Business Process Analytics

Unlocking the Power of Data and Analytics: Transforming Insight into Income
Contents

Foreword 3

The power of analytics 4

Is your organization structured to exploit data and analytics? 5

How to manage data as an asset for the entire business 6

The case for a centralized analytics function 7

Sourcing the centralized analytics function 8

How the analytics function can maintain control over decision-making 10

Conclusion: three steps you should take now 11
Foreword

Staggering volumes of data from an ever-increasing range of sources are available to businesses today. That data (and the insight that comes from it) is coming to be recognized as a critical organizational asset. High-quality, real-time or near real-time, business analytics, making appropriate use of “big data”, can deliver significant value by enabling better decision-making and hence better business outcomes.

In practice, however, the value of business analytics is not always easy to realize. Obstacles include the technical challenge of collating, managing, and analyzing vast quantities of internal and external data – both structured and unstructured – to provide forward-looking insight, cost-effectively and in the required timescale.

However, even when companies have well-advanced data strategies and substantial investment in technology platforms and analytical tools, they have struggled to optimize ROI and achieve analytics maturity.

---

The Economist Intelligence Unit Survey: The Deciding Factor: Big Data and Decision Making

The Results:
75% believe their organizations to be data-driven but 9 out of 10 say the decisions they’ve made in the past 3 years would have been better if they’d had all the relevant information.

---

1 Capgemini and Economist Intelligence Unit, The Deciding Factor: Big data and decision-making
Organizational structure is often the problem. It is no surprise that 56% of companies say organizational silos are their biggest problem in making better use of big data. Analytics tends to be carried out within, and applied to, individual functions, whereas to reap the full benefits it is necessary to examine end-to-end processes and impacts across functional boundaries.

To make this possible, companies need a single, operational view of their data, available right across the enterprise. As we argue in this white paper, the best way to achieve this consistent view of data is through the creation of a centralized, specialist function that provides core analytics as a managed service to the rest of the business. This function could be an internal shared service center, or could be created through Business Process Outsourcing (BPO).

Either way, it is time to start thinking differently about how analytics is applied, in order to be able to deliver optimal, insight-based decisions across every aspect of the business. Best-in-class organizations are already seeing results from doing so.

The power of analytics
In every large business, thousands of decisions are made each day: strategic, tactical, and operational decisions. It is increasingly recognized that information, intelligence, and insight are the key to making the right decisions at the right level and at the right time, yet in practice, many decision makers report they do not have enough data. Even routine decisions such as whether to pay a given invoice are often made without reference to the relevant scores and risk indicators.

Reports of inadequate data seem paradoxical given the rapid growth of data volumes – in the medical sector, for example, it has been estimated that knowledge doubles every five years. The explanation is that decision makers are “rich” in data that they cannot interpret, but poor in terms of insights they can use to drive decisions and actions.

Business analytics exists to bridge this gap between the glut of unusable data and the unsatisfied appetite for insights that can inform decisions. But clients tell us that analytics, as currently carried out, does not always achieve its potential. To do so, analytics must generate the type of insights that can truly inform decisions, so that the business can make the right interventions at the right time.

This need points to a different way of delivering analytics from the current norm. Instead of being backward-looking, and focusing on a single point in time, analytics needs to be forward-looking and continuous. It needs to embody the right set of business objectives and KPIs to drive the actions that will meet the organization’s goals (while avoiding “drowning in data”).
It is clear that, approached in the right way, analytics can help a company to tackle its strategic challenges, to respond rapidly to change, and to improve the speed and accuracy of its decisions at every level.

**Is your organization structured to exploit data and analytics?**

Few organizations have so far seen the return that they expected from their investments in business analytics. To a large extent, the problem arises from the way they are approaching it, and from the type of questions they are asking.

Specifically, in applying analytics they investigate questions that reflect the needs of a particular department or subsidiary instead of the needs of the business as a whole. No wonder that in our recent “big data” survey, well over half of respondents cited organizational silos as their biggest obstacle.

Companies can gain immensely by focusing on what counts for the organization as a whole, not just one silo. That means taking an end-to-end view of each process: order-to-cash, source-to-contract, procure-to-pay, quote-to-deliver, marketing campaign effectiveness, and so on. Analytics must therefore cross functional boundaries: its true power emerges when information from different functions is connected.

This approach allows analytics to answer more ambitious questions, like:

- What factors determine whether and how much our customers buy?
- How effective are advertising campaigns and other promotions?
- Where and how should we invest to achieve a particular level of demand?
- How important is speed and efficiency of fulfillment to getting repeat sales?
- How are customers responding to our overall offer, and can we change that using social media management?
- What should our strategy for collections, disputes, and deductions be?
- How much does it cost us to process an inbound order or invoice?
- How can we harness the power of digital marketing and channel mix?

A client found that it was spending an average of €200 to process each order, when industry best practice cost was just €8. Applying business analytics to the end-to-end process allowed it to pinpoint the process steps that were causing inefficiency.

The data needed to answer these and other complex queries is often already available within, or to, the organization. The challenge comes in being able to access and interpret it quickly.
How to manage data as an asset for the entire business

Managing data is becoming an increasingly complex task, involving external and unstructured data along with internal and structured data. Social media data, credit ratings, marketing data from third parties – all these potentially need to be rapidly integrated with internal records, and refined into a useable form, to allow decisions to be fully informed.

Even within internal systems, data is not always harmonized across various ERP installations and subsystems such as procurement, CRM, and accounting. Equally problematic, data tends to be static whereas decisions often need to be based on up-to-date and dynamic information. In addition, people in different parts of the business often conduct analytics working from different data sets that do not match one another closely.

To get the best out of data and enable the end-to-end approach discussed above, data needs to be managed as an asset for the organization as a whole, not just its individual functions.

A central data repository or insight center can ensure that everyone is working from the same data. Analytics and access tools can then be applied to create a variety of windows on this one view. A window (typically in the form of a context-sensitive dashboard) might relate to customer acquisition, business strategy, resource allocation, governance, or procurement, for example. What is essential is that the different windows all look onto the same data – that is, the same absolute truth.

An enterprise-wide approach to data management is a significant undertaking, and needs board sponsorship. It also needs a model for converting data into insights that can inform decisions.

**Data Value Pyramid**

- **Data**
  - Integrity
  - Validation
  - Completeness
  - Management
- **Information**
  - Integration
  - Aggregation
  - Third party data
  - Social media data
- **Knowledge**
  - Application of business analytics
  - Interpretation
  - Propensity models
  - Scoring
- **Decisions**
  - Reports
  - Dashboards
  - Transactional delivery
Getting data right is a prerequisite for creating the insight to drive decision-making. Another equally vital requirement is to have the right expertise available to interpret the data – and we shall argue that the solution lies once again in centralization.

### The case for a centralized analytics function

The essential skills needed to apply best-in-class analytics are in scarce supply. By establishing a permanent, centralized analytics function, an organization can bring together the best analytical skills available to it and harness them for the benefit of the business as a whole. This is the same thinking that has resulted in successful transitions of other support functions to a shared service basis.

The analytics function should be a center of excellence, delivering analytics and insight as a managed service across the enterprise. As well as enhancing speed of development, it should also reduce costs, enhance control, and enable faster and more consistent benefits realization.

The key to deriving value from the centralized function is the application of business process tools that allow transformation of data into insights, and efficient delivery of these insights to the points in the operational environment where key decisions and customer interactions are made.

The function should be equipped with a model like Capgemini’s Global Process Model. This can organize KPIs, benchmarks, and controls for the entire business, helping to achieve harmonization and consistency of approach, and to ensure that analytics outcomes can be used effectively across the enterprise.

People working in the analytics function need advanced skills and talents, including:

- Data science and architecture
- Statistical modeling, scoring, and propensity profiling
- Consulting skills and business knowledge (for discussing requirements with users)
- Data management skills
- Training skills (to teach end users to apply analytics outputs)

---

**The permanent analytics function needs the following characteristics:**

- Is available to the whole business, not just to specific functions
- Is responsible for maintaining data quality and integrity on behalf of the entire business
- Has suitable software tools and partnerships (big data capabilities are imperative)
- Treats analytics tasks as a long-term process, not a one-off problem
- Has a global perspective on the organization
- Has a culture of recognizing data as an asset and valuing the insights it can generate
- Is business-oriented, and knows that the purpose of analytics is to drive decisions
- Has strong management, clear priorities, and accountability for providing value for money

---

**The Economist Intelligence Unit Survey:**

26% is the level of performance improvement already seen from the application of big data analytics.
The cost and scarcity of these skills are not just a strong argument for centralizing analytics: as we shall discuss next, they also strengthen the case for implementing it as a bought-in function or managed service.

**Sourcing the centralized analytics function**

The discussion above points to a new way of organizing business analytics. Instead of tackling analytics tasks on an ad hoc basis, and within particular functions, getting the best out of analytics requires a permanent, centralized organization: one that provides analytics as a managed service to business users.

How exactly you decide to source business analytics is a separate decision from the decision to centralize. You might decide to set up a shared service center internally. Or you might opt for an analytics hub provided via Business Process Outsourcing (BPO) – an attractive option if you cannot afford, or cannot easily recruit, the specialized skills needed.

In deciding how and where to set up a business analytics capability, it is important to make sure that the following are available:

- Ability to understand business processes
- Familiarity with, and expertise in, advanced analytics
- Ability to ensure that analytics drives business decisions
- Appropriate technology solutions and knowledge

Cost implications should also be carefully evaluated. “Pay as you go” options may be more attractive than those requiring a large up-front investment and inflexible ongoing expenditure.
BPO appeals to many organizations, not only because of the skills and funding aspects but also because it can provide virtually instant solutions. Many of the disciplines of business analytics are already available in a form that can be immediately applied to specific challenges within your business.

Capgemini, for example, provides a comprehensive set of business analytics solutions, the most important of which are listed in the table below.

**Analytics solutions available from Capgemini**

Capgemini’s business analytics portfolio is a suite of solutions supported by our global business analytics practice network and insight center. The solutions help clients tackle key challenges in a range of contexts.

- **CFO Analytics**: Exploit the data that you already have to improve financial and operational performance. CFOs get real-time or near real-time insights that allow them to take swift action.

- **Working Capital Analytics**: Reduce capital tied up in inventory and semi-finished goods while maximising availability and service levels.

- **Customer Analytics**: Make your customer interactions more effective and mutually beneficial by combining unstructured social data, transactional web data, and structured organizational data to gain a deep understanding of what customers want.

- **Marketing Analytics**: Our combination of advanced analytics and continuous feedback mechanisms ensures your customers receive the most relevant and timely offers, and that your campaigns become more intelligent over time.

- **Predictive Asset Maintenance**: Information governance and leading predictive analytical modeling can systematically identify the right maintenance and inspection regime. Achieve compliance and minimize unplanned downtime while avoiding unnecessary work.

- **Enterprise Performance Analytics**: Use enterprise-wide insight and an understanding of the impact of key decisions to achieve performance improvements, even when readily-available efficiencies have already been realized, and when competitors can quickly replicate innovation.

- **Social Media Analytics**: Despite the vast volumes of unstructured data involved, advanced text (and other) analytic techniques mean you can hear and understand what your customers are saying and then respond in a fast, efficient, and scalable manner.

- **Advanced Planning & Scheduling**: Improve service levels and reduce operational costs through better use of people, process, technology, and information. Planners can base decisions on the right information via powerful visualization and optimization techniques.

- **Fraud Management**: Gain competitive advantage by using analytics to prevent and detect fraud in a timely manner. Reduce costs and offer a better service to customers and partners, while managing financial, reputational, and punitive risks.

- **Risk Analysis**: Apply advanced analytics to manage risk holistically at enterprise level. Link different types of risk, such as credit risk and market risk, together to get a complete picture. Possible areas of focus include revenue, margin, controls, and cashflow.

- **Spend Analytics**: Develop a better understanding of spend across the organization and identify opportunities for efficiencies and cost reduction.
How the analytics function can maintain control over decision making

Companies need to make decisions fast, but they cannot afford to lose control. Approached correctly, automation of decision-making processes is an opportunity to strike the right balance between speed and control, as well as to save considerable sums.

The need to maintain control is an additional argument for creating a centralized and permanent analytics function, since this is the easiest way to achieve continuity and universality of control.

The process of feeding insights into decisions can be fully automated in the case of operational decisions, and partially so in the case of tactical ones. Strategic decisions may still need to be based on “gut feel”, but analytics can ensure that the right “nutrients” in terms of insights are available to the decision-maker.
Control over decision making can be maintained by building analytics-based checks for each quadrant into the automated decision-making process. The checks will ask questions such as:

- What have we achieved strategically?
- What resources have we deployed operationally?
- How effective have we been at innovation and learning?
- What is the financial impact and are we getting the returns we require?

The questions in each quadrant need to be looked at together rather than in isolation. By using an automation tool such as Capgemini’s Global Process Model to bring the elements together, the centralized analytics function can help enforce consistent controls, enterprise wide.

**Conclusion: three steps you should take now**

There is little doubt that business analytics is best provided as a service by a central function, but organizations need to weigh up the best options for them in terms of sourcing. In the meantime, here are three steps you can take immediately to start organizing your analytics better:

- Identify the important key decisions that your organization needs to monitor continuously this year. Which could be improved if you had better insights into the business and its environment? Arrange these in order of value.

- Review the analytics initiatives already under way in your company. Which ones address the areas identified in step 1? Are there important gaps that are not being addressed?

- Consider what analytics resources exist in your organization already. Which do you regard as most effective? Could they be redeployed to address the gaps identified in step 1? Could a centralized function providing analytics as a service help?

Recent Capgemini research into “big data” and analytics found that for processes where analytics has been applied, companies have seen a 26% average performance improvement over the past three years; they expect it will improve by 41% over the next three.

For best-in-class companies, analytics already informs every aspect of the business. Can you afford not to follow their example?
With around 120,000 people in 40 countries, Capgemini is one of the world’s foremost providers of consulting, technology and outsourcing services. The Group reported 2011 global revenues of EUR 9.7 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Rightshore® is a trademark belonging to Capgemini

More information about our services, offices and research is available at www.capgemini.com

For further information contact terence.sandiford@capgemini.com or visit www.capgemini.com/bpo