

Competing on Analytics with SAP

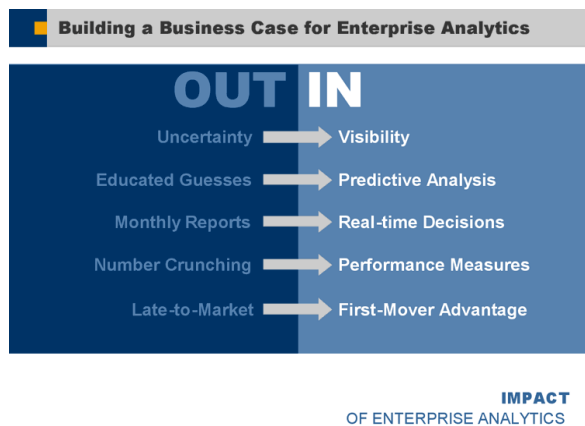
"Some companies have built their very businesses on their ability to collect, analyse and act on data. Every company can learn from what these firms do." – **Thomas H. Davenport**

Introduction

The vast majority of companies still rely upon spreadsheets, fragmented reporting, and anecdotal pieces of information to guide their decisions. Furthermore, in some cases, line managers don't have the ability to analyse their decisions before taking action. The 2007 NZ IT Investment Intentions Survey revealed that 32 percent of respondents plan to invest in advanced business intelligence, corporate performance management, or enterprise analytics solutions in 2007. SAP enables companies to deploy a unified set of analytic applications and decision support tools for all aspects of an organisation.

Enterprises live and die on their decision-making; more specifically on its accuracy, timeliness, and effectiveness. Most enterprise decisions are based at least in part on data analysis, so as the quantity and comprehensiveness of available data keeps expanding, the scope of analytic decision-making expands as well. Data analysis is now central to almost every kind of enterprise decision, from marketing and sales tactics, demand forecasting, and investment strategy, through to budget strategy, supplier selection, personnel decisions, and many more. Accordingly, enterprises have increasingly invested in data warehouses, business intelligence (BI) tools, and other analytic technology. These investments have for the most part been extremely worthwhile.

Superior data analysis can lead to an almost unlimited range of operational advantages including, but not limited to, cheaper supplies, more targeted marketing, wiser investments and a more profitable product mix (See figure 1). Also, enterprises increasingly want or need to provide a range of data to outside stakeholders for their own analysis; indeed, such disclosures are increasingly required by regulators or by law. Despite this, the potential of analytic technology remains largely untapped. Major analytic tasks, for example enterprise planning and budgeting, could be performed much more accurately and efficiently than they generally are today (Monash, 2004)¹.



¹ Monash, C.A. (2004). Analytic Business Processes: The Third Generation. Monash Information Services

Figure 1. The Impact of Enterprise Analytics

In his new book, *Competing on Analytics: The new science of winning*, Tom Davenport (2007)² defines companies that truly leverage available data and “compete on analytics”, as follows:

- **One or more senior executives strongly advocate analytics and fact-based decision making.**

This is critical to success because it will require changing the way in which decisions are made. Since most people fear change it is imperative to have the executive support to lead people in the right direction and break down the barriers.

- **Widespread use of not only descriptive statistics, but predictive modeling and complex optimisation techniques.**

Don't waste time on analytics if you're not going to take action and optimise site performance. While predictive modeling can be very helpful, you can tune things on the fly with live, on-line “what-if” modeling. An ongoing optimisation plan ensures there's a process to take advantage of opportunities you identified through analytics. Don't be afraid of the “complex” optimisation techniques reference. You can start small and basic. When you get right down to it, modeling and optimisation are pretty straightforward.

- **Substantial use of analytics approaches across multiple business functions or processes.**

We don't want data silos, we want attitudinal, behavioral, competitive and customer data all shared in a way different people can leverage it.

- **Movement toward an enterprise-level approach to managing analytical tools, data, and organisational skills and capabilities.**

More than anything, it's important to have an enterprise-level process to analyse, recommend, and act on the data. Analytics tools are making it easier to pull additional data in (almost always other Web data), as well as export it to other systems.

The next section will explore how SAP helps enable companies to “compete on analytics”.

SAP: Serving Analytical Needs

SAP is defining a new value proposition for companies that want to improve the analytical insight of the organisation, share data across all layers of the business, and improve decision making within a firm's workflows. The SAP Analytics platform comprises the strategic and operational analytical tools delivered in SAP ERP. The platform enables companies to deploy a unified set of analytic and decision support tools for all aspects of their organisations. SAP Analytics takes advantage of Enterprise Services Architecture by desegregating analytics and embedding analytical tools and dashboards within actual business process.

² Davenport, T., Harris, J. (2007). *Competing on Analytics: The New Science of Winning*. Harvard Business School Press

Powered by SAP NetWeaver, SAP Analytics combines features of SAP NetWeaver Business Intelligence (SAP NetWeaver BI) and SAP Strategic Enterprise Management (SAP SEM) to provide an analytical platform for the core functions of an enterprise (Figure 2). SAP Analytics delivers over 45 groups of preconfigured analytical processes for sales and marketing, finance, human capital management, operations, and corporate services, including over 750 predefined key performance indicators (KPIs).

Analytics are organised according to individual business processes and with Enterprise Services Architecture, companies can design processes around individual roles and users. The result is smarter applications that fit the individual needs of companies and their employees.

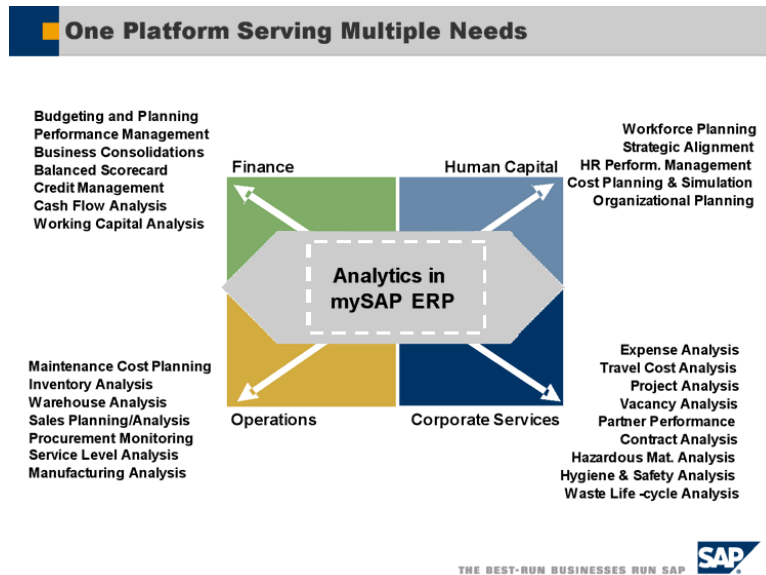


Figure 2. Overview of SAP Analytics.

Business users in sales and marketing, finance, operations, human resources, and other administrative roles, can use a single application to inform business decisions, monitor performance, and examine opportunities to improve individual process flows. SAP Analytics delivers value to multiple areas of the enterprise. For example, the Chief Financial Officer can use SAP Analytics to efficiently manage strategy and measure performance against strategic objectives, thereby increasing shareholder value, reducing financial risk through information visibility, and integrating company finances with CRM and supply chain applications. A human resources manager can perform real-time budgeting and planning, plan headcount, and ensure the alignment of individual performance measures with corporate goals. Operations managers can rely on SAP Analytics to accurately forecast demand, monitor procurement costs, analyse inventory levels, dissect processes that influence cash flow, and analyse how to source goods more effectively.

For example, SAP leverages the most accurate forecasting algorithms (seven variants of exponential smoothing) tested in a large scale forecasting competition³. "Forecast accuracy is the most important and advantageous supply chain metric. A one-point improvement in demand

³ Makridakis and Hibon (2000). The M3-competition: results, conclusions and implications. International Journal of Forecasting, 16, 451-476.

forecast accuracy could yield a two-point improvement in perfect order performance. Organisations with better forecasts gain a 35% shorter cash-to-cash cycle time." AMR (2005)⁴

Companies of many sizes and levels of complexity have been able to understand their business processes better, identify opportunities to improve operations, and set more effective performance targets with SAP ERP. Overall, SAP Analytics adds a powerful new dimension to ERP. It converts the solution from a simple transactional environment into a platform for greater insight and smarter decision making (See figure 3).

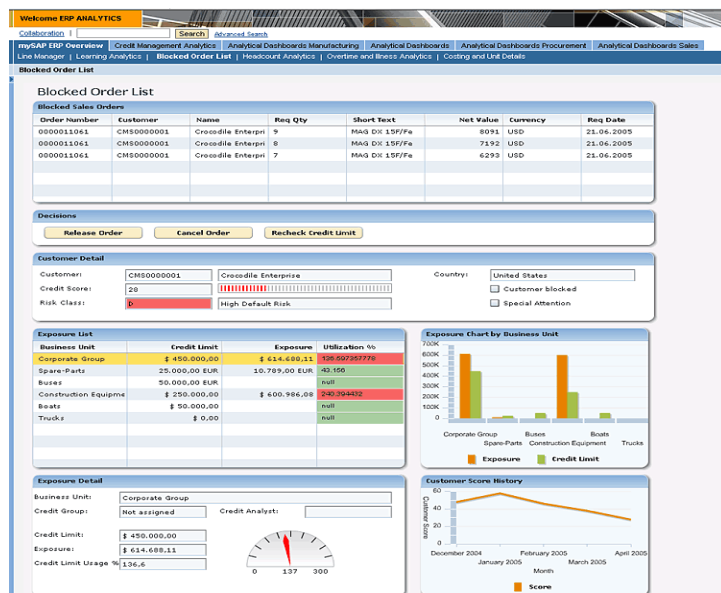


Figure 3. SAP portal showing blocked order list with key performance indicators.

Conclusion

Most companies now have the necessary technology (hardware and software) to take advantage of an analytic approach to decision making and competition. However, competing on analytics requires much more than just technology. It requires senior management commitment and organisational change. Davenport's next steps are summarised below:

1. *Begin to build analytical skills:* It's often difficult to find individuals with the requisite quantitative and business skills. Organisations should start looking for them as soon as possible, and hire them in sufficient volume to create "critical mass."

2. *Get your data in shape:* Analytical environments require large amounts of high-quality data. Figure out what data you really need to advance your strategy, make sure it's being gathered, and clean it up.

3. *Implement analytical technology:* You'll need heavy-duty hardware and software to do serious analytical work. Start putting it in place today.

⁴ Cecere, L. (2005). How do I know that I have a good forecast? *AMR Research Alert*.

4. *Examine your business strategy:* Analytical competition requires a clear business strategy that is optimised with data and analysis. Your executives should begin to consider what key processes and strategic initiatives would be advanced if the right analytics were available.

5. *Find an executive partner:* Since the most difficult factor to put in place in analytical competition is demand from senior executives, you should begin to cultivate that demand by finding an executive partner and embarking with him or her on some analytical initiatives.

To explore how Soltius can assist you in realising all of these steps email Dr Peter Catt, Supply Chain Solutions Manager, at peter.catt@soltius.co.nz