Chapter XIII

Breaking Out of Lock-In:
Insights from Case Studies into Ways to Up the Value Ladder for Indian Software SMEs

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Abstract

Small and medium enterprises in the Indian software development industry, like their larger counterparts, are mostly low on the value ladder. This chapter examines the difficulties confronting them in moving up the ladder, and the strategies and circumstances conducive to success, drawing on three case studies. Human resource development emerges as central. Though SMEs have meager resources for moving up, compared to large firms, they have a greater incentive to do so—and this organizational interest accords with the interests and motivations of their employees for career development. It is found that the keys to success are to treat employees as co-investors in their own human capital, to form an effective "community of practice" across the firm, and to find market opportunities which "stretch" the firm in the right direction and to the right extent. For the last of these the main contri-

bution is made by existing clients, but an important role may be played by venture capitalists, particularly those which are U.S.-based.

Introduction

The Indian software industry today has over 7,000 firms operating domestically, of which about 90% are small and medium sized (i.e., less than 250 employees). It has seen dramatic growth during the last decade. The industry grew at a compound annual growth rate of over 50% from 1994-1999 and from 1999-2002 at over 26%. Its output has been forecast to exceed US$50 billion by 2008 (NASSCOM, 2002, 2003). While in 2003 SMEs accounted only for 10-15% of revenues, this share was forecast to grow to 50-60% by 2008 (NASSCOM, 2004). The growth of the industry has been heavily dependent on exports, particularly to the United States: total software and services exports rose from US$489 million in 1994-1995 to US$9.6 billion in 2002-2003. Indian firms have been operating mostly at the lower end of the software value ladder—programming/maintenance services—but even these have seen a switch from over 95% "body-shopping" in the early 1990s (NASSCOM, 1999)—work undertaken for clients at their site of operations—to "offshore" software development, where India has become dominant. A survey by Merrill Lynch (NASSCOM, 2002) predicted that the proportion of IT spending outsourced to India would increase from below 5% to over 15% in 2002-2004. The software exports increasingly include the output of the Indian operations of large consulting firms like IBM, Accenture, EDS, and CSC.

Indian firms have been trying to move up the software development value ladder (Figure 1). The activities that Indian firms are undertaking now vary from high value consulting, system integration, packaged software integration, and custom application development to low value legacy application management, maintenance,

Figure 1. The software value ladder (Adopted from Presentation by Nilekani (2001), Managing Director, Infosys Technologies, India, at the NASSCOM-IT Conference, 2001)
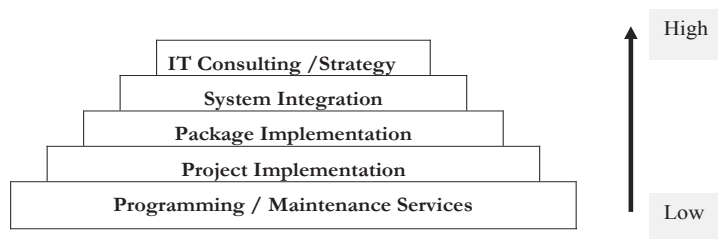
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