



Chapter I

Setting the Scene — Defining and Understanding ERP Systems

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ABSTRACT

This introduction chapter briefly retraces the emergence of the concept of enterprise-wide system and provides a complete overview of the definitions that have been proposed for Enterprise Resource Planning (ERP) systems. It then presents the commonly accepted rationale for ERP including the much publicised benefits that organisations can expect from them. Following this, an overview of the ERP market and, in particular, of its leading player SAP is proposed, leading to a conclusion that sets the scene for the other chapters in this book.

INTRODUCTION

In 1996, FoxMeyer Drug, a \$5 billion drug distributor, declared bankruptcy after failing to implement an ERP system over a three-year period.

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FoxMeyer sued SAP, the world's leading supplier of ERP software, for \$500 million, stating that its system was a "*significant factor*" that brought about the company's financial ruin (this despite the fact that FoxMeyer only spent \$30 million dollars on the ERP project) (Davenport, 1998). Mobil Europe invested many millions of dollars in an ERP system only to abandon it as a result of objections by its merging partner (Davenport, 1998). Unisource Worldwide Inc. wrote off \$168 million in costs when it abandoned its pan-American implementation of SAP software (Bingi et al., 1999). Dell Computers, after months of delay and cost overruns, abandoned their ERP project, because they found that the new system was not appropriate for its decentralized management model (Stefanou, 2000). Hershey Foods Corporation, Whirlpool, Dow Chemical, Boeing, Apple Computers, and Applied Materials all experienced disasters of varying proportions as a result of ERP implementation projects.

Yet, the ERP software market is one of the fastest-growing markets in the software industry, with long-term growth rates of 36% to 40%, with some estimates putting the eventual size of the market by the year 2010 at \$1 trillion (Bingi et al., 1999). Since these estimates have been put forward, the ERP market has slowed, but the overall growth of the enterprise-wide application market is still strong, thanks to a number of additional segments, such as Customer Relationship Management (CRM) and Supply Chain Management (SCM).

THE EMERGENCE OF ENTERPRISE RESOURCE PLANNING

The historical origin of ERP is in inventory management and control software packages that dictated system design during the 1960s (Seo, 1999; Kalakota & Robinson, 2001). In the 1970s, we saw the emergence of Material Requirements Planning (MRP) and Distribution Resource Planning (DRP), which focused on automating all aspects of production master scheduling and centralized inventory planning, respectively (Seo, 1999; Kalakota & Robinson, 2001). During the 1980s, the misnamed MRPII (Manufacturing Resource Planning) systems emerged to extend MRP's traditional focus on production processes into other business functions, including order processing, manufacturing, and distribution (Seo, 1999; Kalakota & Robinson, 2001). In the early 1990s, MRPII was further extended to cover areas of engineering, finance, human resources, project management, etc. (Seo, 1999). MRPII is a misno-

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