



Chapter XVII

A Comparative Analysis of Major ERP Life Cycle Implementation, Management and Support Issues in Queensland Government

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ABSTRACT

This chapter reports on a study of issues across the ERP life cycle from the perspectives of individuals with substantial and diverse involvement with SAP Financials in Queensland Government. A survey was conducted of 117 ERP system project participants in five closely related state government agencies. Through a modified Delphi technique, the study inventoried, synthesized, then weighted perceived major-issues in ongoing ERP life cycle implementation, management, and support. The five agencies each implemented SAP Financials simultaneously using a common implementation partner. The three Delphi survey rounds, together with a series of interviews and domain experts' workshops, resulted in a set of 10 major-issue categories with 38 sub-issues.

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Sub-issue weights are compared between strategic and operational personnel within the agencies in order to understand where the organizations should focus their resources in order to avoid, minimise, or eliminate these issues. Study findings confirm the importance of this finer partitioning of the data, and distinctions identified reflect the unique circumstances across the stakeholder groups. The study findings should be of interest to stakeholders who seek to better understand the issues surrounding ERP systems and to better realize the benefits of ERP.

INTRODUCTION

Organizations worldwide, whether public or private, are moving away from developing Information Systems (IS) in-house and are instead implementing Enterprise Resource Planning (ERP) systems and other packaged software (AMR Research, 1998; IDC Software Research, 2000; Price Waterhouse, 1995). ERP has been referred to as a business operating system that enables better resource planning and improved delivery of value-added products and services to customers. ERP systems have, in recent years, begun to revolutionise best practice business processes and functions. They automate core corporate activities such as manufacturing and the management of financial and human resources and the supply chain, while eliminating complex, expensive links between systems and business functions that were performed across legacy systems (Bingi et al., 1999; Gable et al., 1998; Klaus et al., 2000; Rosemann and Wiese, 1999).

Despite warnings in the literature, many organizations apparently continue to underestimate the issues and problems often encountered throughout the ERP life cycle, as evidenced by suggestions that: (1) more than 40% of large software projects fail; (2) 90% of ERP implementations end up late or over budget; and (3) 67% of enterprise application initiatives could be considered negative or unsuccessful (e.g., Martin, 1998; Davenport, 1998; Boston Consulting Group, 2000).

ERP life cycle-wide management and support are ongoing concerns rather than a destination. The pre-implementation, implementation, and post-implementation stages continue throughout the lifetime of the ERP as it evolves with the organization (Dailey, 1998). Unlike the traditional view of operational IS that describes a system life cycle in terms of development, implementation, and maintenance, examination of ERP implementations is revealing that their life cycle involves major iterations. Following initial implementation there are subsequent revisions, re-implementations, and upgrades that transcend what is normally considered system *maintenance*. As the number of organizations implementing ERP increases and ERP applications within organizations proliferate (Bancroft, 1998; Davenport, 1996; Hiquet et al., 1998; Shtub, 1999), improved understanding of ERP life cycle implementation, management, and support issues is required so that development, management, and training resources can be allocated effectively (Gable et al., 1998). A better understanding of ERP life cycle issues will also help direct the ERP research agenda.

Although ERP sales in 2000 declined for the main vendors (e.g., SAP, Baan, ORACLE, JD Edwards, Peoplesoft) due to post-Y2K curtailment in IT/IS activity and to saturation of large organizations, the outlook through to 2004 is for compound annual growth of 11.4% for license, maintenance, and related service revenue associated with enterprise resource management applications (IDC Software Research, 2000). This sustained interest in implementing and realising the benefits of ERP systems, and the

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