

SUSTAINING GROWTH IN INDIA'S IT INDUSTRY

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With the mayhem in the global financial sector over the past few months and the consequent turmoil in the global economy including India, doubts are being raised about sustainability hereafter of the remarkable growth rates that the Indian IT industry has been experiencing in the past several years. How will the US slowdown affect India's IT companies? Will Indian IT companies need to resort to layoffs? Will they slow down hiring? What kind of growth rates will they have now? If the IT industry slows down, how will it affect India's fast-growing economy? Is India's famed march towards becoming one of the world's three largest economies, suddenly in danger?

These are some of the questions that are already worrying people in India. These and similar questions are naturally expected -- after all, the Indian IT industry's business model is mostly based on providing software development services to the best-known companies in the developed world -- the US, Europe, Japan, Korea, etc., so when the financial industry in the US and Europe seems to be in dire straits, the economies of those countries are also expected to suffer in their wake casting a shadow over the future growth of the Indian IT industry. Consequently, many are asking what India's IT industry can do in order to protect itself from such upheavals in the global economy.

Real Question

The real question to ask, however, is how much longer should India's IT industry be so heavily dependent on, and satisfied with, providing software development services to such global multinationals?

Let's examine this question in some detail. Many of our IT companies today provide software services to the large multinational corporations from different countries, helping to improve the productivity and profitability of those companies and their respective countries. Regrettably, however, little attention is paid to improving the profitability and productivity of our own country. For instance, while the Indian IT industry recorded export earnings of around \$40 billion in the latest fiscal year ending in March 2008, the greater percentage (by far) of the domestic Indian IT spend of \$24 billion in the same year, accrued to multinational IT companies! Moreover, the productivity in the Indian IT industry, comprising over 2 million professionals, is only about \$ 20,000 per person per year, while that of Israel, for example, is over \$ 300,000 per person per year! Imagine the contribution of the Indian IT industry to the national GDP, with a 15x productivity compared to the

present -- over \$ 600 billion, which would be over thirty-eight percent of the national GDP that would itself be greater by over fifty percent of what it is today! Far-fetched? Perhaps, but the true potential definitely lies somewhere in-between, closer to \$600 billion than \$ 40 billion.

Myths

However, to realize this true potential, we need a change of mindset, and explode two major myths:

The first myth is that India is already an IT superpower. If anything, it is an IT *services* superpower. However, continuing focus on this superb capability developed over the past twenty years or so, without initiating active efforts in creating our own intellectual property (IP), we cannot expect to ever be an IT superpower.

The second myth is that “IT” means software, whereas IT – Information Technology – encompasses both software and hardware. Therefore, to be an IT superpower, we (as a country) need to assume leadership positions in both hardware and software, and not limit ourselves to software development services. Obviously, this implies that our IT companies in both domains – hardware and software – need to attain leadership positions.

So how do we get there? We need to switch strategy, defocus from drudgery and grunt-work, learn to address creation of Intellectual Property (IP) and develop innovative products and services. There couldn't be a better time to make this strategy switch than now. Some may ask, if global markets are reeling, and might cut down on IT services spend, how can we expect any market to buy our innovative products and services? The answer lies in the old saying that if you offer a product or service that users need, they will buy it.

Time to be Unconventional

The trick may be to address an unconventional market -- India! The domestic Indian market (for both IT products and services) is growing, and growing rapidly, as the potential of IT in improving India's productivity and profitability remains largely untapped. This situation is akin to the old story about the late Mr. Thomas Bata's two sales scouts many years ago, before the Bata Shoe Company entered the Indian market, when both the scouts sent independent but diametrically opposite reports. One said that there was no market for shoes in India since nobody wore shoes, while the other said that the market potential was huge because nobody wore shoes!

India's IT companies must now grab the opportunity. Fortunately, they have the programming skills, the systems analysis and design skills and the project management skills, having acquired all these over the years by providing software development services to companies all around the globe. Likewise, Indian IT hardware companies have acquired component sourcing, volume manufacturing, quality control, marketing, selling, and field support skills, over the years. These

must now be leveraged to move from assembling and selling products based on imported technology, to products created anew, indigenously. For far too long, India's manufacturing activity has, by and large, limited itself to low value-addition. We must now move to a new era of higher value addition, which can only come from R&D and innovation, generating our own IP. And what better way to add value than think of products needed in our own domestic market?

What remains, therefore, is to figure out what India's needs are, and to develop what consequently are the appropriate innovative solutions for those needs -- *Uniquely Indian Solutions for Uniquely Indian Needs*.

Can we Innovate?

Again, there may be self-doubts: are we creative enough? *Can we innovate?* Do we have the financial resources and strength to undertake development of innovative products? What if the creative new products or services we develop, fail in the market?

The simple fact is that innovation and creativity are not the exclusive domains of any country or of multinational companies. There are many examples of Indian innovation, in both IT and non-IT sectors. We simply need to have faith in our own ability to innovate, to be creative. Admittedly, the path of innovation and creativity is fraught with risks, and no one can guarantee success for any new product or service. A spirit of adventure, coupled with patience and perseverance, would definitely be the order of the day, for no risk means no reward and no pain means no gain.

Yet, some products or services will fail. That, however, should not deter our companies from trying again. Each failure should be analysed for its lesson(s), and those lessons must be learnt for the next time around. Each such attempt will help take our companies closer to success. Each success will definitely make up for several other failures. Of course, each failure does burn a hole in the pocket, and therefore it is important to first do one's homework (to determine what product or service is likely to succeed), and then still be prepared for the worst. Admittedly, this may not be every company's cup of tea, but the more of our companies attempt this, the more of them will succeed, and the greater the chance of Indian IT industry achieving success in the innovation space, which in turn will help raise its overall productivity.

Speaking of failure, it is worthwhile recalling George Bernard Shaw's words: "People are always blaming their circumstances for what they are. I don't believe in circumstances. The people who get on in this world are the people who get up and look for the circumstances they want, and, if they can't find them, make them."

Protecting against Failure

Similarly, one possible way to raise the probability of success of a product or service, is to strike a marketing alliance with another company that may have already experienced success in marketing of products or services, and one that therefore has both finances and reach. Clearly, this implies that the innovator company will make less profit as a percentage of sales, but that may be offset by the success of the product in the market and the resultant volume of sales.

Another way to ensure success may be to form a consortium of synergistic companies that may have specialist expertise or experience related to different components or subsystems of a particular new product to be developed, or different aspects of a new service being developed. This way, companies may hedge their bets and spread the risk of development and marketing of a new product or service.

Positive Factors

There are three important factors that present themselves today, which would facilitate making of appropriate choices as to which products or services need to be developed:

First, the domestic Indian market has come into its own, with a reasonable size of demand for almost any product or service. It is therefore possible for new products or services to be tested in the domestic market, without worrying about the inadequacy of the market size as in the past, ironing out any shortcomings, and then taking that product or service to the rest of the world.

Second, since India is part of the so-called third world, almost any product or service designed for the Indian market, is sure to be usable/applicable in the rest of the third world, which is almost three-fourths of the world. It is not rocket science to extend this to the whole world, as many products or services that are applicable to the third world, could also be applicable to the first world. Consequently, by developing products or services for the domestic Indian market, our IT industry can expect to find additional markets in the rest of the world, too.

Third, *affordability* is a crucial factor for success in the Indian market, and fortunately our development costs in India are far lower than in the rest of the world. Therefore our IT industry may actually be able to turn the current global meltdown into an opportunity, by extending the previous argument further, and making affordable products and services available to the Indian market, and thereby to the whole world. The “bottom of the pyramid” offers a huge potential and myriad opportunities for new products and services. However, unless we wake up, as a foreign visitor recently remarked, the huge potential that has always been there will continue to be only a huge potential! We just need to be alert to spot these opportunities, and to think laterally, think outside the box, in order to create the appropriate products, solutions, and services for this hitherto unaddressed market.

We may at this point recall those famous words of the German philosopher, Arthur Schopenhauer: “The task is not so much to see what no one has yet seen, but to think what no one has yet thought about that which everyone sees.”

Uniquely Indian Solutions for Uniquely Indian Needs

Uniquely Indian Solutions for Uniquely Indian Needs would fit the above description very well, and hold the key to sustaining growth in India's IT industry. A very good example is microfinance. Nobel laureate Prof. Mohd. Yunus' idea has taken firm root in India, and the Indian experiment in microfinance has already become eminently successful -- in no small measure owing to the use of appropriate information technology (which still holds a huge potential in this area, by any stretch of the imagination). Many other countries, especially those that have tried microfinance projects but failed, are keenly observing the Indian microfinance experiment, and it would therefore be easy for our IT companies to take working solutions from here to those countries.

Another interesting example of a *Uniquely Indian Solution for a Uniquely Indian Need* is the ubiquitous STD/ISD/PCO booth. Such a product had not existed before it was developed in India to address the need of a real-time monitoring device, for the purpose of billing of telephone calls made by a caller from the telephone line in such a booth. This opportunity arose when the Indian Telegraph Act of 1885 was amended by the Indian government about twenty years ago, to permit renting of time on the telephone line allotted to an individual. The development of such a monitoring-device “black box” by a handful of small Indian companies, opened the floodgates for STD/ISD/PCO booths to mushroom and spread into every nook and corner of India. Indeed, this single act could arguably be called the harbinger of the telecom revolution that has swept India and has already catapulted India into a leading position in the telecom services domain. What’s more, these little monitoring devices are now seen in many other developing countries, thus proving the claim earlier made herein, that any new product or service that is applicable in India, would also be applicable, at the very least, in other countries of the third world.

Information

One of the important needs of the “bottom of the pyramid,” is information. Any hardware or software product or service that helps people to obtain information relevant to their context or needs, at an affordable cost, as well as in the local language, is bound to succeed. However, we must keep in mind that information is a perishable commodity, and is valuable only if presented at the right time, i.e., when it is required.

Yet another example of the *Uniquely Indian Solution* idea is a Tamil-language Point of Sale (PoS) device developed by a leading Chennai-based company, which not only facilitates its use by small traders who do not know any other language than

Tamil, to keep track of their sales and inventory, as well as print invoices/receipts in Tamil, but also keep their accounts using the traditional accounting system of the traders. It's a no-brainer, then, that this device found instant acceptance in the market.

Local Language

Therein lies one of the keys to market success as a *Uniquely Indian Solution for a Uniquely Indian need* – local language. Since only five percent of Indians know or have familiarity with the English language, the other 95 percent are a huge market waiting to be tapped, if only our IT companies would develop hardware and software products to cater to each of the languages of this vast majority.

Challenges

That key – language – is also one of several other challenges, including cost, to creating products for the “bottom of the pyramid.” Some of the other challenges are environment (dust, heat), unavailability or unreliability of mains power, availability of communications connectivity, simplicity, ease of use, timeliness, personalization, security of information and local culture. For instance, in most of rural India, women avoid visiting public places, if they can help it, so if information has to be delivered to them, it is best delivered at their doorsteps. Literacy (or the lack of it) could be yet another challenge and a common mistake that many of us make is equating literacy with intelligence, meaning that an illiterate person is not credited with a high IQ. Consequently, we don't give much credit to our rural brethren for their intelligence. There are so many people in our rural areas who don't know how to read or write, but can use a mobile phone very effectively, not only to make calls, but to even get certain types of information (such as cricket scores or market prices), by learning from others. Developers of products and services for the “bottom of the pyramid” market will do well to keep these challenges and issues in mind when designing their offerings.

Application Domains

Many other areas are fertile grounds for new hardware and software products and services. Healthcare (including solutions for the Primary Healthcare Centres, healthcare workers, disease surveillance, etc.), eGovernance (including municipal bodies and local self-government – *Panchayats*), financial inclusion (including mobile and doorstep banking), entertainment, logistics, enterprise field-force automation, etc., are representative of the thousands of application areas that are begging for the “right” solutions.

Industry-Institute Interaction

So how do our IT companies go about the task of identifying and then satisfying the multitude of needs in the domestic market? A good idea would be to seek active and regular interaction with academic institutions of repute. The first

benefit of such interaction could be assistance in identifying specific needs and opportunities, for instance, through market research done by students of good business schools. Senior faculty at such schools could help with devising the market research methodology as well as the analytical techniques to draw conclusions from the market research data.

Once specific market needs and opportunities have been identified, interactions with technological institutions will help identify the technology requirements for developing the products/solutions for the identified needs and opportunities. The companies may then decide which of the technologies they already possess expertise in, and which technologies the institution(s) are better able to contribute through the senior faculty as well as through students.

Thus, Industry-Institute interaction would be an important ingredient in helping India's IT industry in its quest for innovation which in turn will help sustain its growth.

Finance is the next ingredient, but its role is often over-emphasized. The prime goal should be to first decide on the innovative products or services to be developed and to commit the organization to developing the same. It would then be a simple matter to find the resources required. In Mahatma Gandhi's words, "Find purpose; the means will follow." Once you know what you wish to develop, you will be able to estimate what would be the costs involved, and then would be able to figure out innovative ways of finding the required resources to support the development effort.

There are, of course, ways that the government could help make the industry adopt innovation for growth, but that is another topic, and may be dealt with separately.

Most Important Ingredients

The most important elements of the Indian IT industry's quest for sustainability of growth in future, however, are three that have already been mentioned elsewhere above – commitment (to innovation), patience, and perseverance. Far too often, far too many organizations throw in the towel far too early in the life of far too many development projects. Initial failures are simply that – mere initial failures. The Indian Space Research Organization did not give up in the face of initial failures while building up its capability to launch satellites, and by the time this article appears in print, will have launched its Moon mission! Likewise, our companies must learn to not be discouraged themselves or discourage their employees when there may be some initial failures, but on the contrary, should learn to encourage them to carry on to eventual success. Despite everyone's best efforts, though, some projects might ultimately fail; that should not however lead companies to stray from the path of innovation. Having made that effort, though, will have

injected a new spirit of creativity in the organization, which will stand in good stead over the long run.

New Mindset

In today's context, it is especially important that Indian IT companies adopt Innovation as their corporate strategy and policy, for the biggest risk they face is in doing nothing. In the words of Wayne Gretzky, a well-known Canadian ice-hockey player, "You miss 100% of the shots you don't take." Even if some of your efforts at innovation may fail, having made those efforts, you will have injected a new spirit of creativity in the organization, which will stand you in good stead over the long run.

In conclusion, let us all, in India's IT industry, adopt for each of our companies the following beautiful words that had appeared as a full-page unsigned advertisement in The New York Times, several years ago:

AIM SO HIGH, YOU WILL NEVER BE BORED

The greatest waste of our natural resources is the number of people who never achieve their potential.

Get out of that slow lane. Shift into the fast lane.

If you think you can't, you won't. If you think you can, there is a good chance you will. Even making the effort will make you feel like a new person.

Reputations are made by searching for things that can't be done, and doing them.

Aim low: boring

Aim high: soaring!

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