

Making up for IT's lost decade

By Athar Osama

ONE question that is often raised among Pakistani IT/software entrepreneurs, investors, and policymakers alike is whether or not and to what extent does Pakistan today represents a dynamic industry that is similar to India's from a decade ago?

This is a perfectly legitimate concern for those aspiring to follow the example of Indian software industry and replicate it at home. And it is, by no means, an unworthy goal to seek. Last year alone, India exported over \$17 billion worth of IT/ITES/BPO services to the world.

Pakistan's software industry appears to be relatively small in terms of manpower and employment. The PSEB Best Practices study puts the total employment at 60 of the most prominent (and larger) firms that it surveyed at around 5000 people.

Another internal PSEB study whose results were shared with this writer puts the entire software industry size at around 8000 people. Even if one adds a tentative number of another 10,000 or so people who are involved in various kinds of ITES/BPO operations (e.g. call-centres) in the mix, the total industry size is certainly not more than 20-25,000 people.

This makes the Pakistani software industry today around half to a third of the size of India's software industry in 1995. While it would be a mistake to read too much into these figures primarily because of their suspect credibility and lack of rigour, the broader trend is unmistakable. Industries in both countries developed primarily in the shadow of their hardware counterparts, albeit with a lag of a few years. Although the Indian governments early policies towards computer industry (and hardware in particular) was much more restrictive than that in Pakistan, the two industries share a strikingly similar pattern of evolutionary trajectory. Striking similarities are also evident in the target setting process, the product-services mix, and the early quality dilemmas etc. In addition to the above similarities, there are several significant differences too.

First, the degree of concentration in the Pakistani software industry is much less than that in India's. There are no Tatas or Wipros in Pakistan. The ratio of revenues between the most successful and the median firm in Pakistan is around 1:100 against 1:2000 in India. In Pakistan, as against India, we find very little involvement of the country's large business houses in the software industry.

Not that Pakistani business houses have not ventured into software but they have failed to create sustainable software businesses. While the reasons for this fact may be debatable, the trend itself is undeniable. Second, Pakistan has never been seriously considered by multinational software firms as a software development hub for their activities. This is in contrast to the early recognition of India's potential by multinationals that gave a certain boost to the Indian software industry.

Third, Pakistan has seriously suffered (and continues to do so) from a weak human resource pipeline, both in terms of quality and quantity of its product. This, to our mind, is the single most important hindrance in the development of Pakistan's software industry and the key differentiator between where it stands today vs. where India's software industry stood a decade from now.

For India, a blessing in disguise was the departure of IBM in 1978 that left India with 1,200 unemployed ex-IBM employees, many of whom quickly opened up small software operations and computer bureaux (operations that leased out computing capacity to firms in need of that resource). In 1980, Indian software companies exported \$4 million worth of software. The exports touched \$100 million mark in 1989/90 and stood at around \$500 million in 1994/95. Throughout the 1981-1994/95 timeframe, the United States represented the single largest market for Indian software averaging around 60-65 percent of the total exports.

One observer estimates, based on very narrow market segmentation, reveals that India took about 20 per cent of the foreign opportunity for internationally subcontracted software services in mid-1990s. It, however, only represented 0.15 per cent the total world computer services and software market and 1.7 per cent of the total US market in 1994/95.

While these figures represent a minuscule portion of the overall US software market and even India's total exports, they, nonetheless, reflect the strong Above-average growth of the software sector in India.

While it is hard to imagine how the Indian software industry might have evolved had there been no IITs or had they not practiced and perfected bodyshopping, the fact remains that these events did happen, either consciously or unconsciously, and changed the face of the Indian software industry.

They also probably set it apart from the Pakistani software industry and essentially gave India the headstart, and a decisive first-mover advantage that it enjoys till this day, not only over Pakistan but also the rest of the world. Did the decade of the 1990s, the one that Joseph Stiglitz describes as the roaring nineties, constitute a lost decade for Pakistan's software industry? In many ways the above analysis provides inkling into a possible answer to that question.

Having started at pretty much the same time (mid 1970s) and progressed in similar fashion, Pakistan's software industry of today stands, like shadow of a much larger and well-recognized Indian behemoth, but it is very similar to what India was in 1995.

What does it all mean for Pakistan's software industry, and that of other countries at similar level of development and facing competition from India?

Would Pakistan's software industry, having lost the opportunity by a decade, continue to grow in the manner similar to India? Does the above analysis point towards a future where much of the disparity between India and Pakistan might be bridged someday? These are not easy questions for any industry analyst to answer.

There are several trends and counter-trends that point to different outcomes and development trajectories for the players in question. What is quite clear to even the most cursory of the observers, however, is that the IT/software industry worldwide is now entering a phase of maturity after the crazy nineties. Not only have the investors who lost big time in the dotcom revolution (if there was ever one, they are also now more intelligent about investing in IT as are corporate and individual users (e.g. CIOs) and entrepreneurs.

Many of the trends that accentuated India's emergence on the world software scene (e.g. the internet bubble, the millennium bug, and bodyshopping etc.) are perhaps a thing of the past, never to be repeated again, not at least in the manner in which their confluence led to the dotcom bubble and its burst. There are some counter-forces and mitigating factors as well. Firstly, the India of today is not India of the early 1990s. With somewhere between half-a-million to a million people already engaged in IT/ITES area, India is suffering from a huge strain on its HR and infrastructure capacity. The costs of setting up businesses and hiring talented programmers and managers are increasing by the day.

The trends are so strong that government and private sector have been forced to look beyond the traditional Indian IT/ITES destinations like Bangalore etc. for software talent. Secondly, the Indian government recently revoked the tax holiday on offshore operations of foreign software companies operating in India.

The 35 per cent additional cost is likely to hugely affect the cost-benefit calculations of foreign companies who have long viewed India as a cheap development centre.

Many industry observers, among them Anthony Mitchell of International.net who has long helped US companies outsource to India, view this as the single most significant action that has suddenly put other countries, like Pakistan, in the run for the big time.

While India has successfully milked its early-mover-advantage for years, there might be some late-mover-advantages up for grabs too. Pakistan, and other countries, might benefit from tremendous know-how and experience that has been generated as a result of a decade of experimentation that has gone into the Indian software industry and strategically place themselves in a well-defined and less competitive niche. This would,

however, require business acumen and innovation so as not to follow the pack but rather innovate from a market-offering and organizational standpoint. Looking at things as they stand today, one can probably make a fairly credible guess of the fact that Pakistan's software industry would not have the luxury of learning-by-doing at the client's premises as India had in the form of body shopping in mid-to-late 1990s.

But could there be something else? One of the very important lessons that one can take away from India's success story is the virtue of being prepared to capitalize on opportunities rather than actually seeking the next big thing, a lesson often lost on the Pakistani policymakers and business leaders alike.

When India's political leaders laid the foundation of a well-functioning tertiary education system in 1950s, they certainly did not have the current IT revolution in mind. IT had not even been invented in India at that time. Yet, by creating quality human resources, scientists, engineers, managers, and policymakers, they positioned India as a country that could capitalize on an opportunity as and when it arose. That's precisely what happened in early 1990s.

The public policy lesson, for Pakistan and its likes, is to emphasize on long-term foundational investments in infrastructure, international goodwill, and human resources so as to quickly position themselves for the next big thing, as and when it becomes apparent what that is going to be.

Till that happens, Pakistani software professionals, business leaders, and policymakers must approach the strategic and policy-environmental challenges identified in the PSEB Best Practices study to forge ahead against formidable reputational and capability-based entry barriers.

As many who toil for the cherished goal have discovered, it will certainly not be a walk-over that many naively expected in early 1990s, but rather a long and hard slog. But, in the end, it might be one well worth all the effort.

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