



Best Practices Series

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enherent

Developing a Business Analytics Strategy

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Background

The output of analytic processing has been referred to as information, intelligence, insight or knowledge and can be used interchangeably to describe what a company needs to drive business outcomes. It can be descriptive, predictive or prescriptive in nature. Different technologies and methods that deliver this analytic output are lumped into broad analytic categories or sometimes generically referred to as business intelligence. Through the years, we've had to understand knowledge management, predictive models, statistical analysis, text analytics, visual analytics, data mining, dashboards, advanced analytics, and reporting and analysis. But where do these methods and technologies fit in? How do you differentiate one from the other? How do you decide which method best solves a specific business problem? Where do you find the highly skilled resources required to set-up and maintain these analytic environments?

If these pressing questions aren't enough, now the market is buzzing about "Business Analytics". If we step back and look at this holistically, this recent view of analytics may provide us with answers. Since business outcomes are what matter, putting the word "business" in front of analytics provides us with a category that can bring clarity. With this in mind, let's take a look at Business Analytics.

"80% of business is conducted on unstructured information."

"Unstructured data doubles every three months."

Source: Gartner Group

There is no denying the overwhelming explosion of data that can be mined to produce business outcomes. We know that data volumes are doubling at an alarming rate, representing both a challenge and an opportunity. The opportunity to create business value through data is enhanced by the sheer volume of available data. But the challenge lies in producing analytic output that creates this value in a cost effective manner.

Business Analytics is multi-faceted. It combines multiple forms of analytics and applies the right method for each business need. First, business intelligence is all about describing and analyzing outcomes. It focuses on that which has already happened. It deploys traditional query, reporting and dashboard features to enable the analysis of the past. Business Intelligence software increasingly offers emerging visual analytic capabilities that use new visualization methods to make analytic output easy to digest. As volumes of data continue to grow, visualization becomes critical.

Advanced Analytics is the evolution from rear-view mirror reporting to forward looking analysis focused on predicting possible business outcomes. This is sometimes referred to as "Predictive Analytics". Advanced Analytics combines domain expertise, knowledge management, data and text mining, text analytics, statistical analysis, and predictive models. It also leverages the previously mentioned visual analytics. None of these analytic approaches can truly drive desired outcomes in isolation. It is the combination of these methods that creates considerable business value.

Business Analytics can then be viewed as the combination of domain expertise and all forms of analytics in a way that creates analytic applications focused on enabling specific business outcomes. These applications strive to be prescriptive by answering the question: "How can we achieve the best outcomes"? The focus shifts from selecting analytical tools to holistically developing analytic applications.

Target Applications

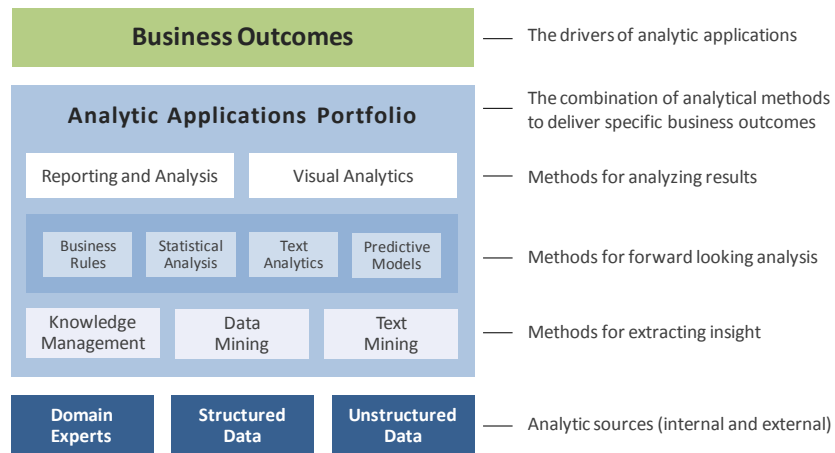
Examples of analytic applications include:

- Fraud Mitigation
- Employee Satisfaction
- Claim Analytics
- Call Center Optimization
- Innovation
- e-Discovery
- Clinical Analysis
- Quality & Safety
- Customer Acquisition & Retention
- M&A Due Diligence
- Reputation Management
- Subrogation & Recovery
- Anti-money Laundering
- Regulatory Compliance

Each of these applications has a set of business outcomes that analytics must enable. For fraud, its reducing loss, for quality & safety, it might be avoiding expensive recalls. Understanding how to enable these outcomes is the first step in determining the make-up of each specific application. For example, in the case of insurance fraud, it's not enough to use statistical analysis to predict fraud. You need a strong focus on text, domain expertise, and the ability to visually portray organized crime rings.

A Framework Approach

What's needed is a framework that maps the various analytic components to the needs of the business analytic application. The diagram below represents a framework for analytic application development.



“90 trillion – number of emails sent on the internet in 2009.”

Source: Radicati Group

“126 million – number of blogs on the Internet.”

Source: BlogPulse

The components of the framework are:

- **Domain Experts** - true business analytics requires domain expertise. All too often, companies buy analytic software thinking it's another piece of middleware, and are often frustrated when results are difficult to attain. In our previous example, without a domain expert that knows how to look for fraud – analytic software is flying blind.
- **Knowledge Management** – acquiring knowledge and expertise from domain experts is only half the battle. Capturing this knowledge and automating its application in a consistent manner is the critical success factor.
- **Data and Text Mining** - new insights are found in structured data and text by using data and text mining techniques. Patterns, trends, clusters and anomalies can all be understood through data mining.
- **Text Analytics** - over 80% of available insight resides in text. Yet almost all analytic efforts today exclude this insight. Business analytics must include the insight from text to be effective.
- **Statistical Analysis and Predictive Models** - the use of statistical methods to validate assumptions and/or predict future outcomes
- **Visual Analytics** - insight from large volumes of data is best represented visually
- **Reporting and Analysis** - traditional Business Intelligence

To assist companies in developing business analytic applications, inherent developed a business analytics platform and framework called Polaris™. The framework allows a business to view the components of an analytic application holistically and puts the emphasis on business outcomes. It's a platform in that if required, it can deliver each of the components of the analytic framework.

Let's take a closer look at the platform/framework distinction:

Analytic Component	Polaris™ Platform	Polaris™ Framework
Domain Expertise	enherent or a partner provides the subject matter expertise required for a given application	Leverages enterprise subject matter experts or other sources of expertise
Knowledge Management	enherent provides dictionaries that capture knowledge and automate its application	Leverages industry taxonomies, internal business rules, or other forms of collective enterprise knowledge
Data Mining	enherent offers SPSS – IBM data mining software	Enables integration with SAS and other data mining software
Text Analytics	enherent offers Cognos Content Analytics – IBM text analytics software	Enables integration with SAS and other text analytics software
Statistical Analysis and Predictive Models	enherent offers SPSS – IBM predictive analytics software	Enables integration with SAS and other predictive analytics software
Visual Analytics	enherent offers Cognos - IBM dashboards and visuals	Enables integration with Business Objects, I2 Analyst Workbench and others
Reporting and Analysis	enherent offers Cognos - IBM reporting and analysis software	Enables integration with Business Objects, Oracle and others

In summary, business analytics puts the focus where it should be – on business outcomes. Ensuring that these outcomes are achieved requires a holistic view that assesses analytic components and ensures that the right components are applied. Starting with a business analytics framework enables the development of applications that deliver the intended business outcomes.

About the author

Frank Diana is an executive vice president who leads enherent’s Business Analytics practice and business. He has nearly 25 years of organizational leadership experience in technology and general management, including more than six years experience with Web 2.0 technologies and business models. Frank has held executive roles with Aelera, Traxian, Fujitsu Consulting and AT&T.

About enherent

enherent, an IBM Premier Business Partner for more than 20 years, is an IT consulting services firm delivering business analytics, enterprise content management and infrastructure solutions to enterprise and mid-market organizations. Our solutions enable clients to gain better business insight, improve decision making and optimize performance to achieve better business outcomes.

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