Managing Enterprise Resource Planning Adoption and Business Processes

Managing Enterprise Resource Planning Adoption and Business Processes:

A Holistic Approach

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Dedicated to the memory of my late parents,
Shing S. and Chung-Sin Law

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PREFACE

Enterprise resource planning (ERP) systems are the lifeblood of modern business enterprises. Unfortunately, this important phenomenon is also associated with many negative stories. Unsatisfactory system adoption outcomes may be attributable to a number of mistakes such as unclear adoption objectives, poor support from management and users, excessive customization, poorly managed business process changes, and a misplaced focus primarily on implementation with the requirements of on-going maintenance and support understated or neglected.

Besides, some of these organizations placed their focus primarily on the technical aspects of ERP adoption but not on business objectives and requirements. Generally speaking, ERP adoption should be treated as a business project. It is necessary to stress the very close relationship between ERP systems, and business and organizational issues. An ERP cannot be successfully deployed in isolation of such requirements and constraints while the major challenge of ERP adoption lies in the difficulty of integrating and satisfying the highly diverse requirements originating from the multiple facets of an organization.

In addition to technical requirements associated with setting up and operating an ERP system, it must also be planned and deployed with due considerations given to such issues as IT governance and strategic alignment, business practices and process improvement, change management, ERP customization, on-going system maintenance, human resources development and training. Moreover, the long lifespan of an ERP installation makes sound lifecycle management particularly important. Thus, the holistic full lifecycle approach espoused by this book emphasizes a broader and comprehensive view that encompasses the technical, business and organizational factors of an ERP project. This approach also urges ERP adopting organizations to treat post-implementation requirements as important factors that must be carefully considered in ERP planning and strategy formulation. System design and implementation decisions must be made appropriately to result in a stable, and maintainable system for the long run.

This book intends to address ERP adoption and management together with many of the aforesaid business and organizational issues.

Chapter 1 presents the basic concepts about ERP systems, information about vendors, and mistakes made by ERP projects. It also discusses the reasons that incentivize me to write this book.

Chapter 2 discusses the strategic intent, and critical success factors of ERP adoption.

In Chapter 3, the Full Lifecycle ERP Adoption Reference (FLEAR) model is proposed and illustrated in simple plain English. The FLEAR model highlights seven perspectives to guide an organization to understand the requirements and constraints pertaining to ERP adoption. Strategic considerations for ERP adoption are also discussed in this chapter.

Chapter 4 discusses organizational issues which include strategic alignment, organizational culture, IT governance, IT infrastructure, and the relationship between ERP deployment and the overall information management environment. This chapter also discusses the structure, roles and responsibilities of a typical project organization, and stakeholder and communications management issues.

In Chapter 5, human resources management issues, particularly those pertaining to the development and retention of critical skills, consultant management, knowledge transfer and training, are discussed.

Chapter 6 and Chapter 7 address the important issues of managing changes in ERP adopting organizations. Chapter 6 focuses on high level change management theories and principles while Chapter 7 discusses the levels and issues of IT and ERP-enabled process changes. Guidelines for change management and process changes are presented respectively in these two chapters. The order fulfillment process of Tradeco is also analyzed as an example of business process changes in Chapter 7.

Chapter 8 discusses the maintenance and support activities, and other post-implementation issues of the operations phase of the ERP lifecycle.

Two in-depth case studies are also included in this book for the readers. Chapter 9 presents the Tradeco case, and Chapter 10 the Controlco case. Both are the Asia Pacific operations of American multi-national conglomerates. In addition, the ERP experience of these two international firms is referenced to support our discussion of various important ERP and management issues throughout this book.

The case studies and many topics presented in this book are selected with the needs and interests of several categories of readers in mind (such as MIS practitioners, business professionals, and advanced university students). I hope readers would find this book interesting and useful.

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I was motivated to write this book by many people, including my colleagues, clients, and students over the years as a management practitioner, and later as an academic. The completion of this book project was delayed until recently because of many other priorities in my hectic life that competed for time allocation.

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I was lucky to have benefited from the knowledge of many scholars throughout the process of learning to become a management researcher. In this respect, I would like to express my gratitude to Prof. Ngai, Prof. Peter P. M. Yuen, and Prof. Margaret Shaffer who taught me quantitative and qualitative research methodologies while I was a student of the Doctor of Business Administration Programme at Hong Kong Polytechnic University.

Several other organizations have also contributed to the completion of this book, resolving many hurdles in the publication process. I sincerely

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CHAPTER ONE

THE ERP PHENOMENON

Abstract

This chapter begins with an introduction to the concepts of enterprise resource planning (ERP) systems. It then shares with readers basic information about top-ranking ERP vendors and their products in the world. As the author points out, ERP adoption is an important global phenomenon in recent decades, but unfortunately, many ERP projects across the world have failed. In this chapter, he explains the difference between the hype and reality about ERP, and highlights the mistakes made in ERP projects in advanced and developing countries.

One of the misconceptions and malpractices commonly found in many ERP projects is a misplaced focus that stresses implementation, and downplays the importance of post-implementation requirements of the ERP lifecycle. In concluding the chapter, he explains why he writes this book. In order to avoid, or at least mitigate, the problems reported by so many ERP-adopting organizations, he emphasizes a full lifecycle approach by which an organization takes a broader view of the requirements of the whole ERP lifecycle when it plans for an ERP project. By this approach, organizations do not limit its focus to implementation, but should also consider post-implementation requirements (such as those of on-going maintenance and support) when defining the overall strategy for the ERP project. A balanced set of resources and competence supporting this strategy must be recruited, developed, and retained to get the organizations ERP-ready ahead of time for not only the implementation phase but also the remainder of the ERP lifecycle.

Fundamental concepts of ERP

Enterprise resource planning (ERP) systems refer to suites of application systems comprising multiple integrated software modules that help organizations to manage their resources (Teltumbde 2000). The predecessors of ERP first appeared in the 1960s as material requirements planning (MRP) and, later, evolved into a more advanced system called manufacturing resources planning (MRP II). MRP is a system that is used in planning and scheduling production. It translates the requirements of finished goods into those of low-level materials (i.e. raw materials, component parts, and subassemblies) for various time fences. MRP II extends the functionality of MRP to include the functionality of capacity requirement planning and those for other functional areas such as finance and marketing. Today, ERP systems are generally more sophisticated, and more effective in supporting multiple functional and business units, including but not limited to, accounting and finance, sales and operations planning, order management, purchasing, supply chain management, manufacturing, human resources management, and customer relationship management.

ERP enables seamless integration of business processes (Mabert, Soni, and Venkataramanan 2003), and information sharing (Davenport 1998) across departmental boundaries within a company, and even with its business partners. The capability of information sharing along a company's value chain is vital to effective decision-making and operating efficiency. In general, ERP packages provide built-in workflow engines to enable workflow automation. With these engines, companies can define business rules and approval matrices so that information, messages, and documents can be routed automatically to operational users for actions to be taken for business transactions, and to managers and directors for review and approval.

ERP is the lifeblood of daily business operations for many companies. However, its importance is not limited to online transaction processing (OLTP). Because of its integrated database, it is a facilitator or an enabler for organization-wide knowledge management, strategic planning, and decisions at levels well above the transaction processing level (Bendoly, Soni, and Venkataramanan 2004). ERP vendors enable online analytical processing (OLAP) by supplying clients OLAP tools, and business intelligence modules.

Potential impacts of ERP systems

Accompanying the ERP is a remarkable phenomenon of empowerment, occurring at the various levels of the organization. It may have profound impacts on how work is to be accomplished, and thus consequently on the effectiveness and efficiency of the whole enterprise. We may illustrate the potential impacts of an ERP by taking a glance at the tasks performed by a sales assistant or customer service staff before and after ERP implementation.

Without an ERP system, he captures sales orders using either paper-based forms, or a standalone sales order management system. The sales orders are then routed to the various departments that are involved in the order fulfilment process. The information pertaining to the sales orders is later entered into the standalone systems of the departments involved. The whole process is inefficient and infested with several problems, namely, duplication of efforts, potentially more data entry errors, and delay in information processing. As information concerning sales orders and order fulfilment-related activities is scattered over more than one unintegrated functional system, information sharing among various departments is limited. In many circumstances, he lacks the ability to respond promptly to customers' queries about order status. Generally speaking, workers involved in each stage of the order lifecycle are blind-folded, and straitjacketed by the lack of information about what has been completed by colleagues in other departments.

An ERP addresses the abovementioned problems by bringing together all those involved in the value chain through integrating the application modules used by various functional and business units. For instance, information integration enables sharing of information along the order fulfilment process. It provides those involved a consistent picture of the sales order at every point of the order lifecycle. With the ERP, the sales assistant or customer service staff may be granted access to the relevant information about customer credit status, inventory level, and warehouse and shipping schedules, whenever appropriate, to support his order-related decisions. Such information can be displayed at the screen of the workstation within seconds as requested to facilitate his work activities. With access to real-time information, he is able not only to inform the customer of the estimated order delivery date but also to remind procurement staff of the requirements of the order.

With the ERP, the same worker is empowered with information to do a lot more in a more effective and efficient manner. In short, the ERP helps the company realize the benefits of eliminating data entry errors, reducing

order fulfilment cost and cycle time, enabling speedy delivery of goods and services, and raising customer satisfaction levels. Generally speaking, ERP deployment is not solely a game of system implementation and process automation. Its potential benefits can be maximized only if those involved are willing and committed to take advantage of system capabilities to innovate and improve the business practices and processes of the company on an ongoing basis.

Given the wide range of features available from ERP products, many executives and management information systems (MIS) consultants believe that ERP systems can deliver strategic competitive advantages. In fact, ERP systems have demonstrated to result in significant reduction in operational costs, and improvements in efficiency, productivity, and service quality if they are implemented properly. ERP systems can contribute not only to internal, cross-functional, integration, but also supply chain integration which will be discussed further in the following paragraphs.

Therefore, it is not surprising that many companies, especially large enterprises, have already adopted ERP systems (Van Everdingen, Van Hillegersberg, and Waarts 2000), while many small and medium-sized enterprises (SMEs) are also eager to embark on the journey of ERP implementation. The recent years have witnessed an upward trend for the number of SMEs adopting ERP systems. Many enterprises in developing countries such as Brazil, India and China are also actively pursuing their ERP dreams.

Recent trends of ERP

ERP II or value chain resource planning

Since the last decades, business enterprises are increasingly aware of the value of collaboration between business partners in the value chain or network. Linkages to business partners' systems and B2B e-commerce sites are implemented first using electronic data interchange (EDI), and later using web-based technologies. ERP consultants and scholars have also proposed extensions to the concept of ERP for the extended enterprises. Gartner Group called its new conceptual model ERP II (Bond, Genovese, Miklovic, Wood, Zrinsek, and Rayner 2000). ERP II emphasizes inter-enterprise collaboration while a pure ERP system has its focus on the internal requirements of an enterprise.

Bendoly and colleagues described their conceptual model as value chain resource planning (VCRP) system (Bendoly, Soni, and Venkataramanan

2004). At the centre of the model is the ERP domain of the firm which is connected to other internal applications such as data warehouse. The ERP domain has an intra-firm focus, managing the operations and relationships of the internal units of the firm. Added to this internal ERP domain are supplier and customer relationship (SRM, and CRM) modules and connections to e-commerce systems that make up the value chain resource planning domain. The VCRP has an inter-firm focus, meaning that the value proposition and business strategy of this model have shifted from an emphasis on the firm to the collaborations across the value chain or network.

Implementing and managing an inter-firm ERP II or VCRP system will doubtlessly be more complicated and challenging than a pure ERP because each of the individual firms participating in a value chain may have their own business objectives, requirements, and constraints, some of which may be incompatible with those of their business partners. ERP vendors have noted such concepts, and recognized the ever growing importance of collaborative commerce (or c-commerce). They have responded by producing more system features or modules that cater to the requirements of managing customers and business partners such as the customer relationship management (CRM) and supplier relationship management (SRM) modules, or by acquiring such application modules through merging with or taking over other pure-play CRM and SRM software producers. ERP II suites also began to appear in the market recently. These enhanced software products emphasize a new design oriented towards inter-firm collaboration. Among them is the ERP II suite produced by Data Systems Consulting Co. Ltd. of Taiwan, and marketed in many Asian locations under the subsidiaries of Digiwin Software. It would surely be interesting to hear clients' assessment about this product and the like.

Although the VCRP and ERP II are idealistic models that are very complicated and challenging for ERP vendors to fulfil all of the proposed functionality requirements (Bendoly, et al. 2004), vendors have at least demonstrated the intention to move towards such an inter-firm collaborative model. In recent years, many ERP vendors (such as SAP AG) have added to their portfolios of ERP solutions application modules that support inter-firm interactions with customers and suppliers. Such modules enable and facilitate collaborative planning, procurement, replenishment, logistics management, and product design.

Some enterprises are also pursuing the dream of c-commerce by themselves, taking the "best-of-breed" approach. They have added to their core ERP system third-party supply chain management (SCM) modules such as those offered by i2 Technologies and Manugistics (both of which

are now part of JDA Software Group, Inc.) to support collaborative activities with business partners. Such attempts successfully enable, to some degree, the benefits of collaborative planning, forecasting, and replenishment (CPFR) and vendor managed inventory (VMI) (JDA Software Group, Inc. 2010). Bendoly, and colleagues discussed the efforts of several large enterprises in building their own versions of VCRP (Bendoly, et al. 2004). For instance, Georgia-Pacific connected its core SAP R/3 to a supply chain management system developed by RedPrairie to manage carriers, and a collaborative logistics system offered by Nistevo to enhance fleet-sharing capabilities with other companies. Georgia-Pacific also linked its SAP ERP to a B2B e-commerce exchange using software offered by webMethods, a software firm taken over later by Software AG in 2007.

Some companies facilitate CPFR, for instance, by granting data warehouse access to business partners. An example offered by Bendoly, et al. (2004) was Wal-mart which did so using NCR's Teradata software product. In fact, collaborative efforts between suppliers and retailers began much earlier. It was pioneered in the late 1980's by Proctor & Gamble with Wal-Mart and K-Mart on continuous replenishment. The value of such a development was so well received by Wal-Mart and other companies that it was later expanded into a full-fledged CPFR functionality (Koch 2002).

When c-commerce is becoming increasingly important nowadays, and business strategies are shifting more and more from originally an intra-firm focus towards an inter-firm focus, we should anticipate more innovations in ERP or ERP II software products. However, in my opinion, the advent of c-commerce and VCRP or ERP II is not by any means heralding the death of the ERP as suggested by Bond and colleagues (Bond, et al. 2000). Even in the perfect scenario that all partners share the same objectives of unselfishly maximizing the total profitability of their value network, every participating firm in the network would still inevitably have its own profit and loss requirements, assets, and other resources to manage. Simply put, you need to keep your own house in order before being qualified for partnership. In fact, realizing the idealistic vision of VCRP depends on two requirements, namely, those at the technological, and relationship management levels. Firstly, partners need to agree on the common technological and data standards, and ERP solutions to be adopted. While there exist so many brands of ERP products in the market which may complicate the planning, implementation and management of inter-firm ERP solutions, data sharing across enterprises has become simpler with the advent of XML-based solutions. This is a

consolation to VCRP or inter-organization system (IOS) advocates. Secondly, adoption of VCRP and data sharing is not possible unless there exists an acceptable degree of trust among business partners. Thus, the challenges for VCRP are not only technological, but also relationship management issues.

Because of the above-mentioned reasons, the traditional core functionality of ERP and look-alive software will continue to exist, perhaps in more sophisticated forms and possibly in different system architectures while the collaborative features of such systems will be accorded increasing importance in future ERP releases.

The future is uncertain but indisputably interesting. What is certain at this moment is the increasing demand for project management skills for the deployment of more sophisticated and complicated enterprise or inter-enterprise systems.

SaaS ERP and freeware

In terms of the evolution of product features, many ERP products nowadays have embraced the service-oriented architecture (SOA) and are enabled to support web-based technologies, RFID, cloud computing, and the Software as a Service (SaaS) model. Social media look and feel is usually added to user interfaces of recent ERP products, and some ERP products support access by mobile devices (such as smart phones and tablets).

Traditionally, when we talk about ERP, we are referring to on-premise ERP systems which are implemented for and under the control of individual firms. In recent years, cloud and SaaS-based ERP products began to emerge in the market. SaaS originally refers to software vendors' or application service providers' business models for providing (selling) software services to subscribing clients, while cloud-computing is a term that describes the distributed computing architecture of IT systems. However, both terms are often used together by the trade press nowadays for ERP products, and their original meaning is blurred.

SaaS-based ERP products are often set up and managed as multi-tenant systems by the ERP vendors (such as Epicor and UNIT4) or application service providers (ASP), and shared by multiple clients who subscribe to such services. This kind of ERP products and subscription model would allegedly save client firms from the intimidatingly high initial costs of software licenses and implementation, and the trouble of on-going management of on-premise ERP systems. An advantage of cloud-based ERP systems is related to the scalability and ease of deployment of their

functionality. Potentially, such characteristics may contribute to the adoption of a multi-tier ERP architecture by some enterprises in which less complex cloud-based ERP modules are added to co-operate with the main centralized on-premise ERP (Shinde 2015).

In adopting an on-premise ERP system, a firm not only has to incur the initial investment for software licenses and implementation, but also has to worry about the acquisition and retention of ERP implementation and system administration expertise. By contrast, a small enterprise could gain access to SaaS-based ERP services as long as it has network connectivity to the ASP's system infrastructure. The rest would be taken care of by the ASP. Thus it is a good news for small and medium-sized enterprises (SMEs) which usually do not have a sizable IT department. However, it is worthwhile to bear in mind the reminders from some ERP experts, such as Eric Kimberling of Panorama Consulting. For the shorter term, it is less expensive to subscribe to a SaaS-based system, which, unfortunately, may be more costly than on-premise systems in the long term. SaaS-based ERP systems require a recurring monthly or annual subscription fee, while on-premise systems are estimated to have a break-even point of approximately five years. After this point, an enterprise would have to pay for primarily maintenance and support (M&S) expenses for its on-premise ERP-installation (unless new modules are to be added). Thus, the use of SaaS-based ERP may be more costly than on-premise systems over the longer term (Teach 2016).

In addition, there are other concerns about cloud and SaaS-based systems. Many larger enterprises are still looking at multi-tenant cloud and SaaS-based ERP environments with suspicion (unless the cloud-based systems are implemented in company-controlled private clouds which are used exclusively by themselves). Their concerns are primarily about data security, and the degree of flexibility in configuring the ERP instances to support their more complicated business processes (Wailgum 2008a; Shinde 2015; Webster 2016). First, they naturally have concerns over placing confidential and proprietary business data in a shared environment that is not under their own control. Second, traditional on-premise ERP systems provide a large number of parameters for client firms to configure the ERP instances to support their own business practices and processes. At present, many cloud-based ERP products are still weaker in terms of functionality breadth and configurability than on-premise ERP products (Webster 2016). How much of such flexibility would be available to a firm in a multi-tenant cloud and SaaS-based ERP environment? This is surely a valid question for ERP-adopting firms. An on-premise ERP permits a firm the flexibility to select its own combination of application modules, and if

necessary, to integrate legacy or other applications with the ERP instance. Thus, the advantages of SaaS-based (multi-tenant) ERP for SMEs discussed above may possibly be perceived as constraints by some larger enterprises. That explains why on-premise systems will continue to account for a significant share of the ERP market though cloud and SaaS-based ERP products are gaining in popularity (Columbus 2013). According to Panorama Consulting, fifty-six percent of ERP systems adopted are on-premise systems, thirty-three percent are implemented as SaaS-based systems, and eleven percentage are cloud-based ERP hosted and managed off-site (Teach 2016).

Nevertheless, the upward trend for cloud and SaaS-based ERP systems must be noted. Some consultants predict that the concerns about data security, functionality breadth, and configurability may eventually become less of an issue, and cloud and SaaS-based ERP would be increasingly accepted in the market (Teach 2016).

Recent years have also seen the advent of open-source ERP products such as OpenERP, Compiere, WebERP and others. Such software products are free of charge. Unlike proprietary commercial ERP products (such as Oracle and SAP), firms adopting open source ERP have access to the source codes so that they can customize (or modify) the modules directly, instead of only adding bolt-on functionality, to fit their specific functional and process requirements. These are the advantages offered by open-source ERP software. Firms, in particular SMEs, may find it appealing considering the cost savings.

However, unlike commercial products which are supported by their vendors and consulting partners to guarantee the quality of software and on-going enhancement, firms adopting open-source ERP are on their own. They will have to be fully responsible for developing the needed expertise, the quality of the software, and on-going maintenance and support of the system implemented. That is the price to pay in exchange for the benefits of using a free software and the flexibility of customizing the source codes. Firms which intend to take this route of the ERP journey can also contact independent consultancies for help. Some consulting firms offer open-source ERP implementation and support services.

The ERP market and products

There are over 100 proprietary commercial ERP products in the market that target customers in various business sectors (Teach 2016). Table 1-1 lists 15 popular ERP vendors and their profile information. Oracle Corporation and SAP AG are by far the largest vendors in the global ERP

market, and they are often called the "tier-1" vendors (Columbus 2013). Other vendors trailed far behind these two giants in revenue and market share. Readers who are interested in pursuing further information about these companies can browse their websites, using the URLs provided by Table 1-1.

The global ERP market in the recent decade can be characterized as anything but "dull". It was full of dramatic mergers and takeovers. The global ERP market was traditionally dominated by a few big players, and it is even more so today after rounds of consolidation in the last decade. In 2003, J. D. Edwards was purchased by Peoplesoft, Inc, which was taken over by Oracle Corp. in 2005. In fact, Oracle has also bought Siebel (a pure-play CRM producer) in 2005, and Primavera Software, Inc. (a project portfolio management system producer) in 2008. In the same period of time, Baan, an ERP producer founded in the Netherlands in 1978, was acquired by SSA Global Technologies in 2003. In 2006, SSA Global Technologies was bought by Atlanta, Georgia-based Infor Global Solutions. In the same year, Infor took over MAPICS, and Geac Computer Corporation. In 2014, SAP also took over Concur, an USA-based vendor of cloud-based travel and expense management solutions. Both SAP and Oracle have added cloud-based products to their product mixes in recent years.

According to Gartner Group, the overall ERP market grew only a meagre 2.2 percent in 2012, and the ERP market may see further consolidation in the coming years. An interesting observation by Gartner Group, and other ERP consultancies (such as Panorama Consulting) is that the sales of cloud and SaaS-based ERP products have expanded at a faster rate in recent years than traditional on-premise ERP. It is predicted by many consultancies that the upward trend for cloud and SaaS-based systems will continue into the future (Columbus 2013; Teach 2016).

In addition to the popular global commercial ERP products, many countries and regions produce their own local or regional products. I list only five examples here. Data Systems Consulting (Digiwin Software), YonYou, and Kingdee products are popular in the Greater China area. Netsoft is an Indian ERP producer and consultancy based in Bangalore while TOTVS is a Brazilian vendor. There are many more small ERP producers in various countries that serve the local or regional markets which are not covered in our discussion.

Table 1-1 A Partial List of Commercial ERP Products and Vendors 2016

Company	Primary ERP Products	Company Website
Data Systems Consulting Co. Ltd.	TIPTOP ERP; Workflow ERP II; Smart ERP	http://www.dsc.com.tw; http://en.digiwin.biz/
Epicor Software Corp.	Epicor ERP; Epicor Cloud ERP; Epicor Eclipse	http://www.epicor.com
Infor Global Solutions	Infor Cloud Suite; Enterprise Asset Management; Financial Management; CRM	www.infor.com
Kingdee International Software Group Ltd.	Kingdee Enterprise Application Suite (EAS); K/3; K/3 Cloud; Business Operation System (BOS)	www.kingdee.com/en/; http://www.kingdee.com.hk
Kronos Incorporated	Global Workforce Solutions; HR & Payroll	http://www.kronos.com
Microsoft Corp.	Microsoft Dynamics AX	www.microsoft.com
Netsoft Solutions Ltd.	Impact ERP, CRM, HRM & SCM Solutions	www.netsoftindia.in
Oracle Corp.	Oracle E-Business Suites, Peoplesoft, & cloud products	www.oracle.com
Plex Systems	Cloud/SaaS ERP for business & manufacturing	http://www.plex.com/
QAD, Inc.	QAD Cloud ERP (formerly MFG/PRO)	http://www.qad.com/erp/
Sage Group	Sage ERP X3 and related products	www.sage.com
SAP AG	SAP ERP (SAP Business ByDesign, SAP Business One, SAP Business One Cloud)	www.sap.com
UNIT4 Business Software	UNIT4 Cloud ERP & industry specific solutions	http://www.unit4software.com
TOTVS	Distribution & logistics, manufacturing, & financial	http://en.totvs.com/
Yonyou Software Co., Ltd (formerly UFIDA)	Yonyou financial management, supply chain, human capital, and CRM solutions	http://www.yonyou.com.hk

The hype and reality about ERP

The advent of ERP systems is one of the most amazing phenomena in business management. If implemented properly, ERP helps a business enterprise to achieve its strategic and operational goals. Many vendors have touted their products as representing the "best business models". Needless to say, the "best practices" incorporated in their products are advertised as the panacea for many operational problems encountered by client organizations.

That is impressive indeed. Unsurprisingly, many large corporations and small and medium-sized enterprises (SMEs) in advanced countries either have already implemented or are planning to implement their ERP systems. The ERP movement has also made inroads into developing economies such as India, China, Brazil and others in the last decade. However, a reality check would awaken any rational business manager or IS professional from idealism and optimism. The last two decades have seen many ERP disasters that are so unforgettably disappointing. Among the most notorious failures are ERP projects of Hershey Foods, Nike and HP (Wailgum 2009b). Organizations which got trapped in such disasters not only suffered substantial financial loss from wasted project investments, but also enormous loss of revenue, and tarnished corporate image.

According to Robbins-Giola LLC, fifty-one percent of the ERP projects they surveyed were reportedly unsuccessful (Robbins-Gioia 2002). Likewise, forty percent of the one hundred and seventeen organizations participated in a Conference Board Canada survey said that their ERP projects had failed to meet business case objectives (Cooke, Gelman, and Peterson 2001). A review of academic studies and the reports published by trade magazines has shed light on many problems and mistakes that might be the culprits for the disappointing outcomes of ERP projects. Among the critical problems reported by consultants and researchers are the misfits between the ERP products selected and the business requirements of the ERP adopting organizations, and failures in redesigning or integrating business processes with the ERP systems. We shall take a closer look at more problems below.

Mistakes and problems

I have listed in Table 1-2 a subset of the mistakes and problems found in ERP projects reported by the trade press and academic literature. I have also mapped the entries in the table to the relevant sources which readers