How to Tap ERP’s Hidden Potential in India?

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ABSTRACT
Enterprise resource planning (ERP) systems, today, are considered to be “the price of entry for running a business. The Indian market is seeing a lot of ERP activity at present, with public sector units (PSUs) being seen as the next big market. All the leading industrial houses are getting their act together for ERP implementation. ERPs constitute a fast growing segment of industry and are implemented across the board and not just in profit driven Business Corporation. The Indian states have different levels of maturity in terms of ERP through E-business. Naturally, the digital divide is more prominent in states that are high in e-governance. India’s challenge is twofold – uplifting all the states to a minimum level of e-governance and employ e-inclusion techniques to bring in “digital business democracy”. However, the ability of a government to transform itself in ERP arena will decide the fate of e-governance in India.

This research paper is intended for mid- to senior-level IT and business leaders from all government and private sectors in India who need to get better information in order to take more informed decisions about ERP implementation, its structured evaluation criteria, as well as the actual required criteria and suggests guidelines for successfully carrying it out, against all odds.

KEYWORDS

INTRODUCTION
The Indian ERP market is around 1600 crores and growing at a healthy 35 percent annual growth. Today several organizations need to implement ERP which emphasizes constant change and reassessment of organizational processes and strategic vendor alliances. Processes are standardized but they are not static. Unlike the legacy systems that inhibit making changes, regular ERP updates force change on already dynamic organizations. The real difficulty in implementing an ERP isn’t because it’s a new system or because it means making changes. The challenge is that it instills discipline into an undisciplined organization. And while it helps the organization as a whole, employees don’t necessarily see this cultural change as an improvement[1][11].

Like majority of the developing countries, India should get ready itself to face a vital challenge of reaching out to its local as well as global economy, with all the offerings of technological revolution, for ushering in Digital Business Advancement era. This “Business Transformation” is possible only through the optimal usage of Intelligent Business Models in Latest Versions of ERP (Enterprise Resource Planning) System [2][3]. ERP, as the very name implies, affects the entire enterprise. The Key strength of ERP is INTEGRATION. It integrates all the functions of an organization. The success of ERP also hinges on its synergy between technology and management. ERP software not only uses cutting edge technology but also embeds the best of the breed management practices from the leading edge companies such as Intel, Compaq, Microsoft, GM, Philips, AT&T, ONGC, RIL, DCM Shriram, Mahindra and Ranbaxy etc.

There have been some weak spots in ERP implementation that have not only stunted its large-scale rollout but also in a way defeated the purpose for which it was intended[4]. The prime factors that have contributed to slow penetration of ERP in India (with their solutions) are:

➢ Myopic Perception: “E-business is for Classes, Not for Masses” is a general feeling. Unfortunately, these systems address only a top and small portion of business activities. It’s the people at the bottom of the pyramid that it should target. In India where 70% of population still resides in village with obsolete technology, mere thinking of ERP is a daredevil act.

Thus ERP technologies have to move beyond the urban and hip image. It should also examine the quality, usefulness and relevance of the information and services and the willingness of the nation to involve citizens in public using e-information, e-consultation and e-decision making. This will certainly lead to better business environment through an optimal combination of ERP system with sound e-government policies.

➢ Population Explosion: Every sixth person living on this earth is an Indian. The total population added every year in India is equal to the total population of Australia. Believe it or not, uncontrolled population growth often leads to lack of basic amenities and infrastructure. Electricity, water, roads, accessibility and above all highly skilled persons have a role to play in the overall success of E-business. This coupled
with Low Tele-density and even Lower PC Penetration are issues of real concerns that needs to be addressed before we can even think of moving a step further.

After addressing the current scenario in infrastructure with relation to population, the government should come up with financially, technically and operationally viable propositions for infrastructure development, e.g., village-level Kiosks for mass participation of rural people. But all its success very much depends upon effective and realistic population policy.

- **Ineffectiveness of Political System:** Barring few examples, political system in India by and large is crippled with ignorance, illiteracy, casteism and lack of will, transparency and accountability in the business of government. They have little interest in understanding and implementing new technology. Most e-business projects initiated at the department/government level fail to take into consideration due to deep-rooted corruption. The system of multiple hierarchy and red tapism has to give the way to system based on transparency and efficiency.

The solution lies in the endeavors and developing robust models for opportunities upon which public-private partnership with ERP set up could survive and thrive. Governments have to examine and review their development strategies in order to promote knowledge management. Besides this, on urgent basis, the government needs to train govt. leaders, mangers and administrators in planning and managing computerized IT & ERP solution across all public sectors.

- **Wide Spread Illiteracy:** This is a special & very serious problem for India. It is a shame that we continue to suffer from large-scale illiteracy. Invariably many of the illiterates also suffer from poverty. These two problems can create violent scenes for the country and deserve to be tackled with war-footing, but they may not slow down e-commerce in India.

Very often illiteracy in India is often confused with English illiteracy; most computing & communication devices were inaccessible to non-English literate population of India. Luckily most Indians have a "nodding" acquaintance with English that is good enough to access Internet devices. Thanks to GUI, Indian script support from Microsoft, IBM, Oracle, Apple and even Cell phone vendors and Palmtop vendors (all using Unicode), interfaces using English alone may become the thing of the past. Secondly, Internet itself can be used to impart literacy using very innovative means - there are many unusual examples from Sri Lanka, African countries & South American countries. TCS apparently is toying with one such idea. S.Kumar's.com experiment of 50,000 Internet Kiosks all over rural India could significantly help; if used imaginatively, the Kiosks can be used to address the problem of illiteracy in India.

We do hope that similar experiments start in India too. Once again my faith in the younger generation and the unusual success of Grameen Bank type experiments in Bangladesh, convinces me that illiteracy too may not be able to stop e-commerce from taking off in a big way in India.

- **Cost of ERP:** Though ERP is out of reach for most of the Indian company, the cost of ERP software should not be viewed as an expense alone. Rather, it is an investment towards better profitability, market share or customer services. ERP decisions are a ‘High-Risk High-Reward’ decision. The view that ERP is expensive only takes into account the risks but not the rewards.

- **Level of Computerization:** Though computerization is gradually happening at central levels, in most states of India, archaic system of physical documentation, obsolete age-old techniques at manufacturing level still dominate. Till now, only about 6% of government bodies are computerized. Till the time governments move towards technology-oriented methods, we can’t make a shift towards ERP related issues. This is, in fact, a big gap that needs to be addressed without any delay. Since India is passing through a phase of high growth in IT, without true empowerment of an average Indian, this growth curve will create a skew leading to imbalances and economical, social instability. We must understand that in technology, lays the key for true empowerment.

- **Lack of Internet Infrastructure:** It is true that Internet access is still very expensive and the access device is primarily a PC which most Indians cannot afford. The PC penetration of about 1.5 per thousand and phone penetration is in the range of 10 per thousand do not augur well for e-commerce and ERP to take off. But we should also note that India has some unusual ways of doing business too. While PC stands for Personal Computer elsewhere, in India it represents a Public computer. Most of the studies on Internet usage go by the ID’s given by ISP’s such as VSNL, Satyam and Mantra Online; they miss the point that there are hundreds of Internet kiosks in India and hundred thousands of Free e-mail accounts! While by no means we underestimate the need to scale Internet penetration into the heart of India, one need not be overly pessimistic either [4][8].

The ISP Policy of November 1998 is truly a historic policy. What took VSNL three years (Aug 95 to Nov 98) to grow user population to 100,000 Satyam & Mantra each could do the same number in roughly in one year. The other silver lining is the phenomenal growth of Cable TV during 1994-99 to a staggering 40 million - which is three times that of phone lines (DoT took 100 years to grow this many users). With other non-PC devices including cable modem, cell phones, Palm Tops becoming browsing devices and the World Tel in Tamil Nadu (led by Sam Pitroda) and Reliance
in Karnataka starting tens of thousands of Internet Kiosks all over the country, the perceived poor Internet Infrastructure may not be able to stop the e-commerce. With mobile computing around the corner and the unusual ways of using mobile devices in India, tremendous investments in backbone fiber optic network (plans to add 1 Million miles of fiber by Public Sector (Railways, DoT, Power Grid) and Private Sector (Enron, Reliance, BPL) and the possible commissioning by year 2001 of under-sea cable link between Chennai and Singapore, the bandwidth problem is likely to ease too. For a change, Government has also removed VSNL monopoly in Internet Gateway. This too should help the growth of Internet infrastructure along with modern business scenario in India.

Security Problems Associated with Net Transactions: It is indeed a serious problem & cannot be taken lightly, but one should not forget that security is more a "mindset" problem than a real problem. The younger generation once again, does not seem to have such serious problems with credit cards, ATM cards or buying on the Net. Otherwise one cannot explain the brisk sales over Rediff site or Fbmart site within a year of their operation. It may be recalled that even in the United States where an average American citizen owns more than three credit cards, one third of the transactions (by numbers & not by value) even as late as 1998 was in cash - once again emphasizing the "mindset problem" rather than risks associated with new forms of money[5][6].

As long as people find "value" (it may be convenience, speed or lower transaction cost) they will switch to Net based transactions - particularly those who do not have "mindset" problem. With significant population of Indians being young, one can re-assure that e-commerce with ERP will take off in spite of security problems.

Legal Incompetence: In a domain where six months is equivalent to a year, our base line for legal issue is still the IT Act, 2000. Globally technology governance initiatives are always preceded with radical legal reforms in order to provide a conducive environment for better e-commerce[7]. The specific ERP software that has been adapted to suit to Indian statutory laws is called India-specific ERP. It also necessitates development of comprehensive regulatory and legal frameworks within which Indian Computerized Business Technology can perform e.g. E-commerce, Anti-Cyber-Crime Enforcement, Digital Contracts, Online Intellectual Property and Copyright Protection, approaches to Internet Taxation and Fees, adoption of International Online Standards etc[8][9].

Local Language Enabling: India is a vast country with 16 official languages. This diversity becomes extremely complex if one needs to build an infrastructure based on common standards. The huge task involves the participation of both the private as well as the public sector.

Thus ERP software must address all the enterprise needs of an organization within the social context in which the enterprise operates. This would imply that the local account practices, locally applicable taxation laws (excise, customs, sales tax and income tax) are full adhered to in implementing the various business processes. The software vendor must incorporate India specific features before selling the software. Business environment has today been extremely competitive in most part of the world.

GETTING THE IMPLEMENTATION RIGHT: TAKE ERP PROJECT EVALUATION CENTRE SERVICES
To remove all these major hurdles experienced by organization, while implementing enterprise applications, companies must use the valuable services of Enterprise Resource Planning Evaluation Center at the very early stage[9][10]. As it helps to:

- Determine the right type of ERP system for one’s enterprise, within the industry.
- Examine how each solution addresses one’s management requirements. Some systems, for example, do not offer specific modules while others are exhaustive in their functional scope.
- Designate crucial operating criteria that any solution must meet to be viable for one’s environment.
- Analyze each solution's capacity to support one's company's growth and operations, over time.

MANAGERIAL IMPLICATIONS IN CURRENT INDIAN BUSINESS SCENERIO
It can be observed that the most critical part of the ERP implementation project occurs early in the chain of event, in the selection of the software package itself and in the preparation to make that selection. The best guarantee lays in front end preparation that should focus on building a solid foundation to support the challenges “down the road”. This would include securing commitment and cooperation from everyone involved that the work effort will be put forth as it is needed as well as ensuring that adequate knowledge exists to understand the options available (project team competence)[12]. Likewise getting people educated/trained and keeping them informed throughout the implementation process must be addressed to achieve the benefits of an ERP system. To accomplish these CSFs, significant effort is required that must be supported by top management involvement to ensure that the implementation receives the resources, time and priority that is necessary. In addition, although vendor partnership was viewed as important in the initiation phase of the implementation, it should be noted that responsibility for key aspects of the project should not be delegated to software vendors or consultants. These
external parties should be viewed as auxiliary resources, not as drivers.

With the maturing of ERP software, standard business practices and standard commercial transactions, tomorrows ERP can be broken into reusable components. This would lead to software downsizing reducing both the cost of the software and the time to implement it. Both ERP vendors like SAP, Baan and software vendors like Microsoft and Oracle are working on these exciting areas. The end user can expect to see these ideas translated into practice over the next two to three years.

CONCLUSION
India is opening up and going global and playing a very important role in the business of IT implementations have moved from big companies to the SMB segment. This in turn has caught the attention of vendors and consultants. Most of the big vendors have realized the need to tap the SME segment since the large enterprise market is nearing saturation. The vendors are now offering condensed granular versions to suit the SME market along with their regular ERP solution portfolio. For instance, SAP recently launched its SMB product - Business One. Oracle has also launched its SMB version of its Oracle E-Business Suite, named EBS-SE.

There is an upward trend in the market and now with the growth of the SME segment, a lot of ERP implementations are also happening. Currently ERP products are available to address all business functionalities. But often customers especially do not need all the functionalities at a time. This has led to a new trend of component-based solutions. ERP vendors are in the processes of providing component-based product. One may decide to buy only sales and finance components, and can add materials and production later. This will address the budgetary constraints and the customer will pay only for what he needs. Hence the ROI model will look more attractive and business will be able to justify the investments effectively.

FUTURE SCOPE
ERP has evolved much over the years but more enhancements are required. In the future we could see increased Web-based interfaces and object-oriented databases. A stronger move to ASPs (Advanced Scheduling and Planning) is also expected. In terms of technology, the ERP systems are evolving to more user friendly versions. They are in the process of moving from client/server technologies to being Internet-based applications. The self-service modules in the products are aimed at lay users who need not be trained for using the system. To summarize, the trend definitely is moving towards integrated packages for decision support, large vendors catering to all market segments and players focusing on the full spectrum of IT services around these packages. A one-size-fits-all scenario does not exist, and there would be other applications working with ERP to drive growth and efficiency. With growing recognition of business process management (BPM), another layer of BPM applications would be working with ERP, SCM, and CRM application integrated with EAI tools.

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