Building a globally competitive software industry: Where the problem lies

By A V Vedpuriswar[1]
Nagendra V Chowdary[2]

In recent times, the computer software industry has emerged as one of the star performers in an otherwise bleak economic scenario. Companies such as T.C.S., Infosys, Wipro and Satyam have been growing at an impressive rate. Indeed, so upbeat is the mood that the industry's leading association, Nasscom has projected Indian software exports of $80 billion[3] (Rs 35,000 crores) by 2008.

The phenomenal growth of the software industry has largely been due to private sector initiative, with little interference from the government. A joke going around is that the industry had grown too large by the time the government finished deliberations on what and how to regulate. Now of course, the government is waking up and politicians especially those from Karnataka and Andhra Pradesh openly express their support to the industry. Quite clearly, Indian politicians have realized that software is a milch cow.

Where then does the Indian software industry go from here? Most of our software companies have succeeded more due to fortuitous circumstances than anything else. An abundance of technically skilled manpower at 10-15% of the costs prevailing in the US and at a time when the US unemployment rate has been the lowest in the past three decades, has been the main reason for the Indian software boom. Now that the US economy is slowing down, alarm bells have naturally started ringing. To complicate matters, most Indian companies are still handling only low value adding jobs, with plum assignments such as consulting and framing specifications being done in the developed countries. In these price-sensitive segments, India faces a major threat from China, which has the potential to emerge as a cheaper development center than India. Unlike India, which has seen a sharp increase in wages, the Chinese authorities have kept wages in check. Indeed, if the Chinese can do something about their lack of familiarity with English, they can emerge as hot rivals, as their global success in the toy industry clearly demonstrates. So, what strategies can India adopt to consolidate the gains it has achieved so far?

A framework developed by Michael E. Porter is useful in this context. Porter has given a brilliant account of the reasons for the growing competitiveness of some countries and the declining competitiveness of others. He argues that the growing prosperity of a nation is largely dependent on the success of its companies in the global business environment. It is companies not governments which jostle for space in today's competitive markets. Consequently, nations should

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1 *A V Vedpuriswar is Dean, ITUC School of Management, an ICFAI affiliate.*
2 *Nagendra V Chowdary is a Faculty, ITUC School of Management ,an ICFAI affiliate.*
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focus on doing whatever is necessary to strengthen their companies and help them generate sustainable competitive advantages.

According to Porter four major factors influence a country's competitiveness. The first is its ability to develop and upgrade human resources and infrastructure. The second is its customers, how demanding they are. The third is the growth of related industries that together create a powerful cluster, which facilitates innovation through the exchange of cutting-edge ideas and thoughts. The fourth is the structure of the domestic industry in general and the intensity of rivalry among the various players, in particular.

Let us see how the Indian software industry measures up on the four factors listed by Porter. What have been our efforts to upgrade human resources? The answer is, precious little. Indeed, the training offered by many of our technical institutions is so pathetic that many foreign clients have started complaining about the quality of Indian manpower. Except for the IITs, RECs and some of the larger corporates like Satyam, TCS and Infosys, a serious commitment to high quality training of manpower is totally lacking. Many Hyderabad based software companies have even been known to collect money from trainees who are looking for project experience!

About infrastructure, the less said the better. At a time, when countries like Singapore have made tremendous strides in creating a ‘wired’ society through a broadband network, our government has done precious little. Internet connectivity during the daytime is still painfully slow. In many leading software centers including Bangalore, the roads need considerable improvement. As for the availability of power, the less said the better.

Most global companies evolve out of years of experience in serving demanding customers at home. Matsushita and Sony are today world leaders in the consumer electronics industry, thanks to their ability to meet the demands of quality conscious Japanese customers. Italian fashion goods companies have perfected their skills, serving some of the most sophisticated customers in their own country. The US is the home of most leading software companies, thanks to its demanding customers. What about India? Software piracy and gross infringement of intellectual property rights cripple our software market. No leading Indian software company generates even 10% of its revenues at home. And few have any serious plans of expanding the domestic market. Indeed, the export drive of our software companies has been more opportunistic rather than the result of any great global vision.

A cluster of related industries goes a long way in generating sustainable competitive advantages. In Silicon Valley, the world’s leading center of information technology, hardware and software companies have complemented each other. Unfortunately in India, we neither have a large base of indigenous hardware manufacturers nor consulting companies. Contrast this with a small country like Taiwan which has an impressive list of global leaders in hardware items such as desk top scanners, mouses, motherboards, monitors and modems. Taiwan's recent attempts to develop software capabilities rest on a much more solid foundation.

One good feature of the Indian software industry is the presence of a large number of companies instead of a few big monoliths. Unfortunately, this has not generated any intense rivalry, as Indian companies sell very little software in the domestic market. And in the global markets, the cake has been large enough to accommodate all the players. So, companies have focussed on occupying their own segment rather than fighting with each other.

Though Indian companies are making noises about moving into more value adding segments, the reality seems to be far removed from their intentions. According to Partha Iyengar, Country Manager, Gartner Group[4], "Most Indian software companies are perceived as application development companies, not consulting or e-business ones. That is why they find it so difficult to move up the value chain. There is too much complacency in the industry." Iyengar's views have been shared by Sandeep Dhingra, Director, Jardine Fleming[5]: "Indian software companies seem to have no intention of moving up the value chain. There's no reason for them to. They have certain skill sets that are being put to use in services. Besides, the profits are super normal." Another senior executive, Ravi Sangal of IDC has gone even further[6]: "The numbers suggest that revenues from body shopping are coming down, but many still do it."

In a nutshell, Indian software companies have succeeded so far because of favorable circumstances, not because of any coherent strategy. What then should they do to generate long term competitive advantages? Instead of paying obeisance to the government and lobbying for tax concessions, which will only yield short-term benefits, the industry should lobby for improvements in the infrastructure, particularly bandwidth. While Nasscom has already made a beginning in this regard, much more needs to be done. The industry would also do well to get government investments into clusters such as Bangalore, Noida, Pune, Bombay, Madras and Hyderabad instead of spreading resources too thin.The industry should also work with the government to put in place a rigorous intellectual property protection regime. Notwithstanding the best efforts of Nasscom, it is a well-known fact that software piracy is rampant in our country. Under such circumstances, no meaningful software marketing or development can take place in India.

4, 5, 6 : Business Today, August 7-21, 2000

Generating sophisticated domestic demand in India is going to be a fairly long drawn out effort, even if intense efforts are made. In the interim, Indian companies have no option but to set up full-fledged development centers in the US and other important countries such as Japan. This will expose them to smart customers and give them opportunities to work on cutting edge technologies. Labour cost arbitrage can never be a sustainable competitive advantage, as the threat from China amply demonstrates. Indian companies will need to invest heavily in both development and brand building in locations close to customers. The risk involved in such investments will be much greater than in the past. Indeed, Indian software companies have miles to go before they can claim to have truly arrived.

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