

# Chapter 14

## Challenges in Enterprise Information Systems Implementation: An Empirical Study

Ashim Raj Singla

*Indian Institute of Foreign Trade, New Delhi, India*

### ABSTRACT

*Enterprise Information Systems are the most integrated information systems that cut across various organizations as well as various functional areas. Small and medium enterprises, competitor's behavior, business partner requirement are the identified and established dimensions that affect these systems. Further it has been observed that such enterprise wide software systems prove to be a failure either in the design or its implementation. A number of reasons contribute in the success or failure of such systems. Enterprise information systems inherently present unique risks due to tightly linked interdependencies of business processes, relational databases, and process reengineering, etc. Knowledge of such risks is important in design of system and program management as they contribute to success of overall system. In this chapter an attempt has been made to study the design and implementation risks factors for ERP systems in large scale manufacturing organizations. Based on the model used to study ERP risks and thus the findings, various recommendations have been put forward to suggest a strategy so as to mitigate and manage such risks.*

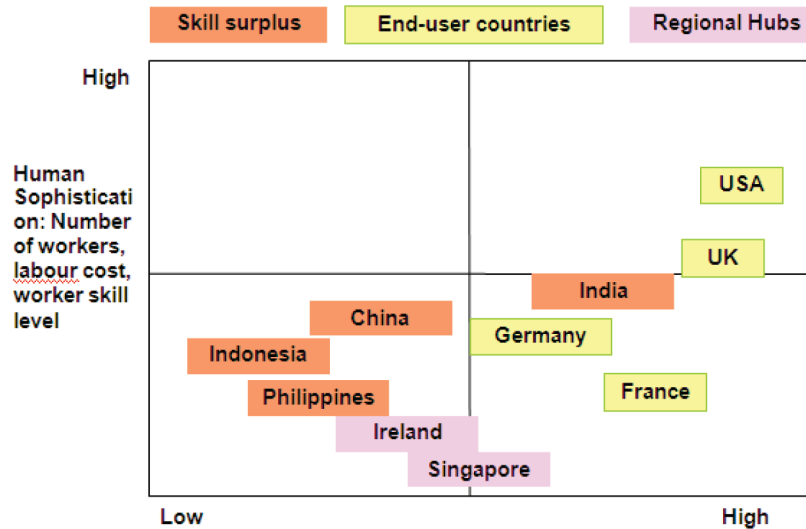
### INTRODUCTION

Enterprise Information systems are a corporate marvel, with a huge impact on both the business and information technology worlds. Organizations today have been talking about Enterprise Resource Solutions as a means of business innovation. They

are designed to enhance competitiveness by upgrading an organization's ability to generate timely and accurate information throughout the enterprise and its supply chain. A successful Enterprise wide information system implementation can shorten production cycles, increases accuracy of demand for materials management & sourcing and leads to inventory reduction because of material management, etc. ERP is the first such enterprise wide product,

DOI: 10.4018/978-1-61520-625-4.ch014

Figure 1. Vendor sophistication: Number of vendors, vendor quality (source: Frost and Sullivan)



implementing client server concept and which has changed nature of jobs in all functional areas and provides one of the primary tool for reengineering. The ERP is being used for improving business productivity, streamlining business operations, reducing cost and improving efficiency world-wide. ERP systems act as integrators, bringing multiple systems together under one program and database. Further, CRM help in keeping a better track on customers thereby improving business processes. Whereas, a typical legacy IT systems are composed of multiple software products, each operating discretely, often resulting in conflicting information for an executive to reconcile when determining profitability status and growth strategies. With Sarbanes Oxley and other regulatory requirements, it is becoming increasingly difficult for utilities to operate or be compliant without full integration across the enterprise. Thus the adoption of ERP is going to increase.

Today, India has emerged as the fastest growing IT hub in the world with growth dominated by IT software and services such as Custom Application Development & Maintenance (CADM), System Integration, IT Consulting, Application Man-

agement, Infrastructure Management Services, Software testing, Service-oriented architecture and Web services.

## THE IT INTELLECTUAL ADVANTAGE FOR INDIAN SMES

India has always been considered as a strong IT destination due to its young tech-savvy English speaking population. When being rated on Human sophistication, India comes just below two nations which are US and UK while on vendor sophistication; we are almost equal to Germany and share way better than China. This is being depicted in the IT Intellectual advantage chart being shown above in figure 1. (Source: Frost & Sullivan, 2006).

Hence, the intellectual advantage is all there, but what India needs is that this knowledge should be passed to the grassroots. The challenging Indian mid-market needs an understanding of the advantages of technology as it helps them to integrate with large business supply chain for faster decision making and planned time management.

12 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/challenges-enterprise-information-systems-implementation/42259](http://www.igi-global.com/chapter/challenges-enterprise-information-systems-implementation/42259)

## Related Content

---

### Process Re-Engineering Success in Small and Medium Sized Enterprises

Jeffrey Chang, Margi Levyand Philip Powell (2009). *International Journal of Enterprise Information Systems* (pp. 14-26).

[www.irma-international.org/article/process-engineering-success-small-medium/37198](http://www.irma-international.org/article/process-engineering-success-small-medium/37198)

### Validation of Model: The Process

(2013). *Managing Enterprise Information Technology Acquisitions: Assessing Organizational Preparedness* (pp. 160-167).

[www.irma-international.org/chapter/validation-model-process/76977](http://www.irma-international.org/chapter/validation-model-process/76977)

### The Consistency of Virtual Organizations Enabling Capabilities and Improvements in Knowledge Management Performance

Ali Moeini, Alireza Farmahini Farahaniand Ahad Zare Ravasan (2013). *International Journal of Enterprise Information Systems* (pp. 20-43).

[www.irma-international.org/article/consistency-virtual-organizations-enabling-capabilities/77849](http://www.irma-international.org/article/consistency-virtual-organizations-enabling-capabilities/77849)

### Toward UML-Compliant Semantic Web Services Development

Diana M. Sánchez, César J. Acuña, José María Caveroand Esperanza Marcos (2012). *Enterprise Information Systems and Advancing Business Solutions: Emerging Models* (pp. 313-325).

[www.irma-international.org/chapter/toward-uml-compliant-semantic-web/66583](http://www.irma-international.org/chapter/toward-uml-compliant-semantic-web/66583)

### Selecting the Optimal Vendor of Customer Relationship Management System for Medical Tourism Industry Using Delphi and AHP

Pi-Fang Hsu, Kuo-Yu Lanand Chia-Wen Tsai (2013). *International Journal of Enterprise Information Systems* (pp. 62-75).

[www.irma-international.org/article/selecting-optimal-vendor-customer-relationship/76900](http://www.irma-international.org/article/selecting-optimal-vendor-customer-relationship/76900)