

Chapter XXI

Designing to Deploying Customisable ERP Cost Effectively

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ABSTRACT

ERP systems have become key enablers of businesses today. While many organizations wish to adopt ERP for competitive advantage, they find choosing, using, and realizing expected benefits from, appropriate ERP extremely daunting, given the multitude of factors and options along technologies, vendors, people, and customisation cost and time. It is in this context that the experience presented in this chapter from two Indian projects on designing to deploying ERP systems—for two different organizations engaged in education and construction—becomes very relevant. Reporting on the various processes, practices, techniques, and methods employed through the projects, and the lessons learnt therefrom, the paper argues that time has come for designing and deploying industry-neutral generic ERP systems cost effectively. It proposes that through a combination of appropriate technologies, innovative tools, techniques and strategies, highly adoptive and customisable ERP systems can be designed and deployed at affordable costs and within reasonable timeframes.

INTRODUCTION

Enterprise systems [ES] in general and Enterprise Resource Planning systems [ERP]¹ in particular have become the most important enablers of business today. The emerging trend is that a number

of business enterprises as well as not-for-profit organisations like universities and hospitals--regardless of their size, market, products, services, industry, location--have now started looking at ERP as an effective facilitator of, and a powerful tool for, managing the organisation better. Most

of them believe that they can create and sustain cost and competitive advantages by adopting ERP. We must note here that even for universities, hospitals, NGO's, and charitable institutions running a variety of socially relevant programs, cost is a major concern and, with globalisation and opening of up of economies, competition real and important. Even small and medium size enterprises opt for [or would like to adopt] ERP more as a strategic initiative to combat competition than merely as part of information system. Consider, for example, the case of a small textile firm in Tiruppur, Tamil Nadu, India which had to go for on-line hook-up with the supply chain management system of Wall Mart, USA, in order to win and execute supply contract. (Surajeet Gupta, 2004)¹

However, when it comes to choosing and adopting an ERP most appropriate for the enterprise, the exercise is neither easy nor straight forward. A number of key questions and challenges arise when an enterprise considers adopting ES/ERP. Ranging from relevance, cost-benefit justification, appropriateness, to choice of source [licensing, renting, owning], architecture, designing, developing, and finally deploying the very system 'successfully', these questions and challenges are big and complex, and encompass a number of considerations and options in terms of 'economics', 'technology', 'human resource', 'organisational culture', and 'environmental issues'. Going by example is not feasible either, as published real life cases are limited in number and inconclusive on key issues, presenting more of successes and understandably less of failures. Even fewer are reported in detail about the experiences through--and more importantly the lessons learnt from--the Software/System Development Life Cycle [SDLC] phases and processes.

Given this scenario, it is no wonder that while the number of enterprises wishing to adopt ERP is growing, the rate of such adoption is not phenomenal. Major restraints appear to be in terms of high cost, long time, and uncertain benefits.

More specifically, enterprises hesitate to adopt ES/ERP because:

- of high total cost of ownership [TCO] and total cost of operations [TCOP]; let us call these and underlying factors collectively, the COST;
- of unduly long time to reach 'full adoption' stage; let us call these and related factors collectively, the TIME; and
- the anticipated benefits are not cognizable and realizable; let us call these and related factors collectively, the QUALITY.

In other words, concerns around three dimensions, viz., COST, TIME, and QUALITY [CTQ] seem to act as 'barriers' for enterprises adopting ERP. Of course, there are a number of other indirect factors as well, like 'people being not ready', 'business process re-engineering [BPR] not properly done' and so on. While 'people' and 'processes' are certainly important, we note that their impact gets reflected in CTQ [people not being ready delays adoption; delay costs time and money; bad processes cause delay and damage which in turn affect cost, time and quality]. Obviously, COST and TIME are more easily quantifiable than QUALITY.

While the foregoing illustrates issues from the enterprise perspective, there is an equally challenging and complex set of issues for the 'designer, developer, vendor' to consider and resolve. Some of the key questions and challenges here are:

- Why should ES/ERP [the software part] continue to be costly, even after several years of designing and developing [including re-designing] by a number of players in the field?
- What is happening on the 're-usability of code [components]', 'avoidance of re-inventing of the wheel' front, leading to reduction in cost/time for re-design and re-development?

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