

# ERP and Business Intelligence

## **Dr. Sarwade W. K.**

Dean, Faculty of Management Science  
Former Head, Department of Commerce  
Director, Department of Management Science  
Dr. Babasaheb Ambedkar Marathwada University, Aurangabad  
Sarwade Chetan W.  
Research Fellow, BMCC College Pune  
India

### ***Introduction***

As we all are aware today's world is Competitive & fast developing. Every Businessman wants to truly maximize their return on investment in the less time and simple way. For that IT plays an important role in the growth of in this competitive world. Number of organization can perform maximum function with the help of latest technologies, which includes software. Software's solution that addresses all the needs of an enterprise with the process view of ever Business to meet their goals and integrate all the functions of the enterprise.

To run the Business more effective and efficient manner new technologies are now being introduced on a regular basis to make things much simpler and more modernized. One of the latest technologies is the introduce i.e **ERP. in Business**

For archive the success form complex to sample manner business intelligence & ERP system on top to do get it. Business intelligence is a broad category of applications, including technologies for reporting, analysis, and sharing of information that helps users make better business decisions.

For BI in ERP integration success, think rapid, agile project planning. There is a key advantage, easy to understand: When an ERP provider has done a lot of the work, as well as two more important applications ERM & MDM.

In this paper we are also disuses on the concept of data wear housing and how it is helpful to ERP and BI.

### ***What is BI?***

#### **Business Intelligence (BI)**

The term business intelligence can be defined as "The ability to apprehend the interrelationships of presented facts in such a way as to guide action towards a desired goal."

#### **BI as an umbrella term to describe "Concepts and methods to improve business Decision making by using fact-based support systems."**

BI is the way in which we store and use business information. Business Intelligence (BI) refers to skills, processes, technologies, applications and it encompasses the technologies, applications, and means for collecting, integrating, analyzing, business data. Using data that has been stored in a data warehouse, software applications are able to use this data to report past business information as well as predict future business information, including trends, threats, opportunities & patterns. Business Intelligence often aims to support better business decision-making. Thus a BI system can be called a decision support system (DSS). Though the term business intelligence is often used as a synonym for competitive intelligence, because they both support decision making, BI uses technologies, processes, and applications to analyze mostly internal, structured data and business processes while competitive intelligence, is done by gathering, analyzing and disseminating information with or without support from technology and applications, and focuses on all-source information and data (unstructured or structured), mostly external to, but also internal to a company, to support decision making

### ***What is ERP***

ERP is one of the latest technology/system which is now being implemented almost in every Organization. ERP stands for Enterprise Resource Planning. ERP is a way to integrate the data and processes of an organization into one single system. Usually ERP systems will have many components including hardware and software. In order to achieve integration, most ERP systems use a unified database to store data for various functions found throughout the organization.

Using the ERP and Business intelligence decision making becomes simpler.

### ***ERP System – One Umbrella***

Today's ERP systems can cover a wide range of functions and integrate them into one unified database. For instance, functions such as Human Resources, Supply Chain Management, Customer Relations Management, Financials, Manufacturing functions and Warehouse Management functions were all once stand alone software applications, usually housed with their own database and network, today, they can all fit under one umbrella - the ERP system.

### ***ERP Improves decision simplicity.***

Before ERP systems, each department of organization would most have their own computer system, data and database. Unfortunately, many of these systems would not be able to communicate with each another. But when they implement ERP system through which organization collect data from the entire department and stored it in to centralize database because the ERP system is a way to integrate the data and processes of an organization into one single system.

### ***ERP - A business intelligence application***

The term ERP used to refer about how large organizations of the industrial type planned to use organizational wide resources. Today ERP is used in almost any type of organization it doesn't matter whether it is large, small or what industry it falls in. How do we know what software system can be considered ERP? First, it must provide an organization with functionality for at least two systems or more.

The ideal configuration is then to have one ERP system for an entire organization, but organizations that are very large have been known to create an ERP system and then add external interfaces for other stand alone systems considered more powerful or able to fulfill the organization's needs in a better way.

### ***ERP and Business Intelligence***

The management of the corporate development starts with a simple inquiry of their partners about the present status of the company. Unless there is a specific answer to show the real status of the same, it will also finish there. Enterprise Performance Management (EPM) appeared with the purpose to help to find a primary answer to that question.

The KPIs are key performance indicators that will make real the proactive and predictive Business management. Besides, it will help the managers of any level to have direct and daily access for control.

Of course that EPM goes further the high level metrics, KPIs and control panels.

It is not only to concrete goals and strategies with the metrics, the analytics and the methodology are necessary to understand which of these metrics are important and how should they be measured. Therefore, the correct information will for sure reach the correct persons, in the correct time, and provoking by that a high positive impact.

### **Characteristics**

The majority of EPM systems executes in a very similar way. EPM solutions are built over the platform of Business Intelligence (BI), leading the world, which offers a sight on real time of the development of the Business, reports and alerts through the Web, besides the capacity to navigate till the detail in a transparent way.

This is helpful to handle and improve the whole performance of the organization, from the production plan to the executive offices.

### **Competitive Advantages**

EPM is the key for several processes. It is specially designed to focus and take advantages of real Business opportunities from any operating unit. In this way EPM optimizes the performance of the whole enterprise, whether it comes to factory workers or to high management levels.

This system has all the necessary tools to analyze and even predict trading (or operating) incomes cycles, development of supply chains, carefully detailed customer behavior and many other options from a single navigation interface.

Moreover, it is a great tool to line up and optimize the technologies as well as the Business processes, tactics and strategies, resources and objectives, Business units and corporate metric goals.

### **General Information through the Enterprise**

As it is known, EPM is not a new idea that came up recently. The different Businesses tend to increase the income and reduce the expenses to maximize the profitability. But nowadays, this task is becoming more and more difficult than ever. The infrastructure is more complex and the volume of data has risen considerably. In a competitive economy, the risks are higher than ever.

"You'd like to think that, but this only works in a homogenous environment"

That said, in terms of prepping systems and processes, ERP vendors can often offer a leg-up. In most cases, you can't get away from integration and prep work, Evelson said, even if you're using BI from your ERP vendor.

### **Preparing data for using BI with ERP**

Ideally, an organization will have a master data management (MDM) plan in place or, at the very least, some basic efforts to ensure consistent data definitions and quality. Still, belief in ERP as the be-all and end-all answer to data management persists, making some think they can skip this step if they have ERP in place.

"Transactional master data management -- the ERP vendors went through this phase -- was that the way you solve MDM is just deploying more and more on their technology, and we all know that that's not feasible," said Jeff Woods, managing vice president of ERP and SCM for Gartner. "The ERP vendors are attacking the MDM problem, but more from a transactional point of view."

People forget that data is problematic -- even in the best-run companies.

That's why more experts are touting the importance of MDM as part of BI initiatives, even in ERP environments.

### **How does MDM fit into using BI with ERP?**

While an ERP-focused organization may not need a full-blown MDM plan in place to squeeze value out of BI, you've got to remember the old phrase GIGO -- garbage in, garbage out.

"The MDM discussion has to begin with a business need to manage data, and where we advise clients to start on how to do this is, first, you have to create the business awareness of it, but then recognize that an MDM solution starts by tracing the sources and uses of data, as well as defining the governance around the data. It doesn't start with the technology solution," Woods said. "You've got to understand where the information is, where it flows, who uses it, before you can solve the MDM problem."

### **Building a foundation for BI and ERP integration**

"We have to understand the process today and what's the process you want to move to," For instance, "We can't install a system and magically fix master data management [MDM] problems -- we have to understand if there is dysfunctional use of data. Most of the time, there is no formalized governance, and this can be a problem when you're trying to manage data."

"If your primary use is reporting capability, you still have a lot of flexibility in terms of what kinds of BI you select, The ERP vendors are trying to bundle these solutions

together to make reporting and analytics information easier to access, and this is what we call integrated analytics."

"The value of integrated analytics is there, but it doesn't necessarily represent transformational business value to an enterprise," he said. "Integrated analytics makes it cheaper to access the analytics you want but doesn't really make the analytics any better or more useful. It's really an IT cost-savings you're getting with integrated analytics."

Another kind of more forward-thinking analytics for ERP-focused organizations is embedded analytics.

"But with embedded analytics within the business process, I might ask more sophisticated questions, say things like, 'Which customer is more profitable? Which customer is least likely to defect if I don't give them the inventory?'" he said.

### **How data warehouses work with BI in ERP environments**

BI systems are getting increasingly nimble in how they tap information, and ERP systems already store data somewhere, raising the question: Do BI implementations in ERP environments still need a separate data warehouse?

### **For BI in ERP integration success, think rapid, agile project planning**

Building a skyscraper requires a massive set of blueprints that detail every aspect of construction, which may span years. A good BI plan might seem similar, but reality has the tendency to change the basic rules of the game midway through the project. And that happens with skyscrapers, too -- most people just don't see how floors and plans are altered on the fly. Sure, there are ongoing inspections and budget tweaks, and people getting fired or moving to different jobs. Yet somehow, somehow, these amazing things get built.

So for project planning and architecting integration, Boris Evelson, principal analyst with Forrester Research, has some recommendations that might make for queasy stomachs for some IT pros.

"Traditional 'waterfall' project methodology does not work well for BI. Agile does," Evelson said. "So favor interactions over documentation. React versus plan. Think quick, tangible prototypes and deliverables versus long-strung-out milestones."

This means face-to-face business participation rather than working with IT liaisons; personal ad hoc interactions instead of highly defined processes; real-time prototypes versus long specification lists; reacting to change instead of planning in advance.

### **Concluding Remark:**

The Key to ERP is integration. Its main goal is to integrate data and processes from all areas of the organization and unify it, to provide ease of access and an efficient work flow. ERP Systems usually accomplish this through one single database that employs multiple software modules.

To make the choice of ERP - BI technology, experts I agree that it's key to look first at the scope and future of BI throughout the organization. Be aware of any tool's true abilities -- and outright limitations. Ironically enough, most limitations these days still come from bad data and poor governance.

"A secondary benefit is that companies used to implement ERP and then, toward the end of the implementation, realize that they needed reporting, which was a separate cycle. But now that it's embedded, reporting isn't an afterthought.

I think there is a need for some form and shape of data warehouse in virtually every environment, primarily because data is coming in from multiple places and that data needs to be commingled. Unless a business has all its data in a single system, you might not need a data warehouse, but I have yet to see a company that has all of data in a single system.

## **REFERENCES**

### ➤ **Books**

- Gueotal, Hal G., and Dianna L. Stone, (2005) "The Brave New World of eHR: Human Resources Management in the Digital Age". A Francisco: Jossey-Bass, pp 124-180.
- Jawadekar, W. S. (2003) "Management Information System." Tata Mc-Graw-Hill Publishing House, New Delhi. pp 34-56, 67-80.
- Kinnie, N.J., Arthurs, A.J. (1996), "Personnel specialists' advanced use of information technology evidence and explanations", Personnel Review, pp 56 -90.
- Kossek, E.E., Young, W., Gash, D.C., Nichol, V. (1994), "Waiting for innovation in the human resources department: Godot implements a human resource information system", Human Resource Management, pp 12-65, 122 - 145
- S.G.Sharma, N. D. Mathur & S. C. Bardia. (2005), "Globalization & Managerial Challenges." Pointer Publishers, 1st ed. pp 36-45.

- V S P Rao. (2002.)“Human Resource Management Text & Cases” Excel Book, 2nd ed. pp 36-94.

➤ **Journal’s**

- Beckers, A.M., Bsai, M.Z (2002), "A DSS classification model for research in human resource information systems", Information Systems Management, Vol. 19 No.3, pp.41-50.
- Hannon, J., Jelf, G., Brandes, D. (1996), "Human resource information systems: operational issues and strategic considerations in a global environment", International Journal of Human Resource Management, Vol. 7 No.1, pp.245-69.
- Tansley, C., Watson, T. (2000), "Strategic exchange in the development of human resource information systems (HRIS)", New Technology, Work and Employment, Vol. 15 No.2, pp.108-22.

➤ **Web Sites**

- [www.business.com/directory/human\\_resources/outsourcing/hrms\\_hris.com](http://www.business.com/directory/human_resources/outsourcing/hrms_hris.com)
- [www.scholar.google.com](http://www.scholar.google.com)