Chapter 8.4

The Future of ERP and Enterprise Resource Management Systems

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ABSTRACT

Enterprise resource planning (ERP) systems integrate into one single system the control and accounting of all the enterprise resources. Just like the previous systems (material requirements planning and accounting information systems among others) became ERPs, it is highly probable that ERPs will keep evolving towards a different and more comprehensive system. Logically, this evolution will be driven by the unsatisfied expectations of the current markets. One of these expectations is to lower the emphasis on the mid- and long-term planning functionality in favor of some kind of short-term, more dynamic planning functionality. In this sense, the chapter glimpses at a system that could be called ERM, where the "M" stands for management instead of the "P" for planning. The chapter also discusses the potential effects of the Open Source Initiative on ERPs. Other outstanding expectations examined are: (1) lower cost and duration of the implementation process, (2) less dependency on external consultants for the implementation, and (3) improved and standardized interaction functionality—or middleware—between different ERPs.

INTRODUCTION

Enterprise resource planning (ERP) systems integrated in one single system the control and accounting of all the enterprise resources. However the markets seemed to expect much more out of them, and many organizations, especially small and medium-sized enterprises (SMEs), cannot afford the high costs and duration of the implementation process. They also expect a more

dynamic and day-to-day management functionality instead of the rigid mid- and long-term planning functionality that characterizes the current wave of ERPs. Even the otherwise happy users are not satisfied with the way that ERPs have delivered in regards to two big promises: the transfer of best practices and the inter-organizational—suppliers, customers, subsidiaries, partners, and regulators—connectivity. The former resembles a long and traumatic reengineering process, while the latter still has the same problems that organizations used to have between departments before the advent of ERPs.

ERP developers are starting to offer more SME-oriented products. However, big software houses such as Microsoft, IBM, SAP, and Oracle do not show any clear trend towards the development of a "next-generation" ERP. No one is talking about a global standard for ERP comparable to, say, the Microsoft Office Suite. It is not even clear if there is an intrinsic impediment for the standardization of ERPs or at least of the middleware aimed to make different ERPs compatible and really serve as a vehicle to transfer the best practices. Some consulting firms see the Open Source Initiative (OSI) as a way of lowering the total costs by eliminating the licensing cost, but none of the attempts have produced an open source ERP propagation model like that of Linux.

The first and second sections of this chapter identify one of the needs the future ERP will have to satisfy in order to reach the global SME market and the global "extended organization": the need to emphasize managing and not planning. This includes the systematization of short-term management and thus proposes a system that responds to the name of enterprise resource management (ERM), emphasizing management instead of planning. The third section identifies a need that ERMs themselves would have to satisfy: a resource-centered data structure that would structurally strengthen and support the resource-oriented functionality already present in ERPs.

The next sections address the possible role of current large software houses—like Microsoft—in the standardization of ERPs, the possible incidence of the Open Source Initiative in that respect, and the possibilities of a substantial reduction of the consulting expenses in ERP implementations. Finally, the concept of the global ERP is revised in terms of the global ERM.

ERP FOR SMES: THE NEED FOR AN EMPHASIS ON MANAGING, NOT PLANNING

Most ERPs are designed and developed with the richest companies in mind—since those were the first to be able to pay the elevated prices. Today, they are developed mostly for the large and middle-size companies of the developed world, which are its primary target market. Thus, ERPs still have two critical characteristics:

1. Their prices are so high and their implementation times so long that only large and some medium-sized companies can handle them.
2. They emphasize a critical part of management for those organizations: planning. Moreover, an additional unconscious emphasis is given to planning because it is embedded in the name that marketing has given to these applications: enterprise resource planning systems.

Most SMEs cannot afford such large investments in time and financial resources (see a somehow "desperate" alternative in Olsen & Saetre, 2007) and the restrictive planning functionality does not allow them to timely react to the unexpected events that they tend to face in their day-to-day operations. Moreover, it is common that for reasons out of their control (that will be discussed later in this chapter), SMEs cannot develop medium-term plans even if they wanted to.

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