

## White Paper



### Establishing a Business Intelligence (BI) Self Service Platform, part I

Empowering the business users to access information they need, on-demand, without impact to IT

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#### Background

Through the years, I have been witness to many Data Warehousing projects that started as an effort to help business users make decisions using information and along the way transformed into data centralization exercises. Somewhere during the project execution, teams lost focus on what the organization needs, and got tangled in the complexity of data. The data warehouse became an information bank, storing all valuable data elements into an electronic vault.

The expectations from the project teams were very similar, all making assumptions under the principle "If we build it, they will come". The teams believed that if they could put enough valuable information in a single location, the business users would come knocking on the door, begging to be given access to the information. Reality proved them wrong, as the expectations from the business users grew disproportionately given the amount time it was taking IT to complete the project. Business users expected a silver button, kind of "click here and your information problems will be solved", but instead they got a mountain of disorganized data. As a business user colorfully put it: "(finding information in the Data Warehouse) is like going through a huge bin of laundry trying to find your favorite pair of socks. You know they are in there somewhere, but when you can not find, you really start getting frustrated"

If anything, the early data warehousing efforts did make the business users realize the value that information could bring to business operation. The business community also concluded that waiting for IT was a long and tedious process and at the end they were not getting what they needed. The solution was simple: many business teams started hiring their own “shadow” IT organizations, bringing people who had the skills and knowledge of the systems into functional areas bypassing IT controls and governance. The irony came as the data warehousing effort was supposed to bring the data into a single location, but these spawned initiatives looked to solve specific business problems by creating small functional data marts across the enterprise. Some other organizations went as far as to look for outside help, asking 3rd party companies, and some times their own vendors to provide insight into the operation of the business by looking and analyzing the data. Although “more responsive than IT”, these functional silos became very expensive to maintain as they did not encourage knowledge sharing, resource pooling or reusing components across departments. Further, as different people were using different methods and sources to retrieve and calculate the data, it became a rare occurrence for the numbers to match.

After some time, someone invariably would question the amount of money and resources being dedicated to these internal/ external reporting and analysis teams. The findings were shocking; in many organizations, these informal IT groups were bigger than the official IT Business Intelligence team. People would slowly start to realize that they could merge all these teams into a single Business Intelligence (BI) organization with a significant impact to the bottom line. However there was still some hesitation to form a core BI team as they did not want to repeat the errors from the past. A fresh approach was needed, and so the idea: what if IT could provide “The Platform” that enabled the Business for Self Service across the Enterprise. The idea was intriguing, what was lacking was the know-how to make it happen. This article will focus on defining the concept of enabling a Business Intelligence Self Service Platform in the Enterprise and then lay the foundation to make such an idea a true possibility in any organization today in the subsequent parts.

## Defining a Business Intelligence Self Service Platform from a business perspective

We can easily define “Business Intelligence Self Service” as a service provided by an open Business Intelligence platform that enables business users to access the information they need by themselves, using an easy to understand User Interface (UI) that is defined in business terms and not IT jargon. Perhaps the most critical feature of such a service is to eliminate the “IT touch” for the users to create new reports. The platform should support the capability to combine existing data elements into a custom report; it goes beyond providing ad-hoc capabilities to truly enabling a creativity engine that makes it possible for the business users to follow the Information Analysis Cycle (Figure 1) quickly, and without calling for IT support.

In order to better explain the concept of a self Service BI platform, let’s follow the Information Analysis Cycle in a typical Retail Merchandising scenario: A cake mix vendor, MiaCake, is in a grocery retailer buyer’s office arguing his company needs to raise prices 15% because of high fuel prices.

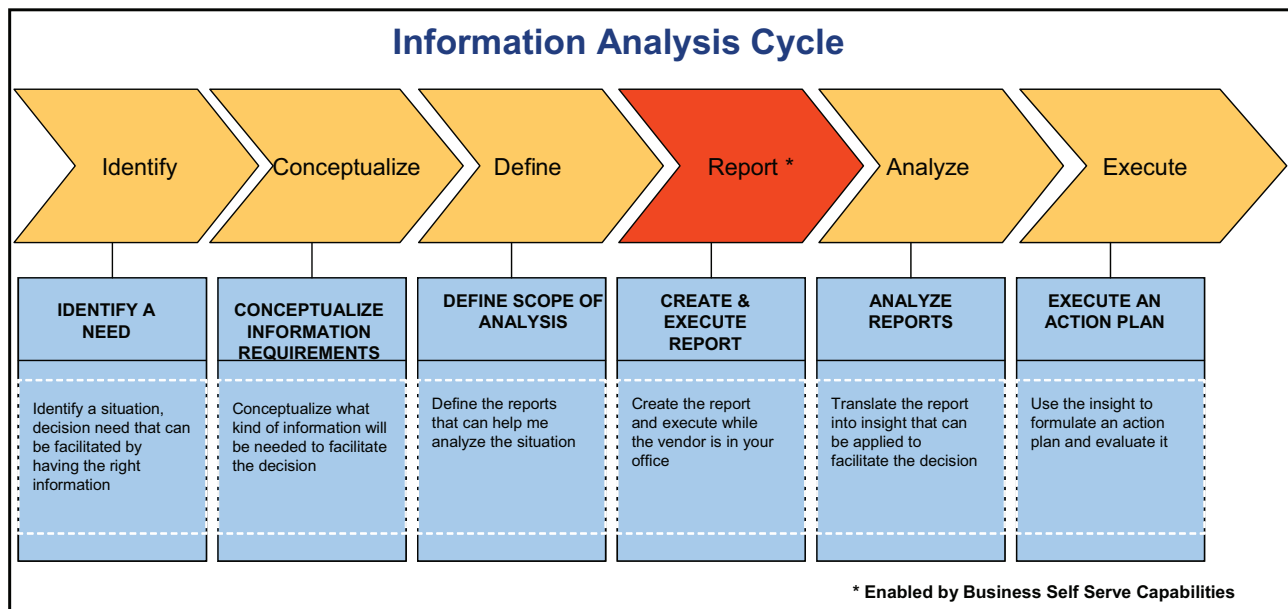


Figure 1 Information Analysis Cycle

The buyer is skeptical as he does not know the effect the increase will have on the consumer behavior. He starts conceptualizing how to measure the potential effect. He remembers that three months ago the competing brand was on sale and the difference in price was about 15%. He writes a report comparing MiaCake's sales and the competing brand sales during the week the competing brand was in promotion, using the company's BI platform that, by the way, enables him to create his own reports and analysis on demand. One minute later with the seller still at the buyer's office, the report comes backs and shows sales were down more than 30% for MiaCake, as consumers quickly shifted to the other brand. The vendor is shocked by the results, but can not argue against the data being shown. He then calls his manager and decides to raise prices by 5% only in order to maximize revenue.

As depicted in the example, timing is everything. If a Self Service Platform had not been present, the report might not have been possible to build without IT intervention. The vendor and the buyer would have had to resort to non-factual arguments probably leading to a less profitable scenario.

## Why enable a Business Intelligence Self Service Platform?

As discussed, enabling a common Business Intelligence Self Service Platform can have a positive financial impact on the organization. Once business users get familiar with the platform, and realize how easy it is to create and execute reports, they will start using facts to make decisions instead of gut feel; thus enabling the next level of enterprise maturity by creating repeatable/reusable strategies that can be leveraged and shared across the organization. A common framework created can allow interdepartmental communication and collaboration to socialize the findings and strategies resulting from the new capabilities; providing management with the tools they need to establish common goals, and define the base methodology to achieve and measure those goals.

In many companies, Business Intelligence platform has become the engine for positive change reaching into areas that were not traditional information customers, transforming their day to day operations, and making them more efficient and objective.

IT will also perceive a significant change. As it becomes a capability provider, it is teaching business users how to fish, instead of using it to fish for them. This change in paradigm will free the resources that were previously consumed by servicing individual information requests and redirect them on growing the number of services offered by the platform, thus enabling IT to become a strategic partner with the business.

## How to Enable a Business Intelligence Self Service Platform?

Enabling a true Self Service BI platform has to be done across three different components: People, Process and Technology (Figure 2).

Each component highlights a different focus that complements the others:

### People

In order for the platform to be functional, it has to be implemented with a complete Business focus in mind. If preferable someone from the business should lead the initiative and clearly define how the new platform is going to impact operations. Further, change management strategies should be clearly outlined and the project plan should allocate sufficient time for them. The business lead should establish a vision for the future that energizes and sets the expectations as to what to come from the platform. A training plan should be designed that takes into consideration the different skill levels of the users to make sure all users will be able to get the most of the new capabilities and they won't revert to old habits.

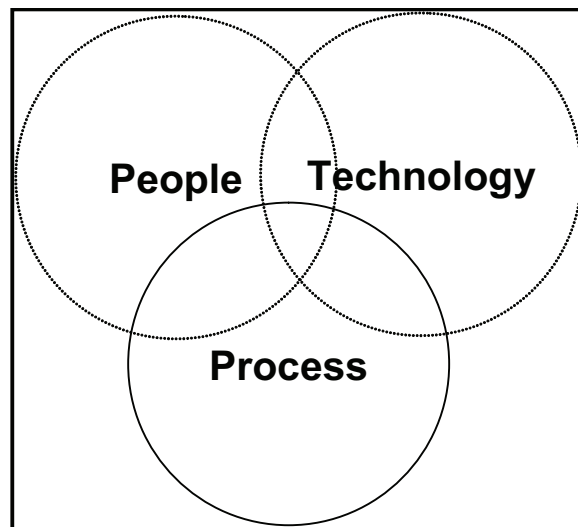


Figure 2 Components to enable a true self service BI platform

## Technology

Once the direction of the initiative has been set, it will be critical to align the technology components to support it. Establishing a common infrastructure, both on the database platform and the BI toolset suite will be vital to the success of the initiative. The database platform will have to provide a stable, scalable environment, adding capacity as the business matures and as the data volumes and users grow. A robust data model will be required that can capture the nuances of the business, and most importantly how do they relate and fit into the enterprise. In order to overcome technical complexities of the data and facilitate use to the business community, there is a need to establish a common metadata business layer. This metadata layer will isolate the user community from technicalities and enable them to use the data based on business meaning.

Canned/Pre-defined reports will have to be set examples on the capabilities of the platform; these will be used as base for subsequent analyses, thus providing the first level of analytics out-of-box.

Last, but not least, the BI platform will have to be robust enough to provide a graphical report builder that facilitates the business users to create their own reports. Furthermore the BI platform will need to accommodate advanced capabilities, such as:

- **Advanced drilling:** the capability to navigate across the data either up/down or across hierarchies
- **Real time/ near real time data:** the concept of streaming information as it happens to minimize the time the users need to wait for the data being available.

## Process

In order to bind technology and people a process has to be established. To successfully kick-off a Self Service BI platform, a common, well defined, process will be required to provide the initial support to the end users. As IT won't have the business knowledge to help the business users translate their information needs into reports, a hybrid group, the power users, will need to be created. This group will be composed of business users who are early adopters and understand the technology, as well as, the business needs. They will be the liaisons between the business community and IT. IT will be responsible for maintaining the platform and adding additional data elements from different functional areas.

A straightforward process should be published that outlines the different levels of support, so that the business community knows whom to contact and what to expect from this interaction.

## How to measure success implementing a Business Intelligence Self Service Platform?

Defining clear goals is perhaps the single most important action item while implementing a BI Self Service platform. Key Performance Indicators (KPI) will have to be baselined against organizational goals (e.g. Out of my user universe how many use the platform daily, weekly, monthly at all?) These measurements will highlight strategies to promote the use of the platform, and benefits across the enterprise.

One of the favorite strategies to promote the use of the platform is to focus on specific initiatives, measuring before and after; if possible have the champion of the initiative give a lunch & learn to the user community; reporting first hand the positive impact the platform has had in her/his business. (e.g. a deli Vice-President decided to measure the sales of rotisserie chickens. She found that the stores were not making them as they did not know how many to produce at a particular time. After running a couple of reports on sales by hour she was able to put together some guidelines as to how many chickens and when to cook them. The results were amazing. Sales went up by 5,000% in one week, the store associates were impressed by the knowledge the VP had shown about the business, and their specific store) The rotisserie chickens story became an urban legend within the company, inspiring, and energizing people to match the deli success in their department.

### Conclusion

Implementing a Self Service Business Intelligence platform in the Enterprise is not a simple task. It requires aligning People, Technology and Process to a business vision that needs to be strong enough to bridge gaps among departments and have them collaborate. However the benefits of undertaking such an effort can be substantial and can positively influence the performance of everyone in the organization.

### References

1. The Data Warehouse Lifecycle Toolkit: Expert Methods for Designing, Developing, and Deploying Data, Ralph Kimball, John Wiley & Sons, 1998.
2. Building the Data Warehouse, W. H. Inmon, John Wiley & Sons, 2002

### Author Profile

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