

## Chapter 1.4

# Enterprise Systems in Small and Medium-Sized Enterprises

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### ABSTRACT

The market for enterprise systems (ES), continues to grow in the post millennium era as businesses become increasingly global, highly competitive, and severely challenged. Although the large enterprise space for ES implementation is quite stagnated, now all of the ES vendors are focusing on the small to medium-sized enterprise (SME) sector for implementations. This study looks at the current ES implementation scenario in the SME sector. The purpose of the study is to gain insights into what is a typical case of ES implementation and to understand how current implementations in the SME sector differ from the earlier implementations in the large enterprise sector through a perspective

of ES vendors, ES consultants, and IT research firms in a NZ context. Implications for practice in implementation processes, implementation models, and organizational contexts are discussed.

### INTRODUCTION

Enterprise systems (ES), also known as enterprise resource planning (ERP) systems, are large, complex, highly integrated information systems designed to meet the information needs of organizations and are, in most cases, implemented to improve organizational effectiveness (Davenport, 2000; Hedman & Borell, 2002; Markus & Tanis, 2000). These are comprehensive, fully integrated software packages supporting automation of most standard business processes in organizations including extended

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modules such as supply chain management (SCM) or customer relationship management (CRM) systems. ES applications connect and manage information flows across complex organizations, allowing managers to make decisions based on information that accurately reflects the current state of their business (Davenport & Harris, 2005; Davenport, Harris, & Cantrell, 2002). In a more integrated and global market, extended ES offers new functions and new ways of configuring systems, as well as web-based technology to establish the integrated, extended business enterprise (Shanks, Seddon, & Wilcocks, 2003). The market for ES continues to grow despite much speculation on its future in the post millennium era. Although most large enterprises have completed their ES implementations by now, the ES market continues to grow in the small and medium-sized enterprises (SME) sector. A number of research studies have been conducted to establish and understand the critical success factors for ES implementations (e.g., Allen, Kern, & Havenhand, 2002; Bancroft, Sep, & Sprengel, 1998; Holland & Light, 1999; Parr & Shanks, 2000; Plant & Willcocks, 2006; Sarker & Lee, 2000; Scott & Vessey, 2002; Skok & Legge, 2001; Sumner, 1999; Yang & Seddon, 2004). However, there has been little research that examines ES implementation at the strategic decision-making process level (Viehland & Shakir, 2005) and compares current implementations in the SME sector with earlier implementations in the large organizations. The purpose of this study is to examine the current ES implementations scenario in New Zealand. The main objectives of this study are to explore what is a typical case of ES implementation and to understand how current implementations in the SME sector differ from the earlier implementations in the large enterprise sector. The study does so through a practitioners' perspective, with interview data collected from ES vendors, ES consultants, and IT research firms who are actively engaged in ES implementation. This approach differs from the organizational approach usually found in the

literature. This is a replication study following a similar approach used by Shakir (2002), who also investigated aspects of ES implementation in the NZ vendor-and-consultant community. The focus of that study was to identify key drivers influencing ES adoption and implementation (e.g., Shakir and Viehland, 2004) whereas the focus of the current study is to understand how current implementations in the SME sector differ from the earlier implementations in the large enterprise sector. The current study extends and builds upon existing ES research.

Semi-structured interviews were conducted with key players of ES implementations in New Zealand including ES vendors, ES consultants, and IT research firms to explore the current ES implementation scenario. Several measures such as the number of users, modules implemented, cost of implementation, number of sites/locations where implemented, industry type, organization size, implementation phases, time to implement, implementation partners, and levels of customization were discussed to understand a typical case of ES implementation and current implementation practices. The empirical findings are analyzed and reported in this paper. This study has been conducted in a New Zealand (NZ) context which can be extended to show current trends worldwide.

## **RESEARCH METHODOLOGY**

Using a qualitative research methodology, data were collected by way of semi-structured interviews with ten key respondents in the ES implementation industry. The interviews were carried out between February and August 2006. The key respondents were senior ES consultants or senior managers in the organizations which are key players in the field of ES in New Zealand, principally major ES vendors, ES consultants, and IT research organizations (see Table 1). The positions of the respondents included: director professional services, consulting manager, manag-

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