

## Chapter 83

# A Framework for Enabling Dynamic E–Business Strategies via new Enterprise Paradigms and ERP Solutions

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### ABSTRACT

*In the global Internet economy, e-business as a driving force to redefine business models and operational processes is posing new challenges for traditional organizational structures and information system (IS) architectures. These are showing promises of a renewed period of innovative thinking in e-business strategies with new enterprise paradigms and different Enterprise Resource Planning (ERP) systems. In this chapter, the authors consider and investigate how dynamic e-business strategies, as the next evolutionary generation of e-business, can be realized through newly diverse enterprise structures supported by ERP, ERP II and so-called “ERP III” solutions relying on the virtual value chain concept. Exploratory inductive multi-case studies in manufacturing and printing industries have been conducted. Additionally, it proposes a conceptual framework to discuss the adoption and governance of ERP systems within the context of three enterprise forms for enabling dynamic and collaborative e-business strategies, and particularly demonstrate how an enterprise can dynamically migrate from its current position to the patterns it desires to occupy in the future – a migration that must and will include dynamic e-business as a core competency, but that also relies heavily on ERP-based backbone and other robust technological platform and applications.*

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## INTRODUCTION

E-business is concerned with web-based electronic business transactions and trading activities, which has presented many firms with significant opportunities in a collaborative manner with business partners, suppliers, customers, and even competitors in value chain processes. With the emerging rise in economic globalization, the growth of networked organizations, and rapid development of Internet technology, e-business accompany with information and communication technologies (ICT) tools (particularly ERP systems) has become the center of information exchange and the focus of competitive enterprises (Cen & Ying, 2008; Winter, 2011). However, as more and more companies realize that they need to establish strategic alliances with other entities over the Internet around business networks, traditional e-business strategies that still just display their products/services via the electronic trading platforms will be disadvantaged over those harnessing the concept of the ‘virtual value chains’ and e-marketplace concepts (Rayport & Sviokla, 1995; 1996; Porter & Millar, 1985). Thus, dynamic e-business strategy has emerged as a key enabler for information integration and collaborative networks’ seamless connectivity. It intends to support an end-to-end enterprise spanning multiple companies for improving information and decision flow in order to enhance the performance of inter-firm relationships.

Management literature often refers to “organization” and “company” (Galbraith, 2002), whilst this study uses the term “enterprise” to reflect the current phenomena whereby business activity is not always carried out by a single legal entity or by itself, which is explained further in this chapter. Particularly, an enterprise is defined as “... any entity irrespective of its legal form, which includes partnerships or associations that can be made up of parts of different companies, as well as regularly engaging in an economic activity.” (European Commission, 2003). As the possible

scope of collaboration among organizations is infinite, the importance of these new enterprise paradigms has been recognized by three main structural types: vertically integrated enterprises (VIE) (Lynch, 2003; Joskow, 2003), extended enterprises (EE) (Powell, 1990; Davis & Spekman, 2004), and virtual enterprises (VE) (Byrne & Brandt, 1993; Goranson, 1999). The main types of related technical support systems that support these advances include web-based Service Oriented Architecture (SOA), Platform as a Service (PaaS), and Software as a Service (SaaS) (Bass & Mabry, 2004; Torbacki, 2008; Candido et al., 2009) which have grown out of more traditional ERP systems.

Although some arguments concern the commonalities and differences between ERP and e-business, and some researchers have coined a new version of “enterprise = ERP + e-business” (Madu & Kuei, 2004; Kumar & Thapliyal, 2010) for leveraging and facilitating ERP enabled e-business integration, it is criticized as there lacks sufficient consideration and contribution to the critical issues regarding how firms can achieve and afford dynamic e-business strategies and capabilities via new enterprise paradigms (i.e. VIE, EE, and VE) and different ERP systems that reinforce them based on a holistic perspective by blending e-business strategy, enterprise structure, and information systems. Furthermore, since current ERP and ERP II systems are not able to support virtual enterprise requests for pursuing and shaping the most effective and efficient dynamic e-business, we propose a contingency term called “ERP III” in this chapter to describe such agile enterprise management systems that may operate most effectively in the new virtual value network.

This research study is important because of the increasingly competitive dynamic business circumstances. Modern companies are compelled to improve their competencies by incessantly redefining and developing e-business models alongside essential collaborative value creation.

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