



# ISRC Notes – February 2000

## Realizing Value from Investments in ERP

Based on a Presentation by Dr. Jeanne Ross

*The first challenge of an Enterprise Resource Planning application is getting it installed. That is the easy part according to Dr. Jeanne Ross of the Center for Information Systems Research at the MIT Sloan School of Management, our guest speaker for the February ISRC seminar. The difficult part is living up to management expectations and demonstrating value in a short period of time. Jeanne has researched a number of large (\$1 billion and over) companies that have implemented SAP, Baan, PeopleSoft, or Oracle systems over the last several years. The experience these companies have had was the basis of her presentation.*

### **Introduction and Overview**

According to Jeanne Ross the biggest difference between implementing an ERP system and any other implementation is the degree of organizational pain. The IT organization is highly visible in these efforts as a result of the involvement of top management and the broad-based impact of the success or failure of the implementation. ERP applications are a case of IT driving change in the organization and whenever change occurs, overcoming resistance becomes the key to success.

### **Why ERP?**

Management sees ERP as the solution to several problems. They see the IT infrastructure in a global environment as providing:

- Anyone, anytime, anywhere having access to all the data they need
- Electronic linkages to the web
- A seamless integration of all processes
- A foundation for growth
- Flexibility to enable organizational change

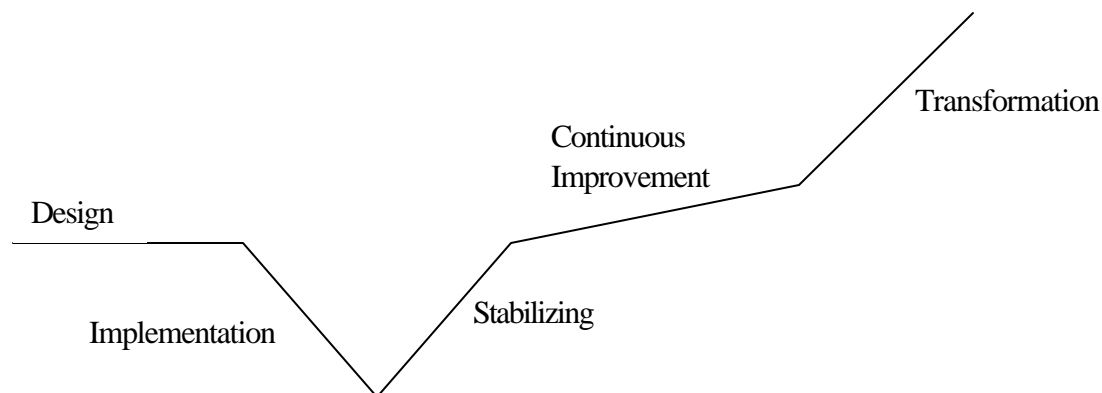
Management also anticipates certain performance outcomes such as cost reduction, improved accuracy of data and actions, reduced cycle times, and improved customer satisfaction. The problems start with underestimating the effort required to get to that point. It is important for management to realize that the benefits evolve slowly over time and that management could actually negate the beneficial effects by diverting resources too quickly.

### **Stages of ERP Implementation**

After reviewing the experiences of a number of large companies installing ERP systems, Dr. Ross developed a five-stage journey through ERP implementation which she labeled the Approach, the Dive, Resurfacing, Swimming, and Jet-skiing.

**The Approach** – This is the stage of making the design decisions. Especially in ERP systems, companies have found that the organization has to adapt to the packaged system rather than changing the software to meet current company processes.

**The Dive** – The point of implementation when the inevitable problems arise. Technology problems, bad data, inadequate understandings; all the typical occurrences but on a grander scale.



**Resurfacing** – Typically four to twelve months after implementation, new roles and workflows have been learned and the organization has restabilized.

**Swimming** – Finally some of the expected benefits are starting to occur. Systems are continually improving as new capabilities are added and processes start to optimize.

**Jet-skiing** – Organizational boundaries have been changed, the organization has developed agility and ability to rapidly change to a changing environment, and management decision making processes have been redefined. A business transformation has occurred.

Businesses have found that implementing an ERP is a commitment to a new way of life. The old style of doing things is gone. There is no turning back.

### **The Key to Successful ERP Implementation**

Change management is an important part of any system implementation; ERPs just accentuate the problems. ERPs induce changes as follows:

- Package implementation constrains the process design. Users can no longer get everything they want.
- Process standardization is required at the lower levels in order to empower the higher levels. Lower level employees feel that their creativities are stifled.
- Process integration occurs especially in the global setting, which limits independence.

Recognizing the significance of changes and alleviating their impact is the key to success. The ultimate outcome of the successful ERP reflects increased teamwork, stronger data discipline, greater software vendor dependency, and role changes throughout the IT and business organizations.

## **Implementation Outcomes**

An IT infrastructure which includes ERP is a situation wherein technology is driving organizational change. It is an environment of process-oriented structures, new human resources policies, new IT competencies, and changed IT governance.

- 1 Process oriented structures
  - A Distributed decision-making
  - B Process leaders
  - C Processes as competencies
  - D Evolving metrics for measuring efficiency
- 2 New HR policies
  - A More demanding recruiting practices
  - B Compensation that focuses attention on firm performance
  - C More formalized ongoing training
- 3 New IT competencies
  - A Architecture design
  - B Program management
  - C Problem solving (sourcing)
  - D Process analysis
  - E Technology scanning
- 4 Changed IT governance
  - A Architecture planning
  - B Continued IT funding
  - C IT priority setting

## **Summary**

Implementing an ERP system is not merely a new set of legacy systems or a new infrastructure; it is new business processes requiring a new culture according to Jeanne Ross' research. The value is realized only after post-implementation processes have stabilized and true business transformation has occurred.

## **Additional Information**

<http://disc.cba.uh.edu/isrc.html/topic.htm>

ISRC Topic Brief on Realizing Value from Investments in ERP

<http://web.mit.edu/cisr/www/html/ross.html#Top>

Dr. Jeanne Ross homepage with links to her research