means overcoming hurdles such as consolidating technology platforms and operations of multiple product lines—a highly complex process that is fraught with execution risk.
Weak business case	Most business cases tend to be overly IT-centric and have a narrow view of return on investment (ROI). The business case is a key success factor in engaging the right business stakeholders and understanding the benefits they expect to gain—as well as the risks they expect to avoid—by completing the project.

Inadequate data strategy There is not enough understanding of both the current data environment

Banks have reached the tipping point. Regulatory, market, and operational needs are converging; lenders are recognizing their commercial lending processes and systems will not carry them through the next business cycle.

Regulatory, finance, and risk management functions are demanding more extensive and timely data for reporting than ever before.

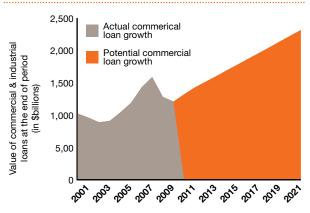
- Basel, Dodd-Frank, and other regulatory, accounting, and tax changes are creating extensive new data and reporting requirements that are impacting commercial lending.
- Regulators and investors are also applying pressure on financial institutions to invest in the IT infrastructure needed to provide a portfolio view of risk that can trigger early warning flags related to aggregate risks across the organization.¹

Furthermore, acquisition activities in recent years indicate the integration of commercial lending platforms is a significant challenge.

- Disjointed customer information, fragmented loan underwriting systems, nonstandard credit administration tools, and convoluted processes add to the complexity of integrating multiple commercial lending platforms.
- The objective of providing a competitive customer experience is one of the greatest challenges in capturing deal value and expected growth. Given the significant obstacles banks are up against, employees are struggling to keep their heads above water.

While economic recovery from the financial crisis has been slow, it will eventually give way to economic expansion. Banks that prepare now for the expected growth will enjoy multiple advantages over competitors that rely on fragmented legacy systems to continue shouldering the weight of their commercial lending businesses.

Commercial lending is expected to grow significantly over the next decade.

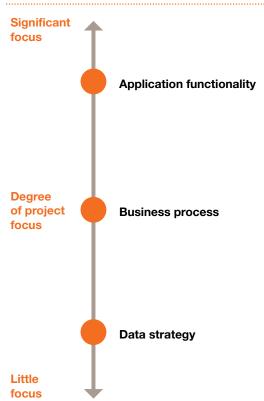


Source: IHS Global Insight for Commercial and Industrial Loans at all Commercial Banks

¹ PwC's FS Viewpoint, "Risky Business: Why Managing the Risks of Evolving Business Models Is the Key to Avoiding the Next Financial Crisis," January 2011.

We have observed banks often invest much of their project efforts on application features and functionality. In the end, however, it is their limited focus on data strategy that causes projects to falter.

Relative to technology and business process, data strategy is often under-planned.



Data integrity is often an afterthought, but it should be a key driver in commercial lending transformation.

In a study of the commercial lending landscape performed by PwC in 2011, the impetus for lenders' system and process transformations was **to comply with emerging risk and regulatory requirements and to enhance data quality**. In addition, cost reduction, increased efficiency, and customer service continued to be other key motivators.

This finding is not surprising, considering the soaring information needs banks face today:

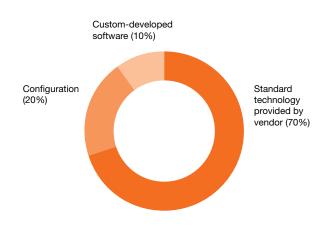
- **Counterparty credit risk**—The stressed financial markets are raising the bar on credit reporting and reliable total exposure reporting capabilities.
- Office of Financial Research (OFR)—This new function, created by the Dodd-Frank Act, will require detailed data submissions and introduce a legal entity identifier standard (LEI) to facilitate more sophisticated analysis of financial systemic risk.
- Capital planning (Basel and Dodd-Frank)—Stress testing, recovery and resolution planning, and liquidity standards require banks to deploy more robust risk modeling and reporting, all driven by high-quality data.
- **US GAAP/IFRS**—Many banks expect to maintain two sets of books for several years as they transition from US GAAP (Generally Accepted Accounting Procedures) to IFRS (International Financial Reporting Standards); in addition, loan accounting is expected to change significantly. These efforts will increase the need for high-quality data.
- **Customer relationship management**—Changing customer expectations are pushing banks to provide more transparency through customer portals.

Leading institutions realize data is a key driver to commercial lending transformation; data strategy should be addressed early-on and with the same amount of focus as other business requirements.

Despite efforts to implement STP, bank employees continue to spend significant time on manual processing. Users are disappointed by the inability of transformations to achieve the expected efficiency and data quality gains.

There is no one-size-fits-all approach:

on average, commercial banks spend nearly one-third of their implementation efforts on customizing or configuring technology.



Is the promise of STP real?

In an effort to improve data quality and increase efficiency, leading banks are redesigning their commercial lending processes to take advantage of STP. However, bank employees continue to spend time creating shadow files, executing manual processes, and placing undue reliance on spreadsheets to track and manipulate information outside of the system. In other words, many banks have found that STP does not always work out as expected.

No one-size-fits-all solution

Instead of being an out-of-the-box solution, most technologies require a large degree of configuration and customization. Because commercial lending processes cross multiple functions and systems throughout the institution, the tasks of defining business requirements and enforcing scope control are all the more challenging.

Setting the stage for success

In our view, banks should think about new commercial lending systems as workflow engines that connect different tools across business units. To set the stage for success, banks should:

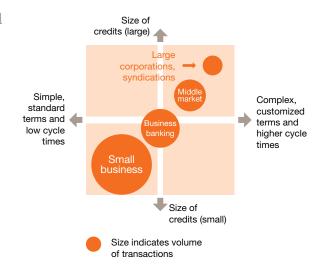
- Emphasize the need for a consistent data model across all inputs and outputs.
- Staff the right business and technology experts on their teams to help navigate and prioritize the needs of multiple—and often competing—functions.
- Take a business-led approach that objectively assesses the needs of all users and balances the need for efficiency and standardization.

Leading institutions understand that there is no one-size-fits-all approach. Customer needs and business processes vary across the customer segment spectrum, increasing the complexity of the technology and business processes that must be adapted.

Customer-centric operating models add to integration complexity

To most commercial bankers, improving the customer experience means increasing transparency into the credit process through better deal team collaboration, managing customer expectations on the availability of credit, and reducing credit approval cycle time. Achieving these goals means consolidating technology platforms and operations of multiple product lines—a highly complex process that is weighed down with execution risk.

In addition, the complexity, profitability, and volume of transactions vary across customer segments; costs and benefits should be analyzed and prioritized on a case-by-case basis.



Customer experience objectives	Implementation considerations
Increasing transparency	 How can we move credit decision makers closer to the customer?
	 How can we provide deal teams with better customer and market information to improve the structuring and speed of credit decision making?
	 How can the future state operating model support an online customer portal to improve servicing and credit monitoring?
Reducing cycle time	 What metrics need to be collected in order to understand the factors driving cycle time?
	 How does my cycle time compare to that of competitors?

In addition, qualitative and quantitative benefits should be assessed and prioritized based on their alignment with current and future business objectives.

Positive ROI is not necessarily the primary objective for every lender. In some cases, the project may be worthwhile because it boosts competitiveness. In our view, lenders should carefully assess all of the anticipated benefits and make sure that those benefits align with long-term strategic goals.

Support growth

Improve customer experience

- Decrease credit approval cycle times.
- Increase transparency to credit status and potential issues through self-service CRM (customer relationship management) functionality.

Strengthen business intelligence

- Provide an aggregated view of customer information that enables better analysis.
- Tailor new products more easily to individual customers.

Develop pipeline of products and services

- Develop customer relationships by decreasing the data processing responsibilities of relationship managers and by increasing the time spent on more valueadded activities.
- Implement product, rate, and service changes in a more timely fashion.

Manage risk

Enhance compliance

- Decrease manual data processing and exceptions.
- Enable better visibility to data that supports more robust controls and monitoring.

Improve data quality

- Respond to management, operational, and regulatory information needs quickly and accurately.
- Provide dashboard reporting that manages key risks.

Decrease operating costs

Improve operational efficiencies

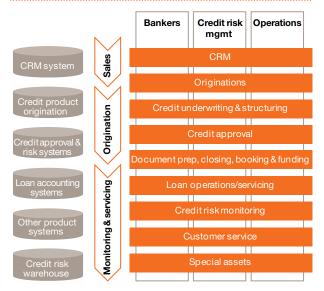
- Reduce the number of employees required to support the loan lifecycle by eliminating many manual processes and reconciliations.
- Improve productivity by redeploying resources to value-added activities.
- Decrease data errors and manual quality control activities.

Simplify technology infrastructure

- Eliminate legacy platforms by migrating toward more modern, standard, and efficient technology platforms.
- Reduce error-prone batch cycles and exception management.
- Decrease cost and development time for future product and reporting efforts.

Lastly, a clear project roadmap, disciplined scope management, and a thoughtful communication strategy are important for keeping major transformational projects on track.

Commercial lending involves multiple systems, processes, and functions (illustrative)



Commercial lending is particularly susceptible to challenges, as business processes span multiple business models and units (such as relationship management, credit processing, and operations).

Leading banks invest resources in putting the right project management protocols and governance structure in place. This includes:

- Involving the right business subject matter experts (SMEs)—Engaging internal and external SMEs to work full time on the project will facilitate more responsive requirements development and review, more effective change control, and better intelligence to support communication and training plans.
- Establishing formal scope management procedures—Changes to requirements, due to the complexity of commercial lending and/or new products or services, are common in major transformational projects, and should be controlled from the beginning to support project success.
- **Laying out a clear communication strategy**—A weak or late developing communication plan is one of the single most observed factors that leads to project problems.
- **Leading with business needs**—There is a tendency to view the project as primarily an IT project and to place too much reliance on a system vendor. Business needs should be clearly aligned with project objectives.

The potential risks of inaction are significant and can impact a bank's ability to achieve its objectives. An ineffective and inefficient commercial lending loan origination capability and related data environment will put a bank at a competitive disadvantage.

Across the top 40 banks operating in North America, many have completed initial commercial lending transformations or are in process; several have not started.

Those banks that have completed transformations may have only covered one or two segments, or had a transformation that fell short of the objectives.

Those banks that are in process, or are about to start, have an opportunity to make sure they have addressed the key success factors: focus on data strategy, achieve STP, develop the customer experience, build the right business case, and manage project execution. Inaction will result in these key risks continuing to negatively impact the business.

The most effective commercial lending transformations engage the right stakeholders to make sure the project remains business-driven and does not become "just another IT project." Leading banks will assess what is at stake, which may include:

Inability to meet reporting needs	Infrastructure fragmentation and technological obsolescence may impact data quality and completeness, creating potential regulatory compliance issues. These conditions may become costly and inefficient to meet emerging reporting needs.
Inability to retain clients & achieve growth	Banks may not be able to protect existing revenue and achieve growth aspirations because of their failure to understand and meet the needs of customers (such as long cycle times and higher margins compared to competitors).
Reduced ability to support growth	Support of fragmented infrastructure and manual processes can cause unnecessary stress on operations and limit growth potential.
Increased cost of future acquisitions	Potential return on future acquisitions decreases as integration becomes increasingly complex.
Loss of employee talent	Banks may be unable to attract top talent due to employee frustration with obsolete systems. Based on our experience, it is common for employees to spend up to 25% of their time on non-value-added activities.

Competitive intelligence



Most of the top 40 commercial lenders have recently transformed their commercial lending and credit process, or are currently undergoing system and/or process transformations.1

Transformation progress	 Half of the top 40 commercial lenders by assets analyzed by PwC are in the process of, or have completed, a major transformation; most of the remaining ones have begun the process.
	 Only three of these banks have not started implementation.
	 Within the next two years, 90% of the industry plans to have its credit origination systems integrated with servicing.
Vendor selection	 The banks analyzed by PwC are utilizing multiple vendors for the transformation process. Some have developed the solution with their internal IT divisions. Industry concentrations, average size of credits, types and number of loans, organizational structures, and the current loan servicing system all affect banks' choice of vendors.
	 59% of the top banks that are undergoing, or have recently completed, an implementation used an outside vendor. The remaining 41% performed the transformation process in-house.
Change drivers	 The primary objectives of banks' system and process transformations are to: (1) comply with emerging risk and regulatory requirements and (2) enhance data quality processes and controls. Cost reduction, increased efficiency, and customer service are secondary motivations for executing transformation programs.
Transformation complexity	 For the largest lenders, a comprehensive transformation involving multiple business divisions is common; there is a tendency to use different technology platforms for small business loans, middle market, asset-based lending, and leasing.
	 Regional and super-regional banks typically limit their transformations to a single business division, although some multi-division projects are successful. Smaller banks tend to use one platform for all of their commercial loans.

¹ Based on a PwC analysis of the top 40 commercial lenders by assets as of 6/30/2011.

The following table sets out three examples of market practice relative to the areas identified.

	Our observations of market practic	ce	
Area of focus	Financial institution A	Financial institution B	Financial institution C
Data strategy	A single system of record was determined for all key credit and risk data, thereby eliminating data duplication, managing credit aggregation, and reporting from a single version of the "truth." Complex existing technology infrastructure and stand-alone systems required manual workarounds to meet all goals.	Data strategy was not an integral part of the initial scoping and planning, requiring many process work-arounds when the solution was implemented. Data requirements for all key interfaces lacked initial business subject matter expert involvement, leading to re-work and delays as the project moved forward.	Data was viewed only from a product or accounting perspective; no comprehensive strategy was developed. No approach was developed to aggregate customer exposure data across units, products, or systems; relationship managers and credit group personnel were thereby forced to "hunt" for relationship information.
Straight-through processing (STP)	End-to-end STP was achieved for commercial loans from credit request to loan booking. Other credit products (such as derivatives, treasury management limits, and letters of credit) were not covered in the design phase. Manual processes were still required to move from credit approval to product booking or execution.	End-to-end STP was achieved for most commercial loans, but larger and more complex credits remained as a primarily manual process. The lack of interfaces to key systems and tools resulted in the re-keying of data; additional controls were needed to check for accuracy and completeness.	End-to-end STP has not yet been achieved, as project has been delayed and restarted several times, with little progress made.





The following table sets out three examples of market practice relative to the areas identified. (continued)

	Our observations of market pract	ice	
Area of focus	Financial institution A	Financial institution B	Financial institution C
Customer experience	A major element of the transformation was a change in process that moved the credit risk officer from a primarily back-office role to a more customer-facing role.	A customer credit portal was added to the bank's treasury management workstation, which enabled customers to upload required credit monitoring and request advances.	Customer experience was not included in the project scope.
Business case	The business problem being solved was not only articulated in the business case, but also tied to the solution. The business case was driven by data integrity requirements and a view that the investment was a "must-have" in order to remain competitive in the business. Efficiency and cost reduction were added as benefits as the project scope and target operating model were developed. A disciplined project management process revisited the business case throughout the project lifecycle to validate assumptions, benefits, and costs.	The business case identified the solution, but failed to articulate the business problem being solved. The business case was driven by revenue generation, and to a lesser extent, data integrity requirements. The absence of strong metrics led to project governance and scope issues. Inadequate buy-in by all stakeholders to the business case reduced participation by some key groups, slowing down the project.	The business case was driven primarily by expense reductions in the business and operations units, which led to a general lack of support from business leaders. Estimates for the one-time cost of the transformation were not based on market norms or experience, and led to staffing and commitment challenges.





The following table sets out three examples of market practice relative to the areas identified. (conclusion)

Our observations of market practice			
Area of focus	Financial institution A	Financial institution B	Financial institution C
Project management & execution	The project was led by the credit executive and his project management office, as the endto-end credit process was owned by the credit group. The lines of business were active participants. IT and vendors were service providers. Total resources needed for project execution were initially underestimated; however, project management escalated and resolved the issue before the situation significantly impacted the project.	The project was co-led by a group of business leaders with differing goals and priorities. The technology area was led by a systems vendor with little oversight. The project suffered from time and budget overruns, as well as a lack of scope management. The project resources needed were underestimated during the planning phase. This issue was never corrected, leading to time and budget overruns.	The project was led by IT, without clease sponsorship from either a business leader or credit executive. The project struggled to gain traction, and had to be started and restarted a number of times. The project resources needed were underestimated during the planning stage. The resource issue was never corrected, eventually contributing to project failure.

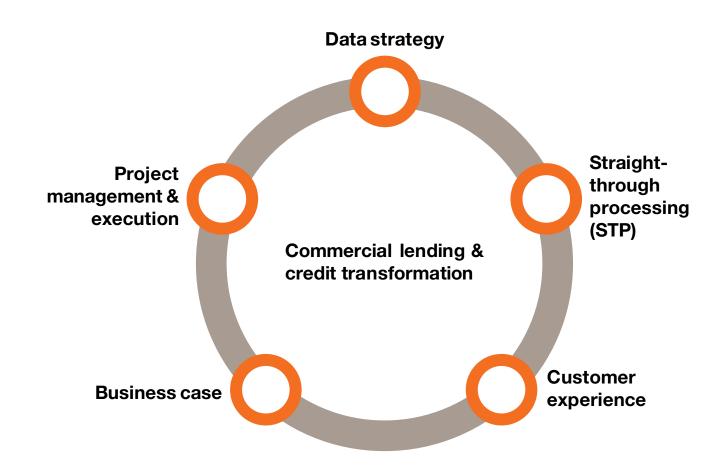




A framework for response



By focusing on five key requirements throughout their commercial lending and credit transformation projects, banks will be better positioned to achieve their project goals within budget and resource constraints.



Develop a data strategy early-on in the project, which defines how data should be structured to enable users to easily access, analyze, store, and report on data.



Loan lifecycle process	Key data	Users of data
CRM	Common customer ID, aggregate exposure, KYC	Relationship managers (RMs), customers
Originations	Credit request, customer data, financials, guarantors	RMs, credit mgmt, customers
Underwriting & structuring	Asset/collateral info, risk rating, debt coverage	Credit mgmt, customers
Creditapproval	Credit memo, credit package, credit authority	RMs, credit mgmt
Document prep, booking, funding	Loan documents, funding requests, tickers	RMs, funding control, loan operations
Loan operations	Principal & interest payments, fees	Loan operations
Credit risk monitoring	Covenants, reviews, risk rating, inspections	RMs, credit mgmt
Customer service	Customer account info, collections, delinquencies	RMs, RM support
Special assets	Workouts, charge-offs, NPAs, FAS114	Accounting, special assets officer, credit mgmt

when develop	ing a data strategy.
Key steps	Potential activities
Identify data owners and users	Create a data oversight committee made up of users representing each part of the loan lifecycle
Define data requirements	 Document all current data and reporting requirements (such as source, lineage, and data model) Identify all known emerging regulatory requirements Identify internal data constraints (such as volume of data, and manual vs. automated)
Design data infrastructure	 Create system functionality to provide the needed data Design flexible and scalable infrastructure Enable appropriate data access rules
Develop data migration plan	Data cleansing and preparationData conversionData testing and validation
Develop data usage policies and procedures	 Define policies for ongoing ownership and management of data Establish a governance process to manage data consistency and address data quality standards, data security, and performance measures

When developing a data strategy:

Manage straight-through processing (STP) objectives with an eye toward what is practical and cost effective.

Successful implementation of STP is businessled and includes a strong scope management program. In most cases, banks realize that total system integration and STP are prohibitively expensive; therefore, banks need to make choices about which areas will be integrated and which will not.

Making STP work—key considerations:

Each lender should analyze existing systems and gain agreement on areas where the most benefits would be realized by eliminating manual steps and quality-control procedures.

• Engage stakeholders—Stakeholders should have decision-making authority and have expertise in their own areas, while also understanding how different business units and systems interact. Involving the right

stakeholders is critical to developing the shared baseline functionality and evaluating the merits of alternative needs.

Straightthrough

processing (STP)

- Implement a consistent data model— The data model drives many of the system constraints and is often a deciding factor in whether it makes sense to integrate. A consistent, scalable data model can simplify integration efforts and reduce cost.
- Establish a scope management **program**—A strong scope management program should support an objective, factbased approach to managing scope changes. In addition, the program should consider how the risks of not proceeding with a scope change will be mitigated.

Gain agreement on the benefits and constraints of implementing STP across various business units and interfaces

System interface	Benefits	Constraints	Priority
CRM—origination & underwriting	Improves speed of underwriting and structuring if this data exists and is accurate	Relationship exposure aggregation requires major process & system changes	High
Origination—credit approval	Relationship exposure aggregation requires major process & system changes	Still dependent on receipt of all required documents from customers	High
Credit approval—document mgmt	Cycle times decrease from approval to booking	Some manual processes may be unavoidable	Moderate
Document mgmt-loan servicing	Imaging of files simplifies servicing activities, reducing manual activity	System is limited by quality of document scan data	Moderate
Credit approval—credit risk monitoring	Links covenants and other monitoring requirements from deals to ongoing portfolio mgmt	Deal complexity can impact ability to automate interfaces	High

Define customer experience goals, and articulate how those objectives will add value to varying commercial lending segments and the employees who serve them.



Top pitfalls:

- Failing to invest in modern security structures for customer data.
- Training employees on how to get the most out of customer-facing systems, but failing to develop control mechanisms to monitor for appropriate system usage.
- Creating effective customer applications without a concurrent strategy for educating customers about the new

While the ultimate goal of every commercial lending systems is to provide tools for supporting customer needs, lenders should be realistic about what they expect to achieve. Lenders can satisfy customers' growing expectations by introducing an interactive element to the customer experience, reducing cycle times, and increasing transparency.

Objectives	Potential activities
Improve customer interaction	 Develop capabilities for customers to upload key data (such as applications, financial statements, and collateral valuation), thereby reducing the need for repeated paperwork cycles.
	 Involve relationship managers in the business requirements process to better understand what tools are needed to manage customer data and increase the value of each interaction.
Increase transparency	 Assess how the commercial lending customer relationship capabilities (customer portals, mobile offerings) compare to those of competitors.
	 Evaluate how customer relationship management, origination, and underwriting systems can be integrated to provide greater access to information.
	 Support customer self-service capabilities, including loan approval status monitoring, collateral updates, guarantor updates, and covenant tracking.
Reduce cycle times	 Develop metrics to measure, monitor, and evaluate steps in the credit approval process.
	 Prioritize STP objectives to enable better integration.
	 Assess credit policies, and consider how those policies may be simplified to improve cycle time without increasing risk.





Key steps	Leading practices
Define project goals and expected outputs	 Involve all stakeholders (such as relationship managers, system users, customers, risk management, financial reporting, and compliance) in the project definition and scope.
	Make project goals and details available to all stakeholders.
	• Clearly delineate the project scope—what it does and does not intend to achieve.
	 Define outcomes—such as new lending product capabilities, transparency of credimanagement process, and increased customer interaction.
Describe how project aligns to firm strategy	 Use empirical data—customer, market, and other industry analyses—to support the overall analysis and explain how the project will impact long-term performance.
	 Articulate why these outcomes are needed to support strategic firm-wide goals, and justify against the potential risks of inaction.
Articulate expected	Focus on the impact on pre-tax earnings, rather than return on investment.
benefits	 Consider the effect of losing the competitive edge if the project is not implemented or fails (such as the potential impact on future revenue).
	 Quantify how the project will impact business units, operations, IT, and the bank's ability to comply with current and future regulatory requirements—considering both current and expected future workload, given growth targets.
Analyze cost and	Project the lifetime cost for a variety of vendor and in-house solutions.
funding needs	 Compare with benefits previously defined for a range of project scope and outcomes.
	 Communicate results of cost and benefit analyses to key stakeholders to secure resources for the life of the project.
Assess risk & identify	Involve key business decision makers and risk managers in the risk assessment.
alternatives	Build standards and controls into the project plan.
	Consider all alternatives, including vendors and other external partners.

Establish robust project management protocols to support a defined project roadmap, active stakeholder involvement, and the clear realization of benefits.

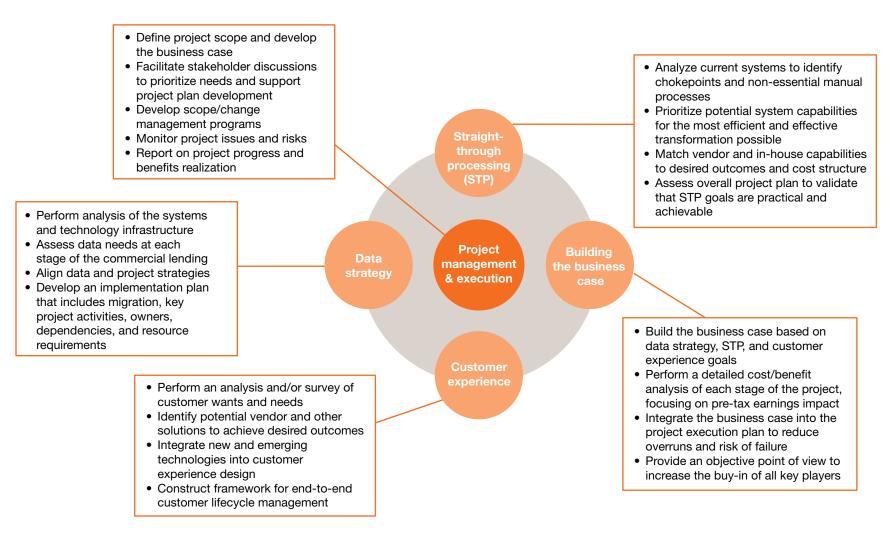


Critical success factors		Stumbling blocks preventing success	
Business and IT alignment	Business capabilities drive the technology roadmap and key decisions, with business and IT engaged in a true partnership.	Scope creep	Stakeholders continually change or add new features without regard to the impact on cost, quality, and schedule.
Strong leadership and program management	A leadership team that is willing to make tough decisions and stay actively engaged in the program, provides the focus required for long-term transformation.	Lack of leadership	Without strong leadership to maintain focus and pace, the initiative is orphaned by business and IT management.
Formalized change management	A structured approach will help identify stakeholders upfront, develop a plan to obtain buy-in, execute communication plans, and implement change seamlessly.	Insufficient change management scope	While training and communication are often viewed as sufficient to drive adoption, they are not enough.
Clear project roadmap	Enable a timely transformation by developing a well-defined roadmap that addresses scope, architecture, integration, conversion, resources, and sun-setting.	Overly tactical solution	Using old, inefficient processes on new technology results in missed opportunities for lower costs and higher customer service.
Active stakeholder involvement	By creating a sense of ownership, stakeholders tend to make more responsible decisions because they have "skin in the game."	Lack of talent/experience	The use of existing resources without complex program experience and skills decreases the likelihood of success on a strategic initiative.
Mobilization of the right expertise	Leaders should ensure that the top resources with the right experience and expertise play critical roles on the project.	Alternate governance	The organization undermines its initiative by allowing a vocal minority of dissenters to drive their own agenda.
Empowered team members	At every level, resources granted with appropriate authority yield quick decisions and minimize delays and re-work.	Passive stakeholder involvement	Stakeholders abdicate their role as leaders and disengage from the day-to-day decision making.
Quick wins	Tying benefits to delivery milestones provides stakeholders with immediate, tangible results, and increases support throughout delivery.	Shifting focus	Stakeholders juggle multiple competing priorities and lose focus on the most important initiative to the future of the organization.

How PwC can help



PwC's tailored approach focuses on building and integrating all aspects of the commercial lending transformation process from inception to implementation.



What makes PwC's Financial Services practice distinctive.

PwC's Financial Services practice consists of more than 34,000 industry-dedicated professionals worldwide, including more than 4,500 in the United States. They serve large and multinational banks, insurance companies, investment managers, broker-dealers hedge funds, and payments organizations.	
PwC serves some of the largest and most complex financial services companies in the world. We understand from personal experience the wide variety of business issues that affect the industry, and we apply our knowledge to our clients' individual circumstances. Moreover, our large, integrated global network of industry-dedicated resources enables us to apply this knowledge on our clients' behalf whenever and wherever they need it.	
The critical issues financial services companies face today affect their entire business. Addressing these complexities requires both breadth and depth, and PwC service teams include specialists in risk management, compliance, technology, business operations, finance, change and program management, data and business analytics, economics and analysis, internal audit, tax, forensics, and investigations.	
In addition to working directly with clients, our practice professionals and Financial Services Institute (FSI) regularly produce client surveys, white papers, and points of view on the critical issues that face the industry. These publications—as well the events we stage—provide clients new intelligence, perspective and analysis on the trends that affect them.	
PwC's size, financial stability, and 150-year history all contribute to our long-term view of client relationships. We help clients translate strategy into action by helping them address their challenges in finance, tax, human resources, operations, technology, and risk and compliance.	

Appendix



Commercial banking operating model— Top 10 US bank

Issues

The bank's wholesale banking unit processed commercial loans for customers in the small business and capital markets areas. The processes and systems used to create and manage the offering documents were predominately paper-based and non-integrated. Gaining approval for commercial loans was time consuming due to the lack of standardization of the offering documents. Seeking to address these challenges, the client established a vision to streamline the process for commercial loans by establishing a platform that would allow for the standardization and automation of the credit information sheet (CIS), integration of compliance sheets, and generation of approval logs.

Approach

PwC's approach included the following key attributes:

- We combined our industry and systems integration experience with technology solutions for application server layer and basic document management, version control, and archiving capabilities.
- In the pre-planning phase, we developed a proof-of-concept architecture prototype and technical environment plan. Working closely with the client, we leveraged a standardized software development process to organize and develop the new deal management system.
- To prepare the client and its 2,000 end users for the new deal management system, we helped prepare materials that would train the client on application functionality and maintenance.

Benefits

PwC assisted the client in establishing a foundation for future growth, which can be used across multiple business units. Results include:

- Enthusiastic user acceptance—User training is a major accomplishment in the field, as reported by the head of commercial lending.
- Cycle time reduction—Three-day reduction in average cycle time after only one month; the client anticipates an overall 30% reduction once the solution is fully rolled out.
- Credit policy compliance—With credit policy guidelines that are built into the system, every deal meets policy guidelines.
- Cost reduction—The client anticipates 35% reduction in support staff needs once the solution is fully rolled out.

Commercial lending transformation— National bank

Issues

The bank's Commercial Services Group lacked scalability and consistency of approach, with significant reliance on manual activities—underwriting, portfolio management, and credit approval processing. The client's strategic initiatives and objectives included significant growth in application processing and portfolio management volumes. The client recognized that increased volume levels could not be supported by its current end-to-end loan processes.

Approach

PwC applied our transformation methodology to:

- Analyze the Commercial Services Group strategies and define its change objectives.
- Complete a current state operational assessment including the development of current end-to-end loan process flows and system diagrams.
- Identify gaps between current and target operational environments, as well as systems and operational enhancement initiatives, that were designed to reduce dependence on manual processes and mitigate operational risk.
- Design the implementation strategy and roadmap through the categorization and prioritization of identified operational and system initiatives.

Benefits

During the course of the engagement, the client obtained clear documentation of current operational processes to assist in standardizing processes and training new employees. PwC helped in identifying existing operational weaknesses and increased the client's ability to mitigate operational risks arising from those weaknesses. The client is able to leverage data and information gathered through the engagement to support and justify change requirements. Finally, the client now has a roadmap that supported its planning efforts for developing and implementing phases of the Commercial Services Group transformation initiative.

Commercial lending workflow technology— Major Canadian bank

Issues The bank had defined a transformational target operating model for commercial banking, which encompassed process, technology, and people changes. A key component of the model was selection of a new commercial banking system to enable greater straightthrough processing (STP) of commercial credits and business-ruleenabled workflow. The client needed assistance in short listing the vendors based on the request for proposal (RFP) response. PwC was asked to assist in the technology selection process. The PwC team provided a short list of vendors for evaluation, Approach which resulted in accelerating the RFP process. We assisted in refining the technology costs for the transformation program by: Reviewing and understanding transformation objectives. Confirming solution evaluation criteria. Identifying gaps in business requirements based on our

knowledge of market practices. Prioritizing business requirements.

Reviewing and assessing vendor responses against evaluation criteria.

- Recommending a short list of solutions based on assessment of software vendors.
- Estimating total cost of deploying solutions including software, hardware, integration, program management, and other software implementation services.

Benefits

PwC's efforts have enabled the client to execute an objective, well-thought-out assessment of the vendors, based on strategic priorities and user needs. In addition, the client now has a better understanding of additional industry leading practices to look for in vendors. Finally, PwC's estimate of total deployment costs has helped the bank assess the degree of systems customization needed in the implementation effort.

Commercial banking operating model— Major Canadian bank

Issues	The bank was missing a growth opportunity within the business banking segment. While both the number of enterprises and the business credit market in Canada were continuing to grow, the client's growth rate in this sector was negative.		
	The client was seeking assistance with defining a target operating model that would enable it to appropriately organize and align its resources and capabilities to its various business banking customer segments.		
Approach	PwC's approach to this engagement included the following:		
	 Developed operating model options for the Small Business and Commercial Banking segments, based on a review of market practices (including segmentation, business operating model, organization, product, channels, technology, and key process areas) of the Canadian and global marketplace. 		
	 Assessed advantages and disadvantages of each of the options as it related to competitive landscape, customer segmentation, organization structure, and business processes. 		
	 Developed a high-level roadmap to support implementation of the selected redefined business operating model. 		
	 Developed a case for change by developing the high-level cost/benefit analysis and implementing the strategic roadmap. 		
Benefits	PwC has helped the bank to increase efficiencies and be better positioned to meet customer needs to increase their performance and achieve revenue growth. With PwC's analysis, the client has a better understanding of the organizational, process, and technology changes needed to grow and compete effectively in the business banking segment.		

${\color{red} \textbf{Commercial finance}}$ cost savings— International commercial finance company

The client's international wholesale banking units (including leasing, factoring, C&I, real estate, and vendor finance divisions) were seeking to increase the effectiveness of their credit and risk management functions with the goals of reducing cycle time, eliminating redundancies, increasing consistency, and improving both customer service and risk management effectiveness. The current processes were predominantly paper-based and non-integrated. The client sought to achieve these process efficiencies and cost savings without capital investment in technology. The fiscal goal was to achieve a cost reduction of approximately 20% of its risk management costs.
PwC worked with the client to:
 Identify specific process steps within the underwriting functions and objectively evaluate those steps for business criticality, location dependency, and the potential for process improvement. The output of the evaluation was used to identify process steps for local improvement, consolidation, and outsourcing.
 Develop a cost baseline that included the number of employees for each process step, employee costs, position levels, and geographic location.
 Develop the future state organization and function of corporate risk management governance, including deal routing and approval processes.
 Identify specific process improvement opportunities that could be executed independent of the larger organizational realignment.
 Develop both the business case to identify expected cost savings and the implementation plan to realize those savings.
PwC's help has enabled the client to identify savings in excess of its goals. The client has executed the initial phases of the cost reduction plan and reorganized its corporate risk management organization. PwC is currently engaged to define the client's underwriting and portfolio management processes, as well as the organization within the corporate finance business unit.

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[&]quot;Time for an upgrade: Five things you need to know to make your commercial lending transformation a success," PwC FS Viewpoint, January 2012. www.pwc.com/fsi

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