Why Think Globally, Act Locally Applies to BI

A White Paper by:
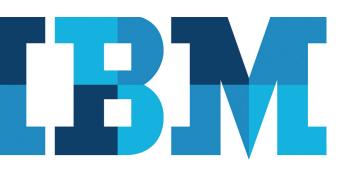*Dave Kasabian, Pervasive Performance Group*

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Introduction

This paper is summary of the 3rd webcast in a series sponsored by IBM and developed specifically for IBM Cognos Innovation Center for Performance Management members. The series is designed to empower IT and Business Unit managers to develop a strong business case for the return on investment (ROI) of their business intelligence (BI) initiatives and effectively communicate that value to their business leaders. The series will help you:

Get the attention of senior management; Position the business value of BI to their specific needs and wants; Obtain management buy-in and approval for BI investments

The 3rd webcast in the series focused on how to balance the demands for low cost and quick time-to- value with the broader benefits of an enterprise-wide Business Intelligence strategy.   The balance between the two is found in a hybrid approach to BI that entails thinking globally but acting locally.

The Silo Approach vs. the Big Bang Approach

Most enterprises tend to choose between implementing tactical BI initiatives targeted at very specific requirements for a limited user community or a broad enterprise-wide approach that is focused on corporate requirements and driving standardization across the organization. Each of these approaches has merit but each also has its shortcomings. As a BI strategy is being defined it is important to consider the benefits of these two approaches as well as the potential of a hybrid approach that can bring some of the best of both worlds to your BI strategy. The key is to understand the advantages and disadvantages of each approach and weigh the importance of each to your specific organization. By going through this evaluation you will make a more informed decision about which of these BI strategies will deliver the most value to your organization.

The Silo Approach

In the silo approach specific BI needs are dealt with on a case by case basis. It could be defined as a 'one-off' approach to BI. As needs come up, the specific need is defined and scoped and a product is selected and implemented to meet that specific requirement. Very often this is done within the business unit without oversight by IT or with any sense of, or communication with, other BI initiatives that may be going on in the organization. These types of deployments tend to be functionally focused around a specific process, for instance sales analysis or financial analytics with little if any cross- pollination of data across functional areas. This approach can be quick to implement but can also result in a proliferation of data marts without common definitions or consistent data sources.

The Silo Approach has its Place

The silo approach tends to work well in an environment where the data is specific to that functional area and is not influenced by or related to information from other parts of the organization. An example where a silo approach can make sense is a business whose customers are specific to a single region. A customer analysis application for that specific region can be very impactful in optimizing customer profitability and cross-sell/up-sell opportunities within the region without the need to pull customer specific information from other regions or provide customer specific detail data to corporate. This application could be built without the need to establish corporate standards for customer definition or the need to build integration to/from multiple data sources which reduces the cost and shortens the time to value of the solution.

In the above example a region can develop an application that delivers value quickly without the need to define and implement corporate standards, governance, or integration. However, this approach would not make sense in an enterprise where customers cross regions because common definition of customer and the ability to see all data from all regions for a given customer would be crucial to optimizing the value of that customer across the enterprise.

Weighing the Merits of the Silo Approach

It is important to understand the scope of user, analysis, and decisions that BI will drive; and the relationship across the organization before making choosing the silo approach. In a given organization some of the flaws inherent in the silo approach will be acceptable or in some cases unavoidable. In others the time frame or budget are so tight that the silo approach is the only viable option. Table 1 describes some of the pros and cons of the silo approach. Use this table as a starting point for evaluating the silo approach to BI and its viability as an option for your organization. Applying a weighting to each of these pros and cons will help prioritize the most important benefits (and risks) for your organization in taking the silo approach to BI.

Table 1 – Pros and Cons of the Silo Approach

Pros	Cons
Time & Cost	Data Consistency & Accuracy
Data Acquisition	Resource Efficiency
Autonomy & Flexibility	Proliferation
Business Needs vs. IT Standards	Governance & Compliance

Pros of the Silo Approach
Time & Cost

Typically the silo approach can be implemented more quickly and at lower cost than an enterprise approach. There are several reasons for this most of which are related to the more limited scope of silo initiatives. These types of initiatives are often owned by the business unit rather than IT. The business may opt for a low cost, low IT deployment option such as hosted or Software-as-a-Service (SaaS) solutions that require no capital expense and monthly subscription pricing that provides a low barrier to entry. These options give the business more control over their own costs and scope without "interference" (or cost allocation) from IT. Whether on-premise, hosted, or SaaS there is less software to buy, less hardware to buy, fewer technical resources required for data cleansing and mapping, and no standards to create and enforce with the silo approach. All of these add up to a lower initial cost of ownership than an enterprise-wide big bang approach.

Data Acquisition

In the silo approach the data required to meet requirements can be found in a single data source. In most cases data is already being extracted from an existing source so there is no need to develop integration with multiple sources or create common definitions and map data into a common structure. The limited need for ETL, data mapping, and data quality reduces the time and cost of getting a BI application up and running.

Autonomy & Flexibility

Business units embrace silo solutions for their ability to provide information rapidly and adapt quickly to changing requirements. They can choose the best solution to meet their specific needs rather than having to accept an enterprise standard. The business can often be more self-sufficient and independent from IT bandwidth issues that can plague enterprise-wide deployments. With this autonomy comes accountability with little room for finger pointing (or assistance from) IT when issues or emergencies arise.

Business Requirements vs. IT Standards

Via the silo approach the business can establish fast time to value around specific business requirements without being dependent on IT or on consensus across the company. The business gets to choose the tools and applications that best fit their requirements rather than corporate standards that may not be best-of-breed for their specific needs.

Cons of the Silo Approach
Data Consistency & Accuracy

Because there is no common standardization of data definitions or validation of data sources, there is potential for redundant, inaccurate, or incomplete data and multiple versions of the truth across the organization. While not an issue when data is isolated, it leads to debate about whose numbers are correct when data is shared cross functionally. This can negatively impact the credibility of BI as a potential enterprise-wide solution.

Resource Efficiency

Each silo is often maintained by a different business analyst with minimal IT support. This creates a dependency on individual resources with a certain skill set and knowledge of the solution. The resources become too specialized and their skills are not transferable to other BI opportunities. The silo approach makes it difficult to pool resources, transfer knowledge, or leverage best practices and experience. Resource inefficiency does not only apply to human resources. It also creates inefficient use of software and hardware which drive up the overall cost of BI for the organization.

Proliferation

Without standardization the number of BI tools, data, data marts, and skill requirements can become onerous. It becomes more difficult to understand which tool to use when I'm doing sales analysis vs. financial analysis, where do I find the right data, and who do I call for help. This proliferation drives up the overall cost and further isolates the silos of BI in the organization. It makes it difficult to cross- pollenate the silos and restricts collaboration across functional boundaries.

Governance & Compliance

Since data is sourced in isolation in by the business without governance it is difficult for corporate to trace the sources, verify the accuracy, and provide the level of detail necessary to meet compliance requirements. This makes automating compliance and regulatory reporting or early detection of compliance deficiencies or risk nearly impossible.

The Big Bang Approach

The big bang approach is defined by going for an enterprise-wide deployment of BI right out of the gate. In the big bang approach there is a corporate edict that there will be a unified and consistent approach to BI that will be governed and rolled out globally and governed centrally.For this approach diverse requirements have to be gathered, compiled, vetted, and prioritized. With diverse business requirements come diverse data requirements that need to be defined and sourced which requires more IT involvement than the silo approach.

The diverse business requirements and the need for enterprise standards make the big bang approach a challenge to govern. It will likely require a high level executive sponsor, a steering committee and a BI Competency Center (BICC) or Center of Excellence (COE) to be successful. The big bang approach and can be politically charged as there will be conflicting requirements and resource constraints that must be managed.

This approach requires not only a senior C-level executive sponsor but also a willingness to absorb upfront costs to develop a BI strategy, standards, and governance and a longer (but more substantial) time-to-value than the silo approach. Like the silo approach there are several risks and benefits that should be weighed before embracing this option.

Table 2 – Pros and Cons of the Big Bang Approach

Pros	Cons
Single Version of the Truth	Time & Cost
Economies of Scale	Finding Consensus
Shared Service	Lack of Autonomy
Transparency/Compliance	Inflexibility

Pros of the Big Bang Approach

The pros of the Big Bang Approach tend to revolve around efficiency and consistency that are more difficult to accomplish but bring significant value.

Single Version of the Truth

One of the key factors that drive enterprises toward the big ban approach is creating a single version of the truth. This is the panacea of BI: having all users accessing a single trusted source for all BI data. Definitions, metrics, metadata and data are common across the enterprise. This eliminates the "whose data is the right data" debate that can occur in the silo approach. This approach often entails deploying an enterprise data warehouse (EDW) that maintains a reliable, accurate, and clean data environment that houses that single version of the truth.

Economies of Scale

The big bang takes advantage of resources, skills, infrastructure, software and tools globally rather than in pockets. This is often maintained by BI Center of Excellence or Competency Center that governs and disseminates standards and practices across the organization. Consistent use of tools, processes, definitions, data, reporting, and analysis create economies of scale in development, roll out, and ongoing support of global BI initiatives.

Shared Service

Just as a shared services strategy can be cost effective for Human Resources, Finance or IT, so too can it be for the big bang approach to BI. Enterprises that have a shared services culture may be attracted to the big bang approach because it is more conducive to a shared services environment than the silo

approach. Shared service can eliminate redundancies, create efficiencies, reduce the total cost of BI, and allow for allocation of BI costs across the organization.

Transparency & Compliance

Because of the single version of the truth in the big bang approach, compliance and transparency are easier to achieve. All BI data is traceable back to the validated data source for BI and the data in that data source can be traced back to its original source. The hub and spoke structure of the big bang approach makes data transparency and compliance reporting much easier than in the spaghetti structure of the silo approach.

Cons of the Big Bang Approach

The advantages of the big bang approach are compelling so why doesn't every one do it? Because there are tradeoffs that need to be made in going with this approach most which revolve around cost, time, and culture.

Time & Cost

The initial cost of ownership of the big bang approach is higher than the silo approach. All the scoping; requirements gathering and vetting; data sourcing; standards definition; and governance policies take time and resources to develop. It is time and resource intensive to define, build, and maintain an EDW that has all the data everyone needs especially in a dynamically changing environment. This can escalate the initial cost and delay the time-to-value of BI which some businesses are not in a position to absorb. All of these things drive up the cost and extend the time before value can be seen. With the big bang approach there is not much perceived value delivered over the first 4-6 months which can derail big bang initiatives in organizations with a short attention span or low risk tolerance.

Finding Consensus

The big bang approach requires consensus. There are often political barriers and infighting about what definitions to standardize on, who should own certain data, and what governance policies should be in place. The political battles can be distracting, time consuming, and require compromise that some organizations have trouble accomplishing. Having a strong executive sponsor who is willing to be the arbitrator, and when necessary the tiebreaker, is important to building the consensus that is necessary for the big bang approach.

Lack of Autonomy

For better or worse the complexities and breadth of the big bang approach are best managed by IT. This will sometimes create animosity within the business units. The business may perceive the big bang as an IT driven project rather than a strategic business initiative. They will have a higher dependence on IT than they would with the silo approach. It is important that the business side is heavily involved in requirements and scope definition and represented on the Center of Excellence and/or Steering Committees. This will help offset the perceived lack of autonomy and lack of control that makes the business hesitant to embrace the big bang approach.

Inflexibility

The big bang approach can be viewed as inflexible and monolithic, rather than dynamic and responsive. The fear is that it will be too slow to develop and deploy, slower for queries and reporting because of its sheer size, and harder to adapt to changing business conditions and requirements. Lack of flexibility breeds frustration and lack of trust if the departments don't get what they want but rather they get what they are given. This "Big Brother" effect can be offset by reducing the dependence on IT and providing self-service reporting and analysis capabilities to the business.

A Hybrid Approach:
Think Globally, Act Locally

Think Globally, Act Locally is a hybrid approach that can provide an organization with some of the best of both worlds. This approach bridges the gaps between the Silo and Big Bang approaches. Like the silo approach it starts in a division or function and focuses on a specific measurable pain and its scope is limited to resolving that pain but in the context of strategic goals.

Local Pain, Strategic Goals

In his approach time is taken to tie the scope and results to the strategic goals of the organization. Even when targeted at a specific area like inventory or supply chain optimization or customer analytics the measures of success are defined in terms that are aligned with the strategic direction. For example, a supply chain initiative may be focused on improved supplier performance but the impact on the strategic goals of cost and risk reduction would also be measured.

IT Standards, Business Autonomy

The think globally, act locally approach blends the standards and governance of the big bang approach with the autonomy and flexibility of the silo approach. There are some things that can be standardized, controlled, and governed without impacting the autonomy of the business. Corporate standard dimensions and reporting can be established and enforced without forcing standardization of the details within each area. Let IT manage enterprise data and security but allow the business to augment with additional data that meets their specific needs but might not be needed by, or controlled by, corporate. Set recommended standards for BI tools and incentives for choosing the standard but also set up a streamlined approval process for exception handling to reduce the motivation in the business to create rogue initiatives that circumvent the process.

There is a balance that can be found between autonomy and governance that will establish a reasonable amount of standardization and governance without stifling the flexibility of the business to use BI to meet their specific needs. Table 3 outlines how to embrace the think globally, act locally approach.

Table 3 – 10 Steps to Thinking Globally, Acting Locally

Step	Description
Define	Think about where you should start. What BU or function is starving for BI? Does the data exist in an agreed upon structure and sources? Is there a quick win that can be marketed and will it be compelling to the rest of the organization?
Scope	What process will you go after? What data is required? How will the project be phased? What are the success criteria (both local and strategic)? Be as diligent about what is not in scope as you are about what is in scope.
Align	How does a local initiative align with the strategic goals of the organization? How will the achievement of local goals impact the achievement of strategic goals? Define the measures that will track this impact.
Standardize	Determine what can and should be standardized. Focus on standardizing the "plumbing" first, common metrics and definitions second, but leave room for supplementing the standards to allow autonomy in the business. Standardize the rule not the exception. If its not really standard, don't standardize it.
Govern	Establish processes and committees to govern the standards that are put in place. Ensure business is well represented. Communicate what will be governed, what will not, and the business reasons why.
Except	Create incentives to use the standards (skilled resources, procurement assistance, best practices). Plan for exceptions and build a process that evaluates exception requests quickly and consistently.
Test	Treat it like a pilot or beta. Even though the scope is limited to a specific need and user community show it to other potential BI users, get their feedback and incorporate it into future phases.
Adjust	One of the knocks on the Big Bang approach is that it is not responsive enough to change. Adjust based on feedback, evolving business objectives, and environmental changes. Responsiveness will be a key to acceptance.
Expand	How much better would the initiative be if we were to expand the scope? For example if we could include bookings, inventory, and invoicing information in our sales analysis or how much cross-selling could we do if this included global view of customers. Always tie expansion opportunities to strategic initiatives.
Repeat	Treat BI as an ongoing initiative, it will likely never end. As you find areas for expansion start the process again and learn from each one. Similar to a company that does a lot of M&A, each time the process should get easier and more efficient.

Summary

A strategic enterprise-wide approach to BI is the best approach for some organizations but may be too expensive or too long for others. Often a hybrid approach brings the best of both worlds delivering some level of control and governance while more quickly addressing pressing needs with a lower initial cost of ownership. It is important to evaluate the best path for your organization before starting on the journey.

About Pervasive Performance Group

Pervasive Performance Group is a provider of advisory services on performance management and business intelligence. Our focus is helping businesses expand performance management from finance or IT-centric initiatives to an enterprise-wide and enterprise-deep approach that increases the return on their BI and PM investments.

Pervasive Performance Group provides advice, insight, and direction that help businesses recognize and break down the barriers that inhibit wider deployment and limit return on technology investments.   Our services help companies progress to a performance-driven culture that empowers IT to expand the reach and impact of technology. We do this by helping companies recognize the tangible and intangible value of expanding performance management from isolated initiatives and departmental fiefdoms to a collaborative performance culture.

About IBM Cognos BI and Performance Management:

IBM Cognos business intelligence (BI) and performance management solutions deliver world-leading enterprise planning, consolidation and BI software, support and services to help companies plan, understand and manage financial and operational performance. IBM Cognos solutions bring together technology, analytical applications, best practices, and a broad network of partners to give customers an open, adaptive and complete performance solution. Over 23,000 customers in more than 135 countries around the world choose IBM Cognos solutions.

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