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ERP

the implementation cycle



ERP: The implementation cycle

Stephen Harwood

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There are few professions which require as much continuous updating as that of the IS executive. Not only does the hardware and software scene change relentlessly, but also ideas about the actual management of the IS function are being continuously modified, updated and changed. Thus keeping abreast of what is going on is really a major task.

The *Computer Weekly Professional Series* has been created to assist IS executives keep up to date with the management ideas and issues of which they need to be aware.

One of the key objectives of the series is to reduce the time it takes for leading edge management ideas to move from the academic and consulting environments into the hands of the IT practitioner. Thus this series employs appropriate technology to speed up the publishing process. Where appropriate some books are supported by CD ROM or by additional information or templates located on the Web.

This series provides IT professionals with an opportunity to build up a bookcase of easily accessible, but detailed information on the important issues that they need to be aware of to successfully perform their jobs.

Aspiring or already established authors are invited to get in touch with me directly if they would like to be published in this series.

A handwritten signature in black ink, reading 'Dan Remenyi'. The signature is fluid and cursive, with the first name 'Dan' and last name 'Remenyi' clearly distinguishable.

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Preface

This book was written following over fifteen years of work in both academic and industrial situations in the area of Enterprise Information Management Systems and process re-engineering. This culminated in the implementation of several Information Systems within small and medium-sized companies. What was apparent was the profusion of potential problems that lay before me. Articles in the press, trade press and on the Internet provided superficial glimpses into these problems. However, there was no coherent total picture of how these problems related to each other. Furthermore, even the best of companies appear to suffer from these problems. As such, it was difficult to know how best to plan and proceed with an implementation.

This book attempts to provide the reader with the layout of an implementation. The aim is to provide a picture of what is involved in an implementation, starting from the realization that there is a need to embark on this course of action. Whilst the focus is upon a single-site, single-business operation, many of the issues are relevant to multisite/multibusiness operations. A simple approach is adopted, based on a variety of personal experiences.

It is envisaged that this book will appeal to those who are new to ERP, yet who have a need to understand what is involved in the implementation of an ERP system. This may be an owner or manager of a small or medium-sized business or a newly appointed project manager of a larger organization.

This account reveals the scale and scope of an implementation, what to prepare for, what questions to ask of the vendor during the selection and questions to ask of the selected vendor's consultants assisting with implementation. It alerts the reader to the dilemma that both technologies and vendors change rapidly. It allows the reader to anticipate potential problems and hopefully avoid them. Areas, covered elsewhere in greater detail, are dealt with here more in an introductory manner. A selected reading list will help direct the reader to relevant sources. With regard to the handling of the multitude of technological issues, these are not dealt with in any depth.

Preface

Where technical issues are introduced, this is in order to make the reader aware of them.

It should be noted that not all problems are identified. Every situation is different and there will always be something that will be particular to each organization. Nevertheless, the material presented should be sufficient to alert the reader to the warning signs of a potential problem. It is up to the reader to take the appropriate action.

Good luck.

Stephen Harwood

Acknowledgements

To write this book without assistance would have been difficult if not impossible. Much of the material draws upon my years in research and as a practitioner within the information management domain. During this time, I have had contact with many people who have helped shape my ideas. To name them would be impossible, but to those unnamed persons, I thank you for our discussions.

However, whilst writing this book a number of individuals have played a particular role in helping me. Paul Watts of Benchmark Research Ltd contributed market research information. Daniel Miklovic and Howard Dresner of Gartner Inc. made respective contributions about aspects of the ERP sector. Dr David Wainwright, Reader in Information Systems at the School of Informatics, Northumbria University, provided invaluable comments about the implementation issues. Elaine, my partner, gave her undivided support.

To them I express my deepest thanks, thanks and more thanks.



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About the author

Stephen Harwood has worked with IT since reading the subject as part of his first degree in the late 1970s. His first hand experience of ERP is underpinned by over 15 years' activity in the fields of information management, organizational change and business strategy. During this time he has gained experience of many aspects of a business's activities. Roles have included researcher, facilitator, manager and director. His particular interest is the role of Information and Communication Technologies as an enabler of strategic intent. He is currently working in a freelance capacity.



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ERP is the acronym for Enterprise Resource Planning. ERP has its roots in manufacturing, although it has evolved in a remarkably short time to address many other functions and sectors. The implementation of an ERP application is about organizational change. The focus of the ERP implementation is the ERP system. The ERP system can simply be described as an integrated information system servicing all aspects of the business. It handles transactions, maintains records, provides real time information and facilitates planning and control. However, its effectiveness is an outcome of the success of the implementation life cycle.

An ERP implementation should not be viewed purely as an IT project. It is a multidisciplinary team effort. It cuts into the very heart of the business, upturning policies, practices and power-bases. It is indiscriminate in who it stresses and strains. It requires a changing set of skills, which may at times be unique to the moment, never to be used again. If it is successful then the rewards are bountiful. Transactions are speedily processed. Timely information provides awareness of what is happening. Actions become more proactive. The payback has a positive effect on the bottom line.

However, it is easy for an ERP implementation to go wrong. Furthermore, it can be difficult to put things right. The further into the implementation life cycle, the harder it can become to put things right and the greater the associated cost. Despite all the research and experience available, it may come as a surprise that implementations can, and do, go wrong, leading in some cases to high-profile legal battles.

1.1 Using this book

The aim of this book is to guide the reader around the myriad of different issues affecting an ERP implementation. To achieve this, a simple model of an implementation has been developed. This model views an ERP implementation as a cycle of events. This cycle is presented in Figure 1.1.

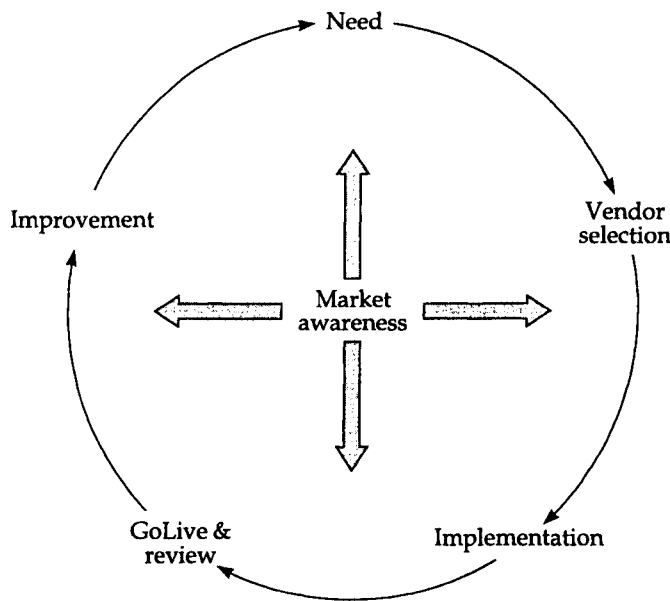


Figure 1.1
The ERP
implementation cycle

The implementation life cycle starts at the point when the **need** is recognized for a new information system. The existing system is inadequate and there is a need to do something. **Market awareness** provides an appreciation of the technology available and those providing it. This leads to the **vendor selection** process whereby a solution is sought to meet this need. The **implementation** of the solution is a complex event involving many people and culminates in the transition to a **GoLive** state. The adoption of a continuous **improvement** programme after the GoLive period enables the benefits of the system to be fully exploited. Eventually the cycle concludes with the recognition that the replacement system is inadequate and that the **need** arises again to do something. Within this cycle are a host of different activities. A breakdown of this cycle into its main activities is presented in Table 1.1.

The story begins with an attempt to develop an **awareness** of what is going on in the marketplace. Whilst relevant at all stages

Table 1.1 A breakdown of the ERP implementation cycle

<i>Stage</i>	<i>Focus</i>	<i>Activity</i>	<i>Chapters/ Section(s)</i>
0 Market awareness	Marketplace	Understand what is going on in the marketplace	2, 3, 4, 5
1 Define need	Requirements	Establish why	6.1
	Cost-benefits	Establish costs and determine benefits	6.2, 6.3
	Requirements	Determine requirements	7
2 Select vendor	Vendor offerings and fit	Establish selection process	8.1
		Execute selection process	8.2
		'Close the deal'	9
3 Implement project	Create and maintain conditions for project implementation	Establish and assign project participant roles	11.2.1
		Establish, monitor and maintain commitment	11.2.1
		Define scope	11.2.2
		Produce, monitor and update plan	11.2.3
		Establish, monitor and update budget	11.2.4
		Set up and manage problem resolution mechanisms	11.2.5
		Assess and contain risks	11.2.6
		Establish, monitor and manage performance	11.2.7
		Manage vendor relationships	11.2.8
		Install and commission hardware, software and networks	11.3
		Develop training strategy	11.4
	Implement project plan	Train project team	12.1
		Define and develop processes	12.2, 12.3
		Modify software	12.3.2
		Test (pilot) processes	12.4
		Establish and assign responsibilities for processes	12.5
		Design and create documentation	12.6
		Train users	12.7
		Set up data	12.8
	GoLive	Resolve problems	13.1
		Review	13.2
4 Post-GoLive improvements	Process performance	Improve processes	14