Big data strategy to support the CFO and governance agenda

Big data has become a common term for any collection of large and complex data sets. Data can arrive from multiple sources at an alarming speed, volume and variety, but it holds enormous potential. To extract meaningful value from big data, you need to have in place the right strategy, processes and skills.

What implications does big data have for the agendas of CFOs, executive management and the board? Companies that strive for a leading position in their industry support their corporate governance by bringing discipline to their data. Effective data organization and analysis, using the right teams, can help you generate insights that improve financial analysis and decision-making. Big data is also a useful tool for CFOs. It can help them promote successful change management, for example, in corporate governance, finance and accounting.

EY can help you design an effective big data strategy for all CFO functions. Our teams from across EY can work with you to establish a big data architecture that will enable you to make better decisions and help you gain a competitive advantage.
A broader understanding of corporate governance requires a new and more data-centric model of decision-making. To gain this understanding, a fundamental reassessment is needed, which will change existing management practices and organizational structures. Big data allows you to take a holistic approach.

The major challenge is to move from a retrospective and intuitive decision-making process to a proactive, data-driven one.

Big data implies a new role for the CFO

Big data has the potential to revolutionize the way businesses operate. Successful big data strategies should be owned and driven by executive management, rather than by just the CIO. In this context, the CFO has a major role to play.

The primary objective of the CFO is to maximize shareholder return by looking beyond the finance function and taking a strategic view of the whole business.

Today’s CFOs balance innovation, growth, risk management and cost reduction. They constantly improve their finance function. And CFOs in global organizations drive performance around the world. This role demands mastery of reporting capabilities, full knowledge of the business climate and the ability to plan for the future. A robust big data strategy supports these tasks.

Why should CFOs get serious about big data?

- It can transform the way business decisions are made.
- It can help CFOs become more future-focused and effective.
- It will make the finance function more agile and responsive.
- CFOs are used to data-driven decision-making. This enables them to champion the approach across the business.

For CFOs who succeed, big data can offer new opportunities:

- Increasing top-line and bottom-line growth
- Managing costs and eliminating those which are not driving value
- Improving efficiency by automating processes
- Changing business models to adapt to the new business environment
- Reducing risks
To combine big data with corporate governance, financial analysis and reporting requirements effectively, it is necessary to define an appropriate governance structure with periodical reviews. This structure must respond to the ever-changing regulatory agenda, micro- and macroeconomic trends and client and consumer behavior.

The implementation of a new governance framework should address the whole group structure. And it should make use of big data to ensure a positive impact on risk management, compliance, data security and fraud detection.

Securing a sustainable change in the governance structure requires an expanded understanding of the role of the CFO and the finance function. The following objectives show how big data can be used in the context of a digital world.

**Finance transformation strategy:**
- Transforming the firm into a data-centric, proactive business
- Increasing the focus on business drivers, consumer and client behavior and their demands
- Influencing business decision-making rather than just providing numbers
- Incentivizing processes rather than individual tasks and functions
- Increasing business transparency
- Closing data gaps
- Understanding the value of intangibles

**Finance and operations integration:**
- Getting more granular information on a more frequent basis
- Identifying ineffective and misaligned controls
- Managing improvements and remediation activities
- Optimizing resource allocation
- Selecting relevant technologies and systems
- Creating specific know-how throughout all related business divisions

**Business performance planning and reporting:**
- Monitoring and predicting customer behavior
- Enabling more agile planning and more accurate forecasting
- Making use of non-integrated systems and data
- Improving financial metrics and performance measurement
- Eliminating time lags and closing data gaps in critical business information requests
- Generating out-of-the-box thinking when understanding the capabilities of big data

**Treasury management:**
- Optimizing business performance and shareholder value
- Improving business operations and processes, increasing efficiency and effectiveness (fast data)
- Mining the vast quantities of structured and non-structured data that ends up at treasury and using this data for decision-making in real time
- Leveraging critical information (e.g., trends in wholesale payments and their potential correlation to macroeconomic trends)
How EY approaches a big data project

To unlock the value of your data, your organization will need a change in management practices, a new governance structure and a new CFO role. Making these changes will require a comprehensive and multidimensional project. EY can help, providing transparency in every phase of the project.

### Inventory and assessment
- **Strategy**
  - PMO
  - Project initialization and communication
  - Current situation
  - Target requirements
  - Compare against peers
  - Functional impact analysis and technical impact analysis
  - Process analysis
  - Cost benefit analysis
  - Decision proposal and master plan
  - Big data strategy
- **Organization**
  - PMO
  - Detailed project plan
  - Functional specification
  - DV specification
  - Test specification
  - Concept of operation
  - Alignment of group methodology among group entities
  - Standardized software selection
  - Modeling of target process
  - Interfaces
  - Big data policy
  - Finance model
  - Regulatory model
  - Risk model
- **Processes**
  - PMO
  - Functional support of process and technical implementation
  - Support with requirements of the implementation process (method, processes, organization and documentation)
  - EY’s three-phase approach
  - Testing
- **Methodology**
  - PMO
  - Staff training
  - Functional support during go-live process
  - Review of implemented processes
  - Helping ensure regulatory and data privacy compliance
  - Initial validation
  - Start using the big data value chain
- **Data and systems**
  - PMO
  - Detailed project plan
  - Functional specification
- **HR**

In this publication, we focus on the inventory and assessment phase – the starting point for a big data project. The other phases are also vital for a successful outcome and will vary depending on your needs.

We have highlighted two key elements that we believe are crucial to supporting your big data project: our three-phase approach in the “implementation phase” and the use of the big data value chain in the “operate and review phase.”
Three-phase approach to effective big data use

In order to get a joint view on data-related structures, including the management information system (MIS), EY can perform an inventory and assessment with respect to your big data strategy.

- **High-level benchmarking:** compare your existing architecture against other organizations in the areas of data and systems, methodology, KPIs, KRIs and reporting.
- **Cost-benefit analysis:** shape decisions on the best way to change the MIS architecture.
- **Maturity analysis:** identify areas of your MIS architecture that lag behind leading practice. Where a large gap exists between your current and desired state, we investigate the following areas:
  - Operational
  - Process and policy
  - People and organization
  - Technology and methodology
  - Change management
- **Big data strategy:** identify what data to capture to support your business objectives and create value.

Very few firms fully exploit the potential of their data or even regard it as a corporate asset. EY uses a three-phase approach to unlock the value of data assets gradually. The chart below displays our design and implementation steps.

Each organization will need a large database (big data), but it must be used intelligently. Simply stated, you make better decisions by using the right data to innovate, manage, grow and protect your business.
How your organization will benefit from a big data strategy and plan

The EY Financial Accounting Advisory Services (FAAS) team helps you to:

- Perform a big data assessment, design a big data and fast data strategy, and build a big data architecture in collaboration with our IT Advisory team
- Provide a more comprehensive data set for your corporate governance and finance functions
- Encourage all employees to make data-based decisions, instead of relying on instinct and past experience
- Ensure that the data being analyzed is safe, secure and accurate
- Handle all types of data and analytics, regardless of form or function

A big data strategy will benefit your organization by:

- Providing decision-makers with insights that help them make better, quicker decisions
- Providing better support, management and mitigation of enterprise risk
- Improving your business model by selecting key metrics of performance to link with strategy execution
- Satisfying regulatory and compliance requirements
- Improving your strategic decision-making by analyzing customer behavior

We can assist you in moving to a more data-centric model of decision-making throughout your business and in building the expanded role for the CFO. Our sustainable implementation and extensive support will provide you with a variety of new opportunities, helping you attain the latest leading business practices.

Make use of the big data value chain

Applying a big data value chain can increase added value once the implementation of your new processes and organizational structure is complete. This diagram illustrates the analytics potential of big data:

1. Descriptive analytics
   - Mine past data to report, visualize and understand what has already happened retrospectively or in real time

2. Predictive analytics
   - Leverage past data and behavior history to understand why something happened or to predict what will happen in the future across various scenarios

3. Prescriptive analytics
   - Determine which decision and action will produce the most effective result against a specific set of objectives and constraints

To produce these analytics, a strong collaboration between the business and IT is necessary. In order to get the right answers, it is vital to ask the right questions. Making use of prescriptive analytics marks the change from a retrospective to a prospective perspective, and will enable the continual uncovering of new insights.
Why EY?

- Strategy and organization
- Risk and legal
- Finance and reporting
- Marketing
- Processes
- Statistical methodologies
- Tools and data science
- IT architecture

- Drawn from across EY, our integrated team of treasury, risk, finance, regulation, data and IT professionals have in-depth knowledge and experience on relevant topics and technologies. This enables us to identify and focus on issues that will drive value in your business.

- Our team has extensive experience in the following areas:
  - Holistic enterprise management
  - Business transformation
  - Sophisticated data analytic methods
  - Social analysis and decision science
  - Data collecting, storing, extraction, structuring and processing
  - MIS

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EYG no. AU3004
BMC Agency
GA 0000_01143

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