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Becoming Information-Ready for the Economic Revival

Investments in business intelligence and data warehousing environments may have taken a hit in the global economic downturn. But with recovery on the horizon, the time is right to rethink strategy and approach.

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The only thing certain about an economic downturn is that it will end. Therefore, organizations motivated to emerge from the downturn stronger and wiser must begin now.

The days of rationing budgets and manpower are passing, and it is time for businesses to re-group, re-align, re-strategize and re-design that which defines their basic underpinnings. Technology and business processes are so intertwined that CIOs and top IT leadership teams must re-define their strategies around investments in new technologies, processes and models that not only enable but also propel growth.

Business intelligence (BI) should be among the top priorities for forward-thinking CIOs. Successful businesses have strongly aligned their information management strategies and processes with the requirements of their businesses. Amid the unrelenting economic pressures of the last few quarters, investments in BI were curtailed in much the same fashion as other business-critical expenditures. To understand how BI needs to manifest itself in the post-downturn revival, we need to take a closer look at how customers responded to the meltdown in global financial markets and business demand.

In light of financial constraints, there was an imminent need to shape up the BI environment, squeezing efficiencies out of every nook possible. At the same time, many senior managers came to appreciate the role of BI in providing insights that preserved top- and bottom-line performance. Over the last year, our clients have exhibited one or more of the following approaches toward BI:

- **Focus on cost, infrastructure and process optimization:** Reducing the costs of multiple tools and inefficient processes; choosing smaller targets in the face of limited budgets; and embracing the managed services approach to improve ROI of BI investments.
- **Emphasis on revenue channel optimization:** Employing the power of small BI/analytics solutions for top-line cost analyses and improving the availability of cash with financial process improvements.

- **Eye on long-term business strategy:** Ensuring alignment of BI with long-term strategy; tying enterprise metrics to synchronize the entire organization on execution; and improving the way strategy is tracked and managed.

It is tempting to think organizations following the third approach would fare best. Without getting into the “think-long-term” vs. “save-now-spend-later” debate, we need to inspect the key issues that successful organizations must identify and resolve as they emerge from the economic downturn.

- Improve the focus on, visibility of and sensitivity toward the customer.
- Improve the availability and movement of cash through business processes.
- Innovate for a differentiated product/service value proposition.
- Strengthen the brand, even reworking and repositioning it, if needed.
- Have the right team in place to grow faster than the competition.
- Achieve significant benefits from efficiencies in operations.
- Spread to new geographies, markets and target segments.
- Insulate business and operations from any future risks.

All of these business priorities need significant support from a quality-of-information perspective. As a result, each has a bearing on the types of data warehousing and BI services the organization must invest in. A study of the services needed across all of these business needs reveals some interesting high-focus areas (see Figure 1, below, for suggestions on how to approach this).

You might argue that even a strategic initiative such as improving brand strength might have an impact on the BI architecture. However, the findings in the table are based on generic trends we notice across client environments. Four clear areas of importance arise, including Information Strategy, DW&BI Architecture, Data Governance and the Analytical Environment. But what is it in these service areas that clients need to particularly achieve to build a competitive position in the post-revival scenario?

Revamping Information Strategy for Changed Times

In the post-revival scenario, the agility of the organization’s DW&BI strategy will test the anvil of fast-moving business changes. The economic downturn has left most companies in a weakened state. Many of your competitors could already be taking steps to improve competitive positioning to avail themselves of new opportunities. Strategic soul-searching and re-organization across all industries will result in a considerable change in business priorities. As a result, your BI investment plan for the next three to five years needs to be re-inspected, with the aim of developing a clear project roadmap predicated on new market realities.

Consider the following example. A large mobile phone manufacturer that had developed a comprehensive BI strategy and project roadmap early in 2008 had to revamp its entire strategy once the economic downturn became evident. As global demand plunged,

Crafting a Competitive Edge

| DW&BI Service Areas | Business Priorities | | | | | | | |
|---------------------|---------------------|-----------|----------------------------|----------------|--------------|------------|-------------|-----------------|
| | Customer Focus | Cash Flow | Product/Service Innovation | Brand Strength | Organization | Operations | New Markets | Risk Management |
| Strategy | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | |
| Infrastructure | | | | | | | | |
| Architecture | ✓ | | ✓ | | | ✓ | ✓ | ✓ |
| Organization | | | | | ✓ | | ✓ | |
| Governance | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ |
| Analytics/ PM | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Delivery | | | | | ✓ | ✓ | | |

FIGURE 1

its BI budgets took a beating -- only one of the 11 key projects defined for the first year of the roadmap could be undertaken. Several contract employees had to be eliminated. Many of the business leads in the manufacturing and marketing teams were changed.

Approaching 2010, with improved demand forecasted, this company must decide whether its existing roadmap should be continued or re-started. This type of reassessment will be needed across its entire business landscape. A whole new project roadmap with re-calibrated priorities is of critical importance.

As part of its renewed BI strategy, the BI team will need to look at its own structure, ability to support future development and support needs; high-level architecture and infrastructure needs; governance organization and policies; user adoption; and ROI issues (see sidebar, below).

The Implications of a Modern DW&BI Architecture

After years of either thoughtful planning or copy-cat execution, the DW&BI architecture of more advanced organizations now encompasses operational systems, data warehouses, servers and end-user systems. Also expansive is the impact the data architecture can have on business initiatives. Once in place, a modern DW&BI architecture can help provide ready answers to the following business-critical questions:

- Do we have any data available to support this new marketing plan?
- How can we bring together information from such disparate sources as soon as possible?
- Can we move some portion of our DW&BI environment to the cloud?
- Does the architecture support extensive “what-if” analysis?
- Do we have data ready to support all the new KPIs?

Many of these questions hound not only business users but also BI team members trying to address reporting needs. But the need to look at the data architecture has never been more important to ensure proper positioning for the economic upturn, whenever it may emerge.

An online travel services organization realized the need for a centralized master data dictionary when it planned to cross-sell its discount air fares to customers across all of its service areas. Multiple definitions of customers and accounts led to duplication in marketing efforts and costs. Once the standard data dictionary was created, the definition of customers and accounts was standardized across the organization. Additionally, standardization rules applied to address fields helped rationalize the target base for marketing initiatives by one million end users. With a smallish investment in its data management process, the organization was able to save more than \$2 million annually.

Is Your Information Strategically Positioned?

Here’s a five-step approach for assessing the strategic condition of your organization’s information environment.

- Step 1:** Interview business users across teams and collect their information needs for the next three to five years.
- Step 2:** Prioritize these information needs based on your organization’s ability to execute and their inherent strategic/ business value.
- Step 3:** Create a project roadmap based on this prioritized list of activities.
- Step 4:** Inspect environmental needs such as architecture, technology and governance.
- Step 5:** Inspect and plan organizational needs to meet the information needs of the business.

There are many direct and indirect benefits that can be achieved by focusing on the DW&BI architecture. Some of the key focus areas to prepare for the recovery would be data source coverage, enterprise data definitions, embracing new technology options (like the cloud, SaaS, in-memory analytics) and the robustness of data models to support analytical needs.

Time for Even More Stringent Data Governance

Close on the heels of an agile DW&BI architecture lies the need to implement control systems that promote security, quality and standards in the information environment. The need for governance has long been established, and its role becomes all the more critical for businesses looking to insulate themselves from further market turbulence and security risks. However governance activities such as master data management, metadata management, data quality/ profiling and data architecture are so large in terms of effort and investments that launching into a full-on data governance program would be going overboard. A more pragmatic, step-by-step approach, driven by strategy and investment, is the need of the hour.

In the post-revival scenario, the agility of the organization's DW&BI strategy will test the anvil of fast-moving business changes.

To illustrate the key challenges -- and concrete solutions -- let's examine a potential scenario, that of a major bank formed through the merger of two somewhat smaller banks. In such a scenario, the data assets of the organization would double overnight, and so would its governance challenges. In response, the BI team should adopt a piecemeal approach to address the entire gamut of challenges and design a three-year roadmap. For instance, the team should first be established as a BI competency center, followed by an assessment of the environment and creation of the integration plan. These activities will take up the better part of the first year of the program.

As the integration gets underway, a smaller team should be tasked with the job of creating an enterprise metadata repository within a quarter of the year. Data cleansing exercises would have to be conducted on a needs-basis.

In the roadmap's second year, the bank would need to tackle key information security and regulatory reporting projects. Breaking down the large conundrum of data governance into smaller, seemingly achievable targets would help the bank create a much-improved data environment for its users. Organizations trying to create a competitive information environment need to take a similar hard-boiled, structured approach to data governance.

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Better Business Performance through Analytics

The era of competing on breakthrough product or service paradigms is passé. Mature businesses are now in an optimization strategy phase, where the need to have, know and understand data is central to understanding "how optimum non-financial performance can drive optimum financial performance."¹

As global business conditions improve, organizations will look to consolidate their financial positions, focus on new markets, better understand customers' buying behavior and, finally, cross-sell and up-sell to them. All of these will involve the use of analytical methods on underlying data.

A recent example of the increasing importance of business analytics is a logistics firm that tracked empty-miles all the way up to individual trucks, delivering real-time predictions on its ability to optimize the usage of empty-miles. Business managers used this analysis to improve transportation plans and save the business \$12 million annually.

Business and IT specialists seeking true transformations through technology need to invest interest and resources in this area where performance metrics, heavy-lifting analytical algorithms and innovative information delivery combine to form the most formidable ally for business process excellence.

Preparing for the Future

The following checklist can help you assess your current business unit needs and prepare for the next economic cycle. The more checks your company has, the better positioned it is for the expected upswing.

Information Strategy

- Do you know the business priorities of all business units for the next three years?
- Have you developed a project roadmap based on these business priorities?
- Have you taken into account all organizational changes in the business teams?
- Do you have a BI competency center based on best practices espoused widely in the market?
- Have you followed a detailed estimation process to understand resource needs for the competency center?

DW&BI Architecture

- Do you have an inventory of all data assets in the organization?
- Have you established common data definitions across all business units and teams?
- Have you analyzed which information needs can be addressed through more economical cloud- or SaaS-based models?
- Do you understand the analytical needs of all business users across functions?
- Is your data model suited to all current and future analytical needs?

Data Governance

- Have you formed a team that controls the data environment in a centralized manner?
- Do your business users feel confident regarding the quality and credibility of the information supplied to them?
- Have you established common data and KPI definitions within the organization?
- Do you feel the information management environment is secure?

Business Analytics / Performance Management

- Is every associate aware of his/her performance and contribution toward the achievement of the organization's strategic targets?
- Do you have key business leaders in every business unit and function who are strong advocates of analytics and performance management solutions?
- Are you using predictive modeling and complex optimization techniques along with descriptive statistics?
- Do you use analytical approaches that cut across business functions or processes?
- Have you identified high-value areas (in terms of business potential and impact) to invest efforts in creating analytics/ project management solutions?

Information Readiness for the Next Business Cycle

With the BI strategy, architecture, governance and analytical capabilities in place, organizations will be better positioned to support business needs around improved competitive performance, and they will be able to deliver better overall value to the customer. You can guarantee this by testing your readiness with our checklist (see sidebar, next page).

As organizations emerge from the downturn and look toward building business momentum, their technology investments must focus on improving overall information availability and quality. With their base data in good shape, the organization should then work on those transformations that the data can bring about, namely, leveraging high-quality information for better decision-making by the business. Also, while success of this approach does depend on how the organization invested in technology during the recession, it is much more dependent on how these investments are re-shaped and redeployed from this point forward.

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Footnote

¹ *Competing on Analytics: The New Science of Winning*, Tom Davenport, Jean G. Harris, Harvard Business School Publishing, 2007.