

Chapter 13

Enterprise Resource Planning: An E-Entrepreneurial Challenge

John Douglas Thomson
RMIT University, Australia

ABSTRACT

The Enterprise Resource Planning (ERP) entrepreneurial venture challenge for the innovators was to develop an ERP database using standard generic database software within existing resources and available data at lowest cost in minimum time. The generic ERP database model so developed was completed as a part time task by two innovative entrepreneurs over twelve months for the Australian Department of Defense. They used standard generic database software, existing data, with no additional resources or external consultants. This action research was undertaken on a longitudinal basis by the two entrepreneurs networking closely with the many internal and external stakeholders. The Australian Department of Defense is a complex, high tech Australian Federal Government Department of around 90,000 employees. In 2008-09 the Australian Department of Defense will spend more than \$9.6 billion acquiring and sustaining military equipment and services, and will employ over 7,500 people in more than 40 locations around Australia and overseas (Department of Defense, 2009). This comprises the procurement of defense capability products (goods and services) and their support and maintenance from almost every industry sector, on a global basis. Hundreds of small to large enterprises are dependent on the Australian Department of Defense for such orders. The anticipation of the developers of the ERP database was that this entrepreneurial venture could not only help the Australian Department of Defense become an inclusive knowledge based learning society, but subsequently provide an inexpensive database model for other organizations, large or small.

INTRODUCTION

Enterprise resource planning (ERP) is an organization wide computer software system used to manage and coordinate all the resources, information and

functions of a business from shared data stores (Esteves, & Pastor, 2004). An ERP system can facilitate the smooth flow of common functional information and reduce cycle times. However, without top management support having an appropriate business strategy, plan and vision, busi-

DOI: 10.4018/978-1-61520-597-4.ch013

ness processes, effective project management, user involvement and education and training, organizations cannot embrace the full benefits of such complex system and the risk of failure might be at a high level (Al-Fawaz, Zahran, & Tillal, 2008). Due to the complexities of most ERP vendor systems and the negative consequences of a failed ERP vendor implementation, most ERP vendors have included 'best practice' into their software. These are what the ERP vendor deems as best practice to carry out a particular business process in an integrated enterprise-wide system (Monk, & Wagner, 2009) – that is, from the ERP vendors point of view.

An ERP study conducted by Lugwigshafen University of Applied Science (2004) surveyed 192 companies. It concluded that companies which implemented SAP's industry best practices decreased mission-critical project tasks such as configuration, documentation, testing and training – but how objective was such research? There is but limited, recent, rigorous, objective literature on ERP. Much of the literature is sourced from and based upon evidence provided by the ERP vendors themselves, their data, their perspectives and their advice. ERP vendors have designed their systems around standard business processes, based upon their perceptions of best business practices. Different ERP vendors have different types of processes but all are of a standard, modular nature. Some of these may well be suited to many organizations, but which one suits which organization best?

Firms that want to implement ERP vendor systems may be consequently forced to adapt their organizations to the ERP vendor's standardized processes or adapt the ERP vendor's package to the organization's existing structure, systems and processes (Turban, 2008). Neglecting to map current business processes prior to starting ERP implementation is a main reason for failure of ERP projects (Brown, & Vessey, 2003).

It seems necessary for organizations to perform a thorough business process analysis before selecting an ERP vendor and undertaking ERP

implementation. Such analysis should map current structures, organization, systems and operational processes to enable the selection of an ERP vendor whose standard modules are most closely aligned with the established organization (King, 2005; Yusuf, Gunasekaran, & Abthorpe, 2004). ERP implementation is difficult and politically charged in organisations structured into nearly independent business units because they may each have different processes, business rules, data semantics, authorization hierarchies and decision centres (Daneva, & Wieringa, 2008). ERP implementation can cause significant centralization of arrangements, such that once implemented may then limit the freedom and flexibility or needs of the organization to adapt quickly to environmental changes in the organization's situation without incurring significant costs, lengthy duration and significant change management and organizational turmoil.

BACKGROUND

ERP vendor solutions often include significant change management requirements coordination. A disadvantage usually attributed to ERP is that business process redesign to fit the standardized ERP vendor modules can lead to a loss of existing competitive, quality, or efficiency and effectiveness advantages. While documented cases exist where this has occurred, other cases show that following thorough process preparation, ERP systems can increase sustainable competitive advantage (Turban, 2008; Dehning, & Stratopolous, 2003). Koch and Wailgum (2007) suggest that ERP attempts to integrate all departments and functions across an organization onto a single computer system that can serve different individual's particular needs. Individuals should all be able to see the same information.

Most ERP vendor systems were designed to be used by discrete manufacturing companies rather than process manufacturers, other private

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/enterprise-resource-planning/41157

Related Content

Key Drivers of Performance and Profitability in a Social Business

Daisy Isabella van Steenberg, Paulo Graça Ramos and Bruno Barbosa Sousa (2021). *Sustainable and Responsible Entrepreneurship and Key Drivers of Performance* (pp. 264-281).

www.irma-international.org/chapter/key-drivers-of-performance-and-profitability-in-a-social-business/282920

The Procrustean Nature of AI and the Legal Implications of Its Use in the Criminal System Decision Making of Argentina

Fernando Barrio (2023). *Government Response to Disruptive Innovation: Perspectives and Examinations* (pp. 80-92).

www.irma-international.org/chapter/the-procrustean-nature-of-ai-and-the-legal-implications-of-its-use-in-the-criminal-system-decision-making-of-argentina/323495

The Impact of Corporate Social Responsibility on Organisational Citizenship Behaviour, Work Engagement, and Job Embeddedness

Ferman Omar Ismael, Mehmet Yeiltepe and Simbarashe Rabson Andrea (2021). *International Journal of Sustainable Entrepreneurship and Corporate Social Responsibility* (pp. 19-29).

www.irma-international.org/article/the-impact-of-corporate-social-responsibility-on-organisational-citizenship-behaviour-work-engagement-and-job-embeddedness/270470

Simulating E-business Innovation Process Improvement with Virtual Teams Across Europe and Asia

Kenneth D. Strang and Cliff E.L. Chan (2010). *International Journal of E-Entrepreneurship and Innovation* (pp. 22-41).

www.irma-international.org/article/simulating-business-innovation-process-improvement/40921

The Impact of Communication Language on Entrepreneurship in Cameroon

Joël Stephan Tagne (2020). *International Journal of Sustainable Entrepreneurship and Corporate Social Responsibility* (pp. 17-33).

www.irma-international.org/article/the-impact-of-communication-language-on-entrepreneurship-in-cameroon/259406