KPMG

cutting through complexity

Data-driven business transformation

Driving performance, strategy and decision making

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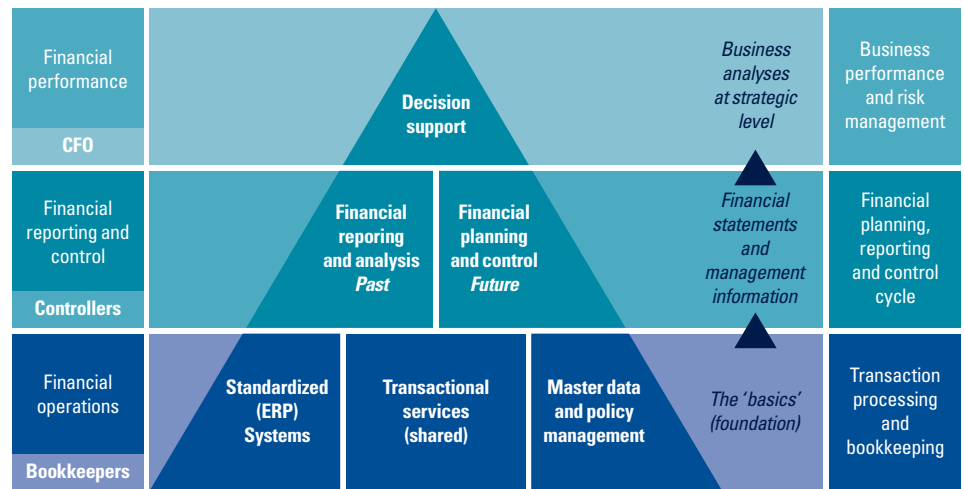
EDGE MANAGEMENT

BI

DATA MINING

DATA VISUALIZATION

REPORTING

COLL

The phenomenon of Big Data has changed the business world like never before. The most important part of this transformation is the strong emergence of analytics to support the shift in modern enterprises from a process-centric viewpoint to one that is more data-centric and data-driven. The data that surrounds the enterprise is being harnessed into information that informs, supports and drives decision making in a timely, repeatable manner.

This biannual KPMG global CFO survey report, Being the Best: Inside the Intelligent Finance Function, brings data & analytics (D&A) concepts into play at the outset, saying of today's finance function leaders: "Their biggest challenges lie in creating the efficiencies needed to gather and process basic financial data and continue to deliver traditional finance outputs while at the same time redeploying their limited resources to enable higher-value business decision support activities."[1]

Certainly, the tools, techniques and processes that comprise the field of data & analytics are critical to improving standard, day-to-day data and transaction processing. However, it's the implications of the second assertion – that leaders need to better deliver the "higher-value" business insights that drive strategic decision making – that make D&A even more central to the intelligent finance equation.

Initially, survey respondents saw D&A as critical to the implementation of "lean finance," that is, optimizing finance processes so the finance function can "minimize waste and other inefficiencies" to reduce costs and "boost speed, flexibility and quality." Indeed, 41% of high-performing survey respondents considered D&A to be an "extremely important" enabler of lean finance.

> " By some estimates, the information now circulating the internet amounts to more than a zettabyte: 1,000,000,000,000,000,000,000 bytes. Most analysts suggest that this quantity will increase by about 40% every year for the foreseeable future. "

1   KPMG. *Being the best: Inside the intelligent finance function*. (2013). Accessed at http://www.kpmg.com/AU/en/IssuesAndInsights/ArticlesPublications/global-cfo-survey/Documents/cfo-survey-intelligent-finance-function-2013.pdf on January 16, 2014.

But while supporting lean finance is clearly important, there is a bigger picture for Canadian finance leaders to consider, and a bigger role for D&A to play – one which not only improves and optimizes existing processes, but also transforms the finance function itself by more consistently and expansively turning data into actionable intelligence that delivers value across the enterprise.

Understanding the building blocks of a finance function

Financial performance **CFO**	**Decision support**			*Business analyses at strategic level*	Business performance and risk management
Financial reporting and control **Controllers**	**Financial reporing and analysis** *Past*	**Financial planning and control** *Future*		*Financial statements and management information*	Financial planning, reporting and control cycle
Financial operations **Bookkeepers**	**Standardized (ERP) Systems**	**Transactional services (shared)**	**Master data and policy management**	*The 'basics' (foundation)*	Transaction processing and bookkeeping

Source: KPMG International

Enhancing decision making and strategic value

While everyone is talking about Big Data and touting its value, the true data-driven enterprise is still in its early stages. By better leveraging the power of both the organization's structured data (contained in relational, searchable databases) and unstructured data (existing outside of such databases, e.g., emails) – as well as the almost unlimited masses of Big Data that lie outside the organization – finance leaders can help transform the organization's ability to predict outcomes, plan around them and respond appropriately. Not only will this radically enhance corporate decision making, it will significantly increase the finance function's ability to contribute strategic value to the organization.

What does the data-driven enterprise look like?

For a given organization, certain key capabilities will indicate that transformative data initiatives are enabled or under way. These include the ability to:

- Make sense of a broad range of structured and unstructured data and apply that knowledge to business planning, budgeting and forecasting and decision support

- Predict outcomes far more effectively than conventional forecasting techniques based on static historical financial reports

- Provide real-time insights into where the company should invest to close capability gaps and spot emerging opportunities

- Simulate responses to a wide range of events, from everyday market movements to extraordinary 'black swan' events

- Recognize, filter and extract value from financial and operational information to make better business decisions

- Identify competitive advantages to better service customers

- Make predictions – concerning potential fraud, for example – based on complex data patterns

- Create relevant and timely executive dashboards to measure success and drive strategy

> " Implementing business intelligence (BI) and data & analytics (D&A) means shifting from tactical data delivery to strategically filtering and extracting value from financial and operational data, then converting it to meaningful information that supports business decisions. "

Competitive Advantage

Intelligence — "I have a portfolio of appropriate options available, at the moment of contact"

Insight — "What is my best opportunity" "What should I do next for my client"

Information — "How is my client doing vs. goals?"

Data — "I can explore my client data, but is it correct?"

Value extracted from Information
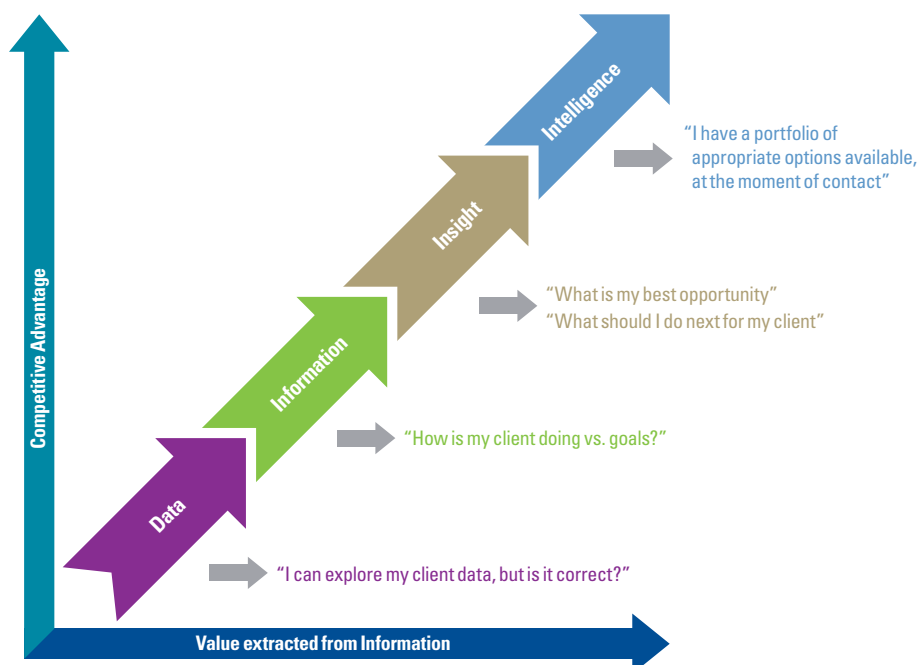
Making sense of the data

Data often resides in silos throughout the organization and is frequently redundant and conflicting. Employees don't know how to access it or how to make sense of it, and because analytical processes aren't embedded in platforms and infrastructure, D&A becomes an afterthought rather than a business driver.

Whether your organization is in the midst of key enterprise transformations such as Big Data initiatives, an ERP implementation, a financial system upgrade or other data migration/conversion/migration initiatives, a BI & D&A solution can be integrated at any stage to help achieve increased operational efficiencies, improved understanding of customer behaviour and data risk mitigation.

To determine where they sit on the transformation continuum, data-ambitious organizations should ask themselves some key questions:

- Is our data growing faster than we can manage it?

- Do we know where our data is and how it's being used?

- Is our data tied to our business processes and systems?

- Is our data siloed across the organization, preventing us from getting a meaningful look at our business?

- Can we pinpoint areas to improve operational efficiencies?

- Are we using social media/public sentiment as part of our corporate analytics?

- Do people trust our data and believe it's accurate?

- Are our data security measures exposing us to risk?

- Is our data giving us actionable information with respect to customer behaviour?

- Can we access information in a fast and timely fashion?

- Do we still privilege gut-instinct over business intelligence?

Accuracy in insight

By using a well-developed business intelligence (BI) framework, organizations can shift the focus away from just the efficient delivery of information (a technology-centric tactical approach) to accuracy in insight – a strategic approach that recognizes, filters and extracts value from financial and operational information to make better business decisions.

This expands the focus of BI from basic reporting, scorecards and tools to a broader organizational capability. This capability allows organizations to capitalize on their information, apply relevant insight to respond to marketplace pressures and identify competitive advantages to better service their customers using data & analytics and predictive analytics.

Business Intelligence Framework

Business Strategy Alignment

- Are you measuring the right KPIs?
- Are they aligned to your business strategy and objectives?
- Do the KPIs cascade through the organisation correctly?
- Are individuals incentivised on the KPIs?

Governance

- Do you have clear roles and responsibilities for BI and information management?
- Do you have effective and efficient demand management and change management processes?
- How effectively do business users and IT work together?

Performance Management & Reporting

- Do your financial reports reconcile with your operational ones?
- Are you planning, forecasting and reporting on the same value drivers?
- Are your reporting and data management processes efficient and effective?

Integrated Information Management

- Is your data architecture optimised for reporting?
- Do you have a single version of the truth?
- Do you have MDM tools and processes in place?
- Do you monitor data quality?

Applications

- Do you have the optimum application architecture for your current and future information management requirements?
- Are you using the right tools for the right jobs?
- Do you have a strategy for your BI Application portfolio?

Infrastructure

- Is MI/BI performance acceptable to end users?
- Do you have appropriate availability and resilience?
- Do you have the right dev/test/prod enviroments and release procedures?
- Is your MI secure?

Next steps

If you find your organization lags in data understanding and capability, it's time to take remedial steps. It's also important not to jump the gun. The use of data & analytics techniques is increasingly critical, but their effectiveness depends on a strong foundation of optimized finance systems, processes and people.

Canadian organizations can get started by building or refining a data strategy and a two- to five-year roadmap. This is an important starting point. It not only identifies the people, processes, data and expenditures required for a data-driven transformation, it also helps ensure all stakeholders are on the same page.

With the strategic starting point established, you have the basis to build an organization where data consistently drives decision making and performance. From there, organizations can immediately begin integrating and rationalizing legacy systems and establishing data warehouses to ensure they have one global data set. They should then standardize and streamline data flows and underlying IT architecture to automate the transfer of data inputs. It's also critical to invest in acquiring talent with intelligent finance skills and capabilities, or training existing talent appropriately.

Once these core capabilities are in place, organizations need to ensure they have or acquire the right BI technology and decision support tools to deliver effectively on their data potential. These would include a range of point-and-click, self-serve tools, such as dashboards that allow users to access, filter and visualize key data related to specific business issues. Other desirable technologies include increased in-memory computing to run inquiries and extract data from core systems more quickly; tools for accessing and using unstructured data; and a variety of cloud technologies that can enable faster deployment while decreasing your required investment.

Steps to move toward a data-driven enterprise

1. Develop integrated data warehouse
   Supported by a master data repository to ensure data is captured only once and used consistently across the reporting chain.

2. Make data readily available
   Provides greater transparency and enables tighter controls and flexible reporting.

3. Understand limitations
   Understand the current systems landscape, including what functionality resides where and any technical limitations to data sharing, to avoid issues down the road related to data traceability or lack of drill-down capability.

4. Harness tools
   Provide more meaningful, forward-looking financial forecasts, predict and manage risk and reveal new market opportunities.

5. Conduct Business Intelligence & Data Analytics (BIDA) health-check
   A periodic BIDA health-check can be used to ensure that people, processes and tools are aligned with the data strategy and roadmap. The health-check can be a three- to four-week exercise once or twice a year and can be used to bring senior leadership and other stakeholders together to reinforce the organization's data vision.

Importantly, any organization currently engaged in or planning key enterprise projects such as Big Data initiatives, an ERP implementation, a financial system upgrade or other data migration/conversion initiatives should plan to embed and integrate business intelligence and data & analytics tools into the process. This is relatively easily done and less costly than retro-fitting tools into cumbersome legacy systems.

Benefits of data-driven transformation

- Drive decision making with insightful reports highlighting KPIs across multiple functions, such as finance, risk, operations, HR and marketing

- Leverage the latest business intelligence tools—such as cloud-enabled ERP and EPM solutions and user-friendly mobile technologies—combined with innovative D&A techniques to drive growth and market opportunities

- Extract and filter data to examine core issues, such as fraud, that affect the organization

- Heighten data security against both internal and external misuse or misappropriation

- Trust that your data is consistent, reliable and non-redundant; spend your time generating strategic insight instead of reconciling information

The data-driven enterprise: a transformation imperative

The global data stream is staggeringly deep and powerful. Beyond leveraging the full range of oft-neglected internal data, finance teams have the potential to mine rich veins of intelligence from external sources. These include both traditional sources – such as customer databases and analyst reports – and a wide range of new ones, including Twitter, Facebook, call centre activity, wireless networks and even satellites and surveillance cameras.

The advantages, given the astounding proliferation of data, seem almost limitless, and the applications encompass a wide range of sectors and industries. Retail companies will be able to vastly improve customer segmentation knowledge. Manufacturing can use real-time data access to improve critical supply-chain decisions. Financial services can apply analytics techniques to predict fraud. The oil and gas (O&G) industry is increasingly using D&A to guide major initiatives, for example, to determine where to drill. Research consultancy IDC, in fact, links O&G industry innovation to D&A, suggesting that "unconventional resources (shale gas, tight oil) will drive innovation in the expanded use of Big Data."[2] With emerging data visualization tools, end users will be able to more effectively spot patterns and determine direction.

The real challenge for finance leaders may be identifying the right initial organizational needs and projects to justify key D&A investments. What systems need to be improved? Which functions and employees need access to data in the right format, at the right time, at the appropriate level of integrity? Are our business systems and processes capable of delivering such data? If not, how will they feed the data-driven decision-making pipeline that will empower all organizations going forward?

Our CFO survey clearly indicates that CFOs understand the data transformation imperative. Regardless of where their organization is on the D&A journey, they concur that, in the most basic terms, organizations must transform data into intelligence more consistently and expansively. It's a business case that must be made. There's no question that Canadian finance leaders have an opportunity to take their strategic role to the next level, but taking D&A to the next level is the first step.

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2 Rick Nicholson. *IDC Energy Insights: Big Data in the Oil & Gas Industry*, p. 18. Accessed at https://www-950.ibm.com/events/wwe/grp/grp037.nsf/vLookupPDFs/RICK%20-%20IDC_Calgary_Big_Data_Oil_and-Gas/%24file/RICK%20-%20IDC_Calgary_Big_Data_Oil_and-Gas.pdf on November 18, 2014.

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