Chapter 8

The Next Wave in ERP Implementation

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Although the benefits of ERP are obvious, the risks and costs associated with it are very high. Some problems in implementing ERP system are documented, but the real challenge comes from the Internet and E-business. ERP is an enterprise wide system whose purpose is to achieve internal efficiency, while E-business cuts across different enterprises and extends the individual value chain into an Internet based, dynamic process aimed at maximizing external efficiency. To survive the E-business challenge, the arguably single, and also the best, solution for ERP systems is to integrate with E-business applications, which we call ERP II. By properly resolving the issues of integration via newly emerged technologies, and embracing the extended function of mobile-commerce, ERP II will continue to flourish in the next century.

BACKGROUND OF ERP

Enterprise Resource Planning (ERP) is a set of applications that provide automated support in traditional business processes such as inventory control, material requirements planning and order processing. The essence of ERP is “integrating the resource of the entire ‘enterprise’ from an information standpoint.” (Jacobs et al. 2000) Integration means more than “linking”, “combining”, or simply “putting together”. The duplication of information is eliminated, time is saved and operational efficiency is improved. Integration in an ERP system is not limited to information; it may also involve business re-organization.
The reader may wonder what the difference between a common central database and an ERP system is. Jacobs et al. (2000) answered the question in a very simple way. In a central database, information goes from different functional areas to the central database where they can be shared, while in an ERP system, functions are linked one to another and to the database (See Figure 1). This means that a complete ERP package cuts across different business functions such as Manufacturing, Finance, Accounting, Marketing, etc. The essences of ERP are information sharing (which is the same as a common central database) and process integration (the unique character of ERP systems). Only when based on these two ideas can ERP achieve real resource optimization and thus by extension, cost reduction and revenue enhancement.

**PROBLEMS WITH CURRENT ERP SYSTEMS**

While ERP benefits are somewhat obvious, reaping those benefits is not easy. Several high profile ERP project failures have made companies more prudent in making the decision to implement.

One obstacle is ERP’s high cost; the cost of an ERP suite ranges from $2 million to $130 million (Norris et al. 2000). This is enough to prohibit many companies from entering the door. Nevertheless, this only accounts for a fraction of the total cost of implementing an ERP system. Inappropriately choosing an unbearably expensive ERP can lead to complete failure. Trying to be everything to everyone has made ERP systems such as SAP AG’s R/3 notoriously complicated, and installing the software often forces users to change their internal processes.

Implementing a big ERP package will be about half technology issues, and half organizational and human issues. Documented factors that lead to failure are lack of top management commitment, lack of project marketing and end user training, poorly defined business processes, inexperienced project managers, rushed
Big-Bang ERP Implementation at a Global Company


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