Preface

It is nearly two decades since my first Enterprise Information System (EIS) implementation assignment at City of Melville, Western Australia, when I was nominated by my boss, Mr. Werner Corbe, Head of the Asset Management Unit, to lead the implementation of the Integrated Asset Management System (IAMS), an enterprise modular system with engineering and financial applications to support the management of infrastructure assets pertaining to road pavement, footpaths and crossovers, buildings, street furniture, drainage system, sewage system and landscape. I guess when Mr. Corbe selected me specifically to carry out this business-critical task, he was convinced that the nature of this type of system requires special knowledge and competencies in both business and technology, and since I was then a practicing asset management engineer and I was at the same time completing my Masters degree in Intelligent Information Processing Systems at the University of Western Australia, my chances to be designated this task were better than colleagues who were specialized in either business or technology but not both.

What I was not fully conscious of then is that the successful accomplishment of this mission, which was concluded with the satisfaction and endorsement of the City Mayor and the members of the City Council, was in a very mysterious way shaping my career path and paving the way for a highly challenging yet enjoyable journey of academic and professional specialization track in Enterprise Information Systems (EIS) and Enterprise Resource Planning (ERP) systems in particular.

Academically, over the past two decades, I have completed a doctorate level action research, which has included in its investigation scope twenty-seven major EIS projects in both Australia and the Gulf region. This research has not only deepened my understanding of the EIS and ERP issues, but has also culminated in the development of the Integrated Project Risk Management Model (IPRM) offering an alternative implementation approach with the potential to substantially reduce the likelihood of EIS and ERP failures. The results of this research reflected different aspects of EIS / ERP implementations in numerous Gulf organizations, and the findings were the subject of tens of research papers that were presented at prominent conferences.
My related publications include three books and more than twenty peer-reviewed articles and research papers, which were the subject of seminars, workshops, and public presentation.

Also as university faculty, I have taught EIS and related subjects in undergraduate and post-graduate level courses at Abu Dhabi University and other institutions in Australia and the Gulf region.

Professionally, I have firsthand experience with ERP issues from the viewpoint of both the vendor (as a consultant or manager) and the client (as subject matter expert or team leader). My ERP roles were not only diversified in the nature of the designation and responsibility, but also in terms of direct involvement in all stages through the ERP life-cycle (pre-implementation, implementation, and post-implementation).

This unique and successful experience in the early nineties has evidently signaled the beginning of an interesting career track that was enriching, exciting, and self-gratifying in many aspects, although not lacking in stress, pressures, frustration, and pain, which were frequently encountered in different projects.

Since the mid 90s, many business organizations have accepted EIS / ERP applications as their preferred platforms for integrating disparate enterprise functions and automating business processes. Organizations were longing for substantial business gains as an outcome of implementing such costly systems. However, nearly a decade after the introduction of these systems, organizations are weighing the diverse functional issues they have encountered, including technical problems, security threats, persisting end-user resistance, and excessive hidden costs. The big number of reported ERP implementation failures has also contributed to cynical views about the usefulness and worth of such systems, especially after taking into account the business risks associated with excessive hidden costs, complex business models, business process re-engineering, change management, and negative impacts on end-user perceptions.

The experiences of EIS projects successes and failures are worth consolidating for both professionals and academics to use as teaching cases and lessons learned. How successful have enterprise solutions been in Gulf countries? What were the persisting issues? Have the promised benefits and investment returns been realized by the Gulf organizations? What is the outlook of enterprise systems in the Gulf? What are the lessons learned? Arabian Gulf countries (Saudi Arabia, Qatar, UAE, Kuwait, Oman, and Bahrain) have led the region in the adoption and utilization of enterprise information systems. Gulf region organizations’ expenditures on enterprise systems since the 90s have exceeded those of many developed countries, and have outpaced those of other countries in the Middle East region. Observers attribute this phenomenon primarily to the unprecedented increase in oil prices, but also acknowl-
edge the role of expatriate employees in technology investment decision-making at senior or middle management levels or even as specialists, advisors, and consultants.

There are many EIS stories to tell and experiences to share that are of interest to both specialists and academics. The cases in this book investigate important EIS implementations in different Gulf organizations, reflecting the first hand experiences of consultants, managers, and experts working on real projects.

This unique book on enterprise systems is an indispensable source of EIS cases from organizations in the Gulf region. These cases are distinguished by high technology investment over the past 15 years in a culture that highly regards human values. EIS practitioners and academics in the region and globally will find the book cases to be both informative and enjoyable to read. The book focuses on EIS specialists’ experiences implementing enterprise systems, delivers a comprehensive multi-perspective account of EIS issues, and explores the concerns, problems, risks, and critical success factors of EIS for a variety of organizations.

Conscious of the difficulty in finding relevant EIS material and documented cases to benefit from, and use by both practitioners and academics, the book attempt to fill in this gap by meeting different audiences’ requirements and demands.

The book is a useful resource to support demand of teaching (academics and students), to use as a text supporting cases and material for IS/IT and MIS undergraduate and post-graduate courses, and could also be used by academic researchers as a reference and source of cases for further research.

The book could also be a useful reference for analysts, consultants, managers, and staff (vendors and clients) who may be involved in any of the following phases in the life of such systems: system selection, system adoption, system implementation, and system post-implementation.

The cases covered in the book highlight and investigate important aspects of enterprise information system issues in Gulf organizations in any of the systems’ life-cycle stages, providing detailed accounts of the settings and highlighting the problem situations, challenges, opportunities, and decisions.

The textbook is organized in 16 chapters, covering through the reflections of practitioners and experts a multitude of EIS aspects and issues encountered in different implementations in Gulf organizations. Each chapter presents one or more cases for examination with a focus on a selected issue or question using analytical tools to highlight strengths and opportunities or identify weakness, vulnerabilities, and threats as an input for drawing on the lessons learnt from the experience.

Chapter 1 attempts to examine the nature and causes of issues, problems, and concerns that were observed by an ERP consultant in one of Kuwait’s Oil and Gas ERP implementations, and suggests the introduction of new and enhanced features in ERP system implementation methodologies as a means to cope with potentially
damaging issues, problems, and concerns, and prevent them from evolving into malicious risks that could lead to project failures.

Chapter 2 reports on the successful implementation of EIS system in UAE Oil producing company. The author, who was in the project, reflects on the experience, which involved the replacement of the existing maintenance, supply, and commercial system with a new enterprise information system and the upgrade of the human resources and financial systems to the latest releases. The chapter discusses the challenges that were encountered and how change was managed, and extracts important lessons learnt from the experience.

Chapter 3 moves away from business organizations to the education sector, to emphasize the importance and potential of Enterprise Resource Planning in educational organizations. It discusses the main objectives and benefits from utilizing such applications to support the integration, automation, and optimization of educational processes and functions. The chapter is specifically concerned with school ERP solution systems that offer complete school management software and cover all the functions that contribute to the smooth functioning of school activities. As it examines ERP solutions in the educational sectors, the study focuses on the case of ERP usage and utilization in the United Arab Emirates (UAE) public (government schools).

Chapter 4 is concerned with green implementation of EIS systems. It describes any EIS implementation as a complex journey and suggests that ERP end-users compare to confused travelers in an alien land. It takes them time to be familiarized with routes, signs, languages, and people, and similarly, just as they think they are finding their way with the system, someone announces it is time to upgrade and to start to move again. The case reflects an interesting implementation of a major UAE Oil and Gas Services Company. It highlights a novel approach that was mandated by necessity as the project was managed remotely and executed primarily by internal resources, making it a lean and green implementation.

Chapter 5 is concerned with an important subject that echoes the debate and the comparison of the pros and cons of in-house development enterprise information applications to the deployment of configurable EIS packages. The case provides an insight into an in-house development of a paperless medical system for a Gulf Off-Shore Operating Company. The case study is an example of how a solution was decided and implemented. It touches on the positive and negative aspects of the decision to build the application in-house rather than implement a software package and covers a range of issues that were encountered during every phase of the development life cycle. The author’s familiarity with ERP packages and his role as a designer and developer adds value to the argument and to the analysis of the structured approach that was adopted.
Chapter 6 touches on an important decision, that needs to be taken during the post-rollout stage of the ERP systems life cycle, whether to replace or upgrade. In many cases, this translates into a critical management-sponsored mission designating a dedicated team or task force to investigate the feasibility of the alternative options and to report on the preferred option with a recommendation of the way forward and implementation approach. This case reflects on the investigations of Gulf Telecom Company in exploring the viability and feasibility of its ERP options to support and provide the grounds for a management decision to mark the next phase of the ERP in the organization. The case describes the approach that was adopted by Gulf Telecom and highlights the challenges to accomplish the mission successfully and any lessons learned from this experience.

Chapter 7 suggests that the high rate of reported failures in ERP implementation projects warrants the urgent need to identify the causes of such failures and the preventing actions associated with these causes. This case highlights some of the important issues, problems, and challenges that the author has encountered as a project manager of ERP system implementation in an Oil and Gas company in Kuwait. The focus of the case is on lessons learned and tips that can be handy and useful for people who may resume this important role in implementation projects.

Chapter 8 explores another interesting case from the education sector in the region, in its efforts to achieve excellence with the help of a technology-based solution. This positive attitude to new technologies explains GPS’s continuous lookout for the latest advancements in educational technology aids and tools to support its functions and processes. However, the approach adopted for the selection and deployment of the new enterprise system had proven to be inadequate and the venture did not go smoothly. The case reflects on the ups and downs associated with GPS decision to implement an ERP system with the promise of major business gains that can help GPS to reinstate its position in the leaders’ quadrant.

Chapter 9 highlights the criticality of the End-Users’ factor to the success or failure of the ERP venture. This case highlights the ineffectiveness of the current approaches to ERP end-users’ “training and competency building,” that are commonly applied in ERP implementations and describes an alternative structured approach that redefines the traditional role of “ERP Training” from isolated implementation project activities concerned with introducing end-users to “how to” use ERP applications to an integral part of a comprehensive “knowledge and change management” strategy that advocates a holistic life-cycle approach to managing ERP Critical Success Factors. The proposed approach, which is built around “end-user characterization” as the main input into “competency building” is flexible enough to plug into standard ERP methodologies and may be projected throughout the ERP life-cycle.
Chapter 10 reflects on the challenges encountered in the cases of three UAE Computerized Maintenance Management System (CMMS) Projects, comparing the effectiveness and suitability of the dynamic data-feeding strategies and approaches adopted in the three cases and the level of business improvement through proper usage and utilization. Lessons learned are drawn from the experience to suggest improved methods for favorable outcomes.

Chapter 11 proposes that transformational e-government projects and large-scale Enterprise Information System (EIS) implementation projects have one thing in common: they both overrun their time and budget due to unclear vision and unrealistic expectations. The aim of this chapter is to report on a success story of implementing e-government in the Higher Education Admission Centre (HEAC) that is beneficial in providing an insight to both categories of projects. The case is unlike many other case studies that look at project failures. It is concerned with exploring and discussing the key critical factors that facilitate the success of the projects of both categories.

Chapter 12 focuses on the challenges encountered and strategy used during the Integrated Enterprise Asset Management (IEAMS) project from its inception to Go-Live. It has integrated all of the related processes with the involvement of all concerned stakeholders. IEAMS has replaced over 100 legacy, standalone, and custom applications with IBM MAXIMO system. The consolidation of these applications and associated data represented a challenge in data integrity, cleansing, transformation, migration, and upload to IBM MAXIMO as a unified data repository. With special attention to the human factor, a comprehensive end-users training program and extensive change management program was carried out to promote awareness about IEAMS in the company before the Go-Live.

Chapter 13 claims that the realization of the sought business gains and promised returns on investment of Enterprise Information Systems are conditional to having an effective strategy to support and maintain such systems technically and functionally during the post-implementation phase. It is argued that the proper implementation of Information Technology Infrastructure Library (ITIL) represents an ideal forum for providing effective support tools that include service/help desk and incident reporting functions for end-users to report problems and issues or request enhancements, change management and configuration management functions to manage and document changes to the applications and functionalities, IT infrastructure inventory, and tracking applications. The case reflects on the approach adopted by the IT Division (ITD) of Arabian Gulf Company (AGC) in its ITIL implementation and the main challenges that have been encountered in that project.

Chapter 14 reports on the challenges associated with the replacement of a human resources legacy in-house developed system with package solutions in Gulf Organization. These challenges range from the resentment to change by many end-users
to system pitfalls that contribute to end-users hesitance to accept the new system and consequently leading to low usage and utilization. The case also highlights cultural issues and poor priority settings that were attached to some non-professional aspects. The case study is an example of how a project could take a dangerous turn from what was agreed on and also reflects on the results from additional detours that were made during its life cycle until sign off.

Chapter 15 reports on the case of a project to build a system to manage the development of young university graduates, and to equip them with the experience and skills necessary for integrating them in the company workforce. The case study focuses on: 1) the development of the Proof of Concept (POC) that aimed at creating a prototype, 2) how the POC was transformed to a fully functional multi-user system, and 3) how the experience obtained was later used to help in building a unified system for the Oil and Gas sector in the country. The case also discusses the challenges, measures, and countermeasures taken to address them, and the lessons learned to ensure the project was delivered to stakeholders.

Chapter 16 discusses the challenge of transforming data and information in enterprise information systems into knowledge that can be rolled up and presented to management as key performance indicators. The implementation of a business intelligence layer on top of the transaction processing systems and management information systems is viewed as an opportunity to move up a level to promote knowledge-based decision-making and strategic planning. This chapter attempts to examine the issues and challenges associated with the initiative by Abu Dhabi Finance to implement business intelligence solutions that extract information from the enterprise information systems, present them as KPIs for senior management, and produce knowledge that can be used to support decision-making and strategic planning.

To this end, the main objective of this case book is to bring together different and insightful experiences from EIS practitioners from the Gulf region to reflect on their personal experiences with EIS implementations issues, challenges, and lessons learnt. I expect this book to be an essential reference and a resource on Enterprise Information Systems in the Arabian Gulf region.

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