

INDIA

Indian IT industry 2.0

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Ready for inorganic growth

Our first sector report focuses on two aspects: the current state of the industry and the role of inorganic strategies in long-term profit growth. We conclude that in the medium term there is still headroom for super-normal growth, but over the long term, companies would have to adopt inorganic growth strategies to counter margin and growth rate pressures. We met with 25 personnel representing senior management from 11 companies, industry experts and consultants.

Medium term – current environment good, still some headroom

From the perspective of demand, market share, supply and competitiveness, the current valuations of the Indian IT industry can hold up, even leaving some headroom for the next 3–5 years. But post that period, there should be a gradual decline in margins and revenue growth rates.

Long term – inorganic growth to offset margin pressures

To counteract the impact on margins and revenue growth, or to aim for even higher valuations, Indian IT companies should leverage inorganic growth tools to transform themselves into truly global companies, climb up the value chain, and add non-linearity to their business model.

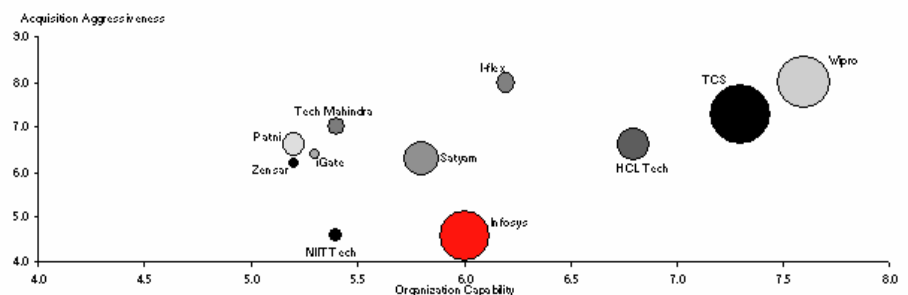
Inorganic strategy evaluation – Wipro & TCS stand out

Within the sector, Wipro and TCS appear to have superior inorganic strategies in place and are therefore likely to sustain long-term profitable growth. Our structured survey plots 11 companies based on relative focus on inorganic strategy and organisational capabilities. In effect, it does a relative evaluation of inorganic growth strategies, as shown in Figure 1 below.

Inbound acquisitions – multiple potential targets

MNC IT companies are expected to continue to inorganically build delivery capabilities in India. Potential targets include iGate, Zensar, Hexaware and NIIT Tech. These targets realise the need for scale and should see aligning with MNCs as an option. Further, they fall well into the size spectrum of a typical MNC acquirer. A two-month acquisition premium ranges between 10% and 70%.

Fig 1 Potential acquirers – Wipro & TCS stand out



Source: Macquarie Research, December 2006

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Ready for inorganic growth

Demystifying long-term profitable growth

In our quest to demystify the dynamics behind the long-term profitable growth of the Indian IT industry, we first analyse the state of the industry (demand, market share, supply and competitiveness) to ascertain if the current valuations can hold up or not. Subsequently, we extend our analysis to get a long-term view and try to establish the role of inorganic growth strategies within the larger context of overall strategy. We look at various inorganic transaction objectives and analyse their impact on key valuation drivers like revenue, margins, growth and risk. We then come up with a framework to evaluate the inorganic growth strategies of the companies, in order to identify the players that appear to have the superior strategy. We take into account management meetings and track records, and then combine our findings with our industry experience to formulate our opinion. In addition, we analyse the need for MNC IT companies to acquire Indian IT companies, and identify a couple of potential Indian targets.

Lastly, we share certain global best practices and make some industry recommendations that would better equip the Indian IT industry in its journey towards inorganic growth.

Medium term – current environment good, still some headroom

In the medium term, the fundamentals of the Indian IT industry look good enough to support current valuations, even leaving room for further expansion for select players depending upon their strategy execution. We have looked at demand, market share, supply and competitiveness of the industry to arrive at this conclusion.

High industry growth rates and low market share

From a demand perspective, the target global IT spend is expected to grow at a robust 9% CAGR in the next 3–5 years. On top of this traditional IT spend, there is a big component of spend arising from the adoption of outsourcing and offshoring models, which themselves are growing at 10% CAGR. Although the Indian IT industry has seen phenomenal growth over the past 15 years, its current market share stands at a mere 5%. Nasscom has also predicted that from US\$30bn in 2005, Indian IT/ITeS revenue will go up to US\$60bn by 2010, implying big room for expansion.

Adequate availability of skilled manpower

The Indian education system, coupled with the innovative training practices adopted by the leading IT companies in India, has ensured that the growth will not be constrained by manpower supply. To put it in numbers, the required manpower as a percentage of available supply each year stands between 35% and 40% for the next couple of years – in other words, this aspect is not a cause for worry.

Maintain cost leadership, add scale

Lastly, on the competitiveness front, we believe India will not only continue to maintain its cost leadership over other countries like China, Latin America, etc., but also shows scalability in supply.

Long term – inorganic growth to offset margin pressures

In the long term, margin pressures and a decline in the current growth rates are likely. We base this on the three key reasons, namely, salary hikes, MNC competition and linear growth challenges (discussed below).

Salary increases greater than product price increases

Firstly, as India Inc. grows in prominence, so would salary levels. Clearly, the rate of salary increases would be greater than the rate of selling price hikes. The Indian IT industry currently manages this mismatch by widening the base of the pyramid, ie, increasing the proportion of entry-level personnel in the overall employee cost. But there is a limit in doing so, implying margin pressure in future.

MNC competition quickly building India capabilities

Secondly, MNC IT players are adopting the global delivery model and quickly ramping up their India delivery capacities, thereby reducing their cost of goods sold. A quick data point is that IBM and Accenture employ roughly 45,000 and 15,000 personnel in India, respectively, and growing via both the organic and inorganic routes. This means that competition will get fiercer.

Linear growth would bring about management challenges

Lastly, the current linear business model implies that 10–15 years from now, a top-tier Indian IT firm would have hundreds of thousands of staff – a situation that would throw in management challenges.

Inorganic to complement organic strategy

To overcome the above issues, the Indian IT industry needs to do something different from what they have been doing till now. One area of clear leverage is complementing the current organic growth strategy with a comprehensive inorganic growth strategy. Such transactions would drive up valuations by transforming Indian players into truly global players, help them to climb up the value chain, and build non-linearity to their business models.

Inorganic strategy evaluation – Wipro & TCS stand out

Wipro & TCS have superior inorganic growth strategies

We have identified Wipro (WPRO IN, Rs590, NR) and TCS (TCS IN, Rs1,196, NR) as leaders in their current inorganic growth strategy and are expected to execute further on this front. We also believe that for Satyam (SCS IN, Rs463, NR), Infosys (INFO IN, Rs2,245, NR) and Tech Mahindra (TECHM IN, Rs1,135, NR), inorganic strategies can play an important role towards safeguarding long-term valuations. However, they could do better in terms of having a more pro-active approach.

We arrived at the above conclusion after meeting with 25 personnel representing senior management from 11 companies, industry experts and consultants. We administered a structured questionnaire (supplied in Appendix 1) and came up with a strategy evaluation framework measuring relative focus on inorganic strategy and organisational capabilities.

Inbound acquisitions – multiple potential targets

Small, mid caps look attractive

We believe MNC IT companies will continue to adopt the global delivery model to build delivery capabilities in India. Therefore, we expect to see continued momentum in inbound acquisitions. Potential targets could be iGate Global Solutions (IGS IN, Rs242, NR), Zensar Technologies (ICIM IN, Rs228, NR), Hexaware Technologies (HEXW IN, Rs189, NR) and NIIT Technologies (NITEC IN, Rs265, NR). These relatively small Indian IT companies realise the need for scale in order to compete and therefore should see aligning with MNCs as a strategic option. Further, they fall well into the size spectrum of a typical MNC acquirer. Typically for such transactions, the two-month acquisition premium for listed companies ranges between 10% and 70% and the historical PER of the target ranges between 22x and 42x.

Medium term – still some headroom

Good industry fundamentals, implying justified valuations

We believe that:

- There is enough demand to support growth, given that the addressable market is growing at 9.5% CAGR and globalisation is offering additional offshore/outsourcing opportunities.
- Market share is fairly conducive for growth, with Indian IT vendors currently accounting for 5% of the global market.
- There does not seem to be substantial pressures from the supply side.
- The industry's competitiveness also remains intact compared with other countries.
- This means that, in the medium term, the fundamentals of the Indian IT industry are likely to support current valuations, leaving room for further expansion for select players depending upon the execution of their strategies.

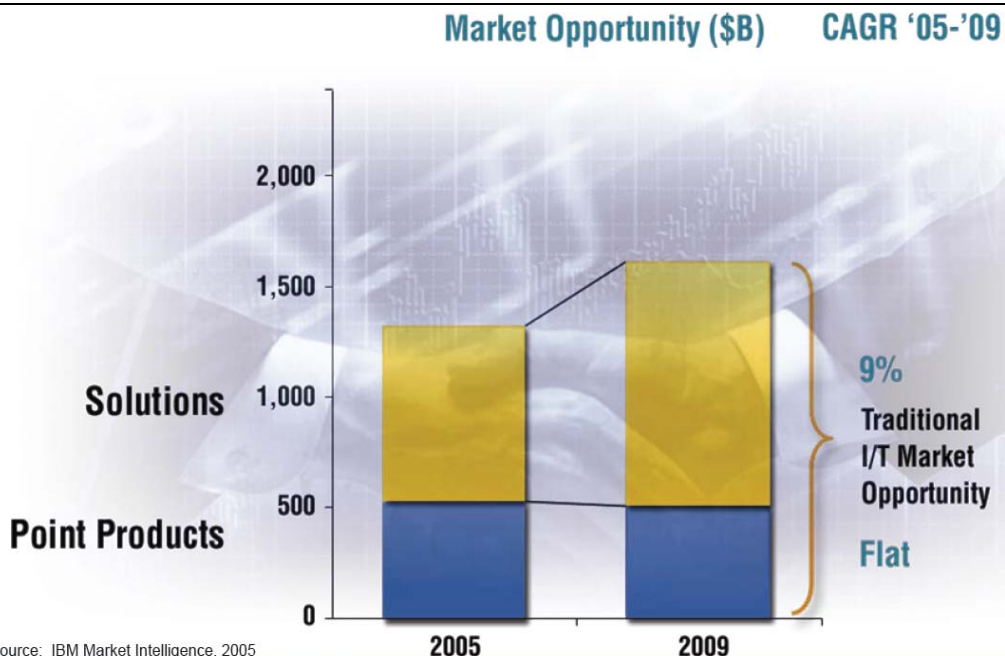
Healthy demand growth

Figure 2 shows global demand for IT in 2005 and the expected growth in 2009. It breaks down the total demand across point products and solutions, with point products including servers, personal computers, networking equipment, licences for software, etc.; and solutions primarily representing services such as package implementation, custom application development, systems integration, maintenance and support.

Notably, the global demand for solutions (ie. services) is growing at a CAGR of 9% from a 2005 base of about US\$800bn, while the growth in point products is almost flat (due primarily to price falls in hardware equipment). The Indian IT industry is primarily involved in this solutions/services space. Therefore, the part of the addressable market for Indian IT companies is growing at 9% CAGR.

Part of addressable market is growing at 9% CAGR

Fig 2 Global IT demand



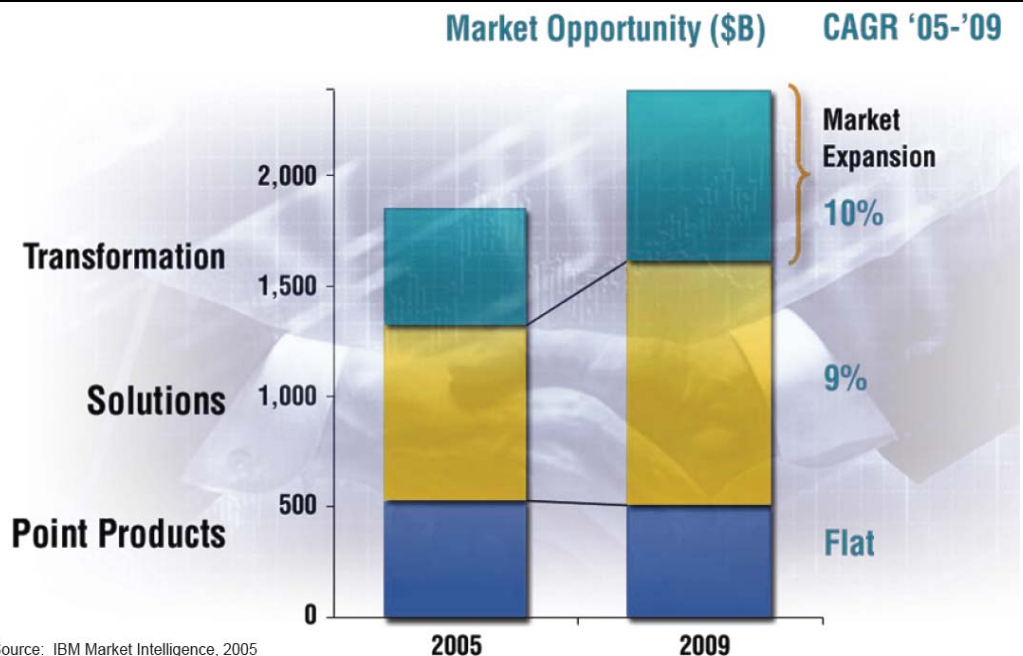
Source: IBM Market Intelligence, 2005

Note: Taken from IBM Global Briefing, Bangalore, India, 6-7 June 2006. Available at: <http://www.ibm.com/investor/events/global0606/>
Source: IBM, December 2006

Figure 3 captures the impact of globalisation and internet technologies and the resulting market expansion via outsourcing and offshoring. In summary, these new business transformation opportunities are adding about US\$500bn to the current market size and this segment itself is expected to grow at 10% CAGR during 2005–09. Again this potential growth falls within the addressable market for Indian IT companies.

Outsourcing and offshore trends adding substantially to addressable market

Fig 3 Global IT demand, with impact of globalisation



Source: IBM Market Intelligence, 2005

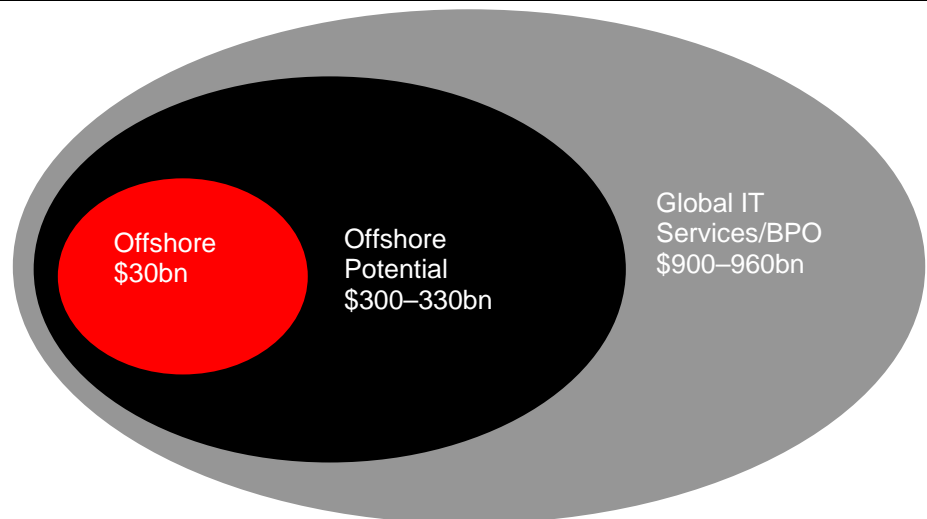
Note: Taken from IBM Global Briefing, Bangalore, India, 6-7 June 2006. Available at: <http://www.ibm.com/investor/events/global0606/>
 Source: IBM, December 2006

Room to grow market share

The Nasscom-McKinsey Report 2005 estimates the total global IT services/BPO market to be around US\$900–960bn. The potential for global IT services to move offshore to low-cost countries is estimated at about 30% of this total. Currently 10%, (about US\$30bn), has been outsourced to India, either to Indian vendors or through ‘captive units’ set up by MNCs, with the distribution between them being roughly equal. This implies that the global market share of Indian IT vendors stands at around 5%. Nasscom predicts that this number will hit US\$60bn by 2010, implying that there is much room for expansion.

Indian IT industry has 5% of global market share

Fig 4 Large potential for Indian vendors (US\$)

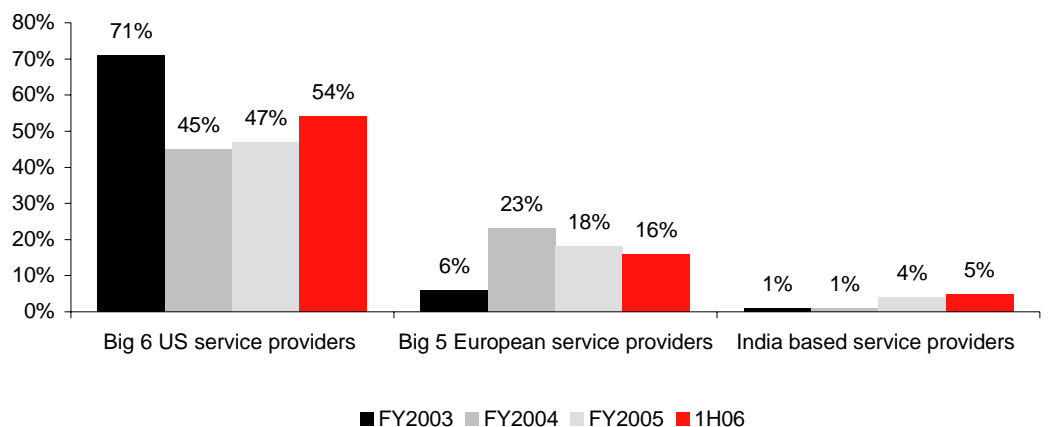


Source: Nasscom-McKinsey Report, 2005

According to Technology Partner International (TPI), the share of Indian vendors has increased from 1% in 2003-2004 to 4% in 2005 and 5% in 1H06. This is roughly half of the total IT services exported from India. The other half is from the captive units of MNCs.

Indian IT industry has grown over the years; still has substantial growth potential

Fig 5 Indian vendors capturing market share



Source: TPI, Macquarie Research, December 2006

Arguably, the current market share has room for substantial expansion.

Adequate supply of skilled manpower

The raw material of Indian IT services industry is its skilled manpower. One of the concerns investors have is whether there are any supply-side constraints.

In a research conducted by Nasscom and India's Ministry of Human Resource Development (HRD), it was estimated that growth constraint due to a supply bottleneck is highly unlikely. The study indicated that the percentage of required IT professionals to those available is not expected to change substantially from 2005 to 2008.

Required manpower as a percentage of available manpower not changing much

Fig 6 Skilled manpower supply enough to satisfy demand

('000)	FY02	FY03	FY04	FY05	FY06	FY07E	FY08E
IT services and software	170	205	296	390	513	667	847
BPO services	106	180	216	316	409	532	665
Domestic sector	246	285	318	352	365	383	399
Total	522	670	830	1058	1287	1582	1910
Required IT professionals			124	128	136	172	195
No of engineering graduates			316	365	441	501	536
Degree (four years)			139	170	222	270	290
Diploma & MCA (three years)			177	195	219	231	246
No of IT professionals (Comp Sc, Elec & Telecom)			179	201	246	280	303
Engineering IT graduates (degree)			84	102	133	162	180
Engineering IT graduates (diploma)			95	99	113	118	123
Required/Total pool			39%	35%	31%	34%	36%
Required/Total IT professionals			69%	64%	55%	61%	64%

Source: Nasscom, India's Institute of Applied Manpower Research, India's Ministry of HRD, December 2006

In addition to increasing the supply base in line with demand, leading companies are adding 'finishing schools' to their core operations, in order to cast a wider net for talent. Here, they take in bright people from non-IT backgrounds such as science, mathematics and even the arts, train them for a couple of weeks to two months, and eventually turning them into IT professionals. A good example of this is Infosys' training facility in Mysore, which has the capacity to train 13,500 individuals at any given time and 40,000 per year.

Retaining competitiveness

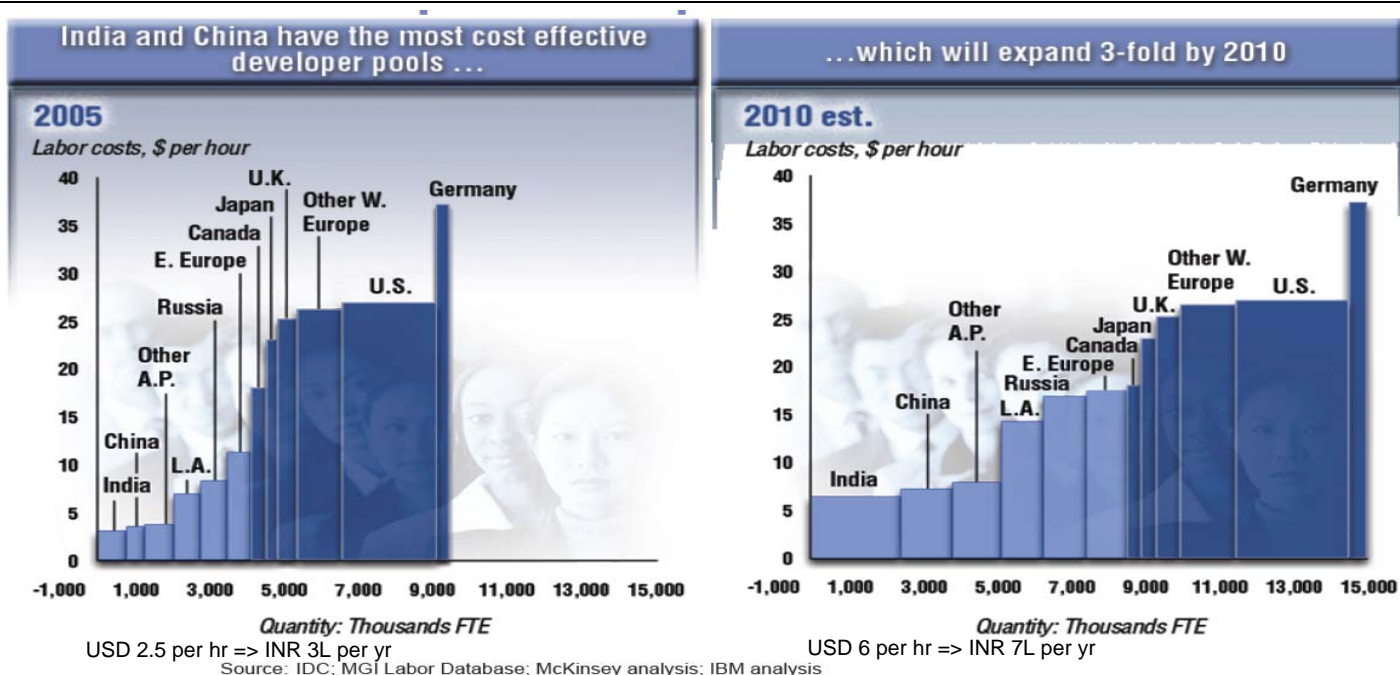
This brings us to our last discussion on competitiveness. Labour cost arbitrage is the key factor behind the birth and evolution of Indian IT services industry. Of significant concern is whether the high wage inflation at 10–15% will dent the competitiveness of the Indian IT industry, thus allowing other countries to challenge Indian dominance.

India maintains cost leadership and demonstrates scalability

Figure 7 plots the labour costs (in US\$/hour) against supply (in thousands of full time employees or FTEs) in different countries for 2005 and forecasted for 2010. The interesting conclusions are:

- India maintains its cost leadership till 2010, despite the wage inflation.
- More importantly, India demonstrates scalability by growing its supply base substantially, implying increased ability to execute large projects.

Fig 7 India maintaining labour cost advantage



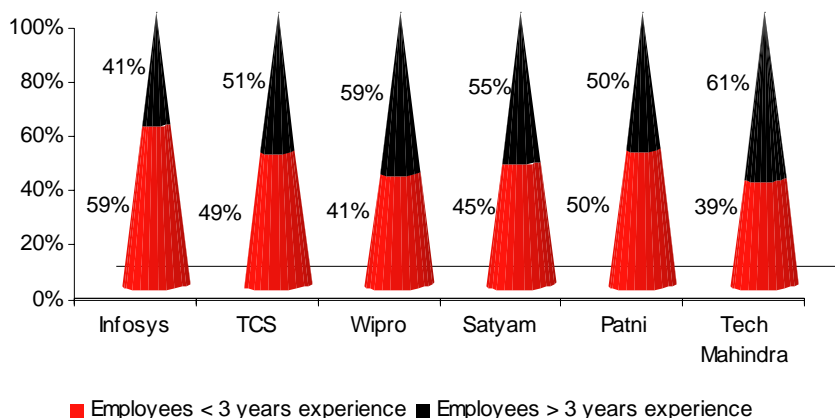
Note: Taken from IBM Global Briefing, Bangalore, India, 6-7 June 2006. Available at: <http://www.ibm.com/investor/events/global0606/>
Source: IBM, December 2006

Note that Figure 7 depicts the labour cost for entry-level employees and not for middle and senior management. We acknowledge the negative impact this increase would have on overall competitiveness, but would also like to point out the counter-measures that leading Indian IT companies are initiating to mitigate the effect.

Figure 8 captures the percentage of workforce with 0–3 years of experience. Companies are managing the costs by broadening the base of the pyramid, thereby diluting the effect of high wage inflation at the middle and senior management levels. In summary, we believe the cost-competitive edge enjoyed by Indian companies will continue in the near future.

The art of cost management

Fig 8 Broader employee pyramid implies lower average cost



Source: Macquarie Research, December 2006

Long term – inorganic growth essential

Pressure on margin and revenue growth in the long term

Inorganic to complement organic strategy to offset negative valuation impact

As seen so far, the fundamentals of the Indian IT industry look good for the next 3–5 years. However, in the long term, that is, 10–15 years from now, there is likely to be pressure on margins and a decline from current growth rates. This implies a negative impact on valuations, if the current growth strategies continue.

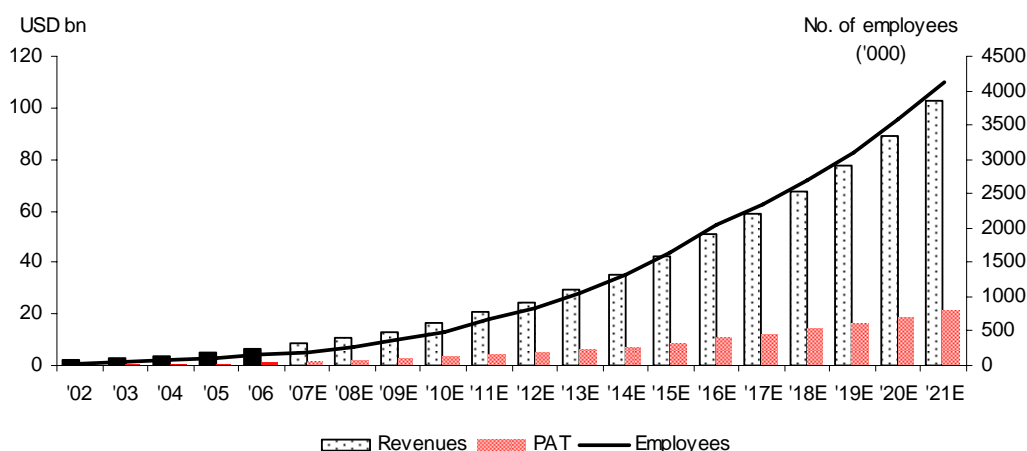
The Indian IT industry needs to evolve its growth strategy. One area of clear leverage would be to complement the current organic growth strategy with a comprehensive inorganic growth strategy. Such transactions would drive up valuations by transforming Indian players to truly global players, helping them to climb the value chain and build non-linearity to their business models.

Challenges facing organic growth

Our expectation that long-term margin and growth rate pressures will increase is due largely from our view that *‘the world will become flatter’*. Specifically for the current context of the Indian IT industry, three arguments support our conclusion.

- **Salary hikes more than price hikes:** Economic prosperity and high GDP growth in India will keep driving up salary levels, narrowing the labour cost arbitrage. In the past, we have seen annual salary hikes of around 15% and annual selling price (billing rates) hikes of around 7%. If this continues, it would put pressure on competitiveness and therefore growth and margins.
- **MNC competition increasing due to GDM adoption:** MNCs are quickly adopting the global delivery model (GDM) to build up delivery capabilities in India, which in effect reduces their cost of service delivery. They are building these capabilities via a mix of organic and inorganic growth. For instance, IBM today has over 45,000 employees in India and is growing at a fast pace via acquisitions such as of Daksh and Network Solutions. Capgemini recently acquired Kanbay, adding 4,500 people. (A detailed analysis on inbound acquisitions made by foreign IT companies is covered later in this report.) This would again put pressure on competitiveness and therefore growth and margins.
- **Linear growth challenges:** Scalability will be an issue in the long term. Today’s Indian IT corporates have linear business models – revenue and PAT grow in line with the number of employees. Extending this type of growth to the long term would mean individual corporations having to employ hundreds of thousands of staff, bringing about management challenges as well other issues. This is shown in Figure 9.

Fig 9 Increasing manpower likely to bring about management challenges



* Aggregate numbers for Infosys, Wipro, Satyam and HCL Technologies
Source: Macquarie Research, December 2006

Impact on valuations

In the quest to solve these long-term issues, innovative companies could actually go beyond expectations and attract even higher PER multiples. What needs to be done to achieve higher valuations? The answer lies in looking at what constitutes valuations from a financial perspective and then translating this to a business perspective. In terms of the fundamentals of equity analysis, the key valuation drivers are revenue, margins, future growth and business risk.

Generally, inorganic transactions would favour valuations

In Figure 10, we have listed six generic inorganic growth objectives in the first column, with the four key drivers of valuation (revenue, margin, growth and risk) in the top row. The individual cells capture the impact of the respective objective on the respective level. It is important to note that the data below is a generalisation based on the current context of the Indian IT industry and empirical data. As a result, it might not apply across the board to future transactions. Our aim is to understand how inorganic strategies typically impact overall valuations.

Fig 10 Inorganic objectives to drive valuations

Inorganic objective	Impact on				Overall Valuation
	EPS		PER		
	Revenue	Margin	Growth	Risk	
Build scale (for small & mid caps only)	<i>Strong Favourable</i>	<i>Unfavourable</i>	<i>Favourable</i>	<i>Slight Unfavourable</i>	Favourable
Fill market coverage gaps	<i>Favourable</i>	<i>Slight Unfavourable</i>	<i>Slight Favourable</i>	<i>Slight Unfavourable</i>	Favourable
Enter new services/industry domains	<i>Favourable</i>	<i>Slight Unfavourable</i>	<i>Slight Favourable</i>	<i>Slight Unfavourable</i>	Favourable
Acquire large customers CxO relations	<i>Strong Favourable</i>	<i>Neutral</i>	<i>Favourable</i>	<i>Slight Unfavourable</i>	Strongly favourable
Move up the value chain	<i>Favourable</i>	<i>Slight Unfavourable</i>	<i>Favourable</i>	<i>Unfavourable</i>	Favourable
Build non-linearity (products business)	<i>Favourable</i>	<i>Favourable</i>	<i>Strong Favourable</i>	<i>Unfavourable</i>	Strongly favourable

Source: Macquarie Research, December 2006

Six growth objectives driving long-term valuations

1. Increase scale (for small & mid caps only)

This simply means that a corporate basically acquires another corporate to aggregate revenue. This typically makes sense for small or mid caps only, when they wish to quickly cross the barrier of economies of scale. This strategy is also used in situations where the acquirer does not meet the minimum size requirement to meet a tender requirement.

2. Fill the market coverage gaps

The Indian IT industry does not have a presence in all parts of the world. For example Latin America, Italy, Germany, France, Japan, Australia etc are countries where market potential exists but it is relatively difficult to organically build capabilities due to cultural/language barriers.

3. Enter new services/industry domains

The IT industry has a very wide spectrum of services, which is expanding with innovation at the periphery. New technologies like service-oriented architecture (SOA), Web 2.0 and the evolution of e-business technologies mean that Indian service providers always seem to be in 'catch up' mode with other competitors. Also, as IT further entrenches itself into core business processes, providing IT solutions becomes domain intensive. For example, IT solutions to banks are very different from those for the retail industry. Owing to the levels of specialisation within the industry, Indian companies may want to gain niche capabilities, which is a valid reason to make acquisitions.

4. Acquire large customers, CxO level relations

This move comprises a mix of objectives – to increase scale and market coverage – and is more applicable to small and mid-cap companies. It basically involves companies making acquisitions in order to obtain the acquiree's senior-level customer base. This is a meaningful objective because Indian IT companies have institutional clients (rather than retail clients), and their offerings are relatively complex. This means that the sales cycles are long, with much effort involved in forming CxO level client relationships. In culturally different countries, it makes sense to 'buy' these CxO level relations rather than to build them from the ground up.

5. Move up the value chain

A classic challenge for Indian IT companies is to sell high-margin, high-value-add services. Examples of these services include business process re-engineering, management consulting, etc. We believe such projects provide high visibility for clients and therefore help companies become more differentiated (as against application maintenance and support businesses). Being highly differentiated means margins are also potentially higher. With high-level service offerings, Indian IT companies are becoming full service providers from business consulting, process design, package implementation, application development, through to maintenance and support, thus strengthening their level of engagement with clients and possibly increasing their share of the clients' spending. An Indian IT company can have a portfolio approach in its development, by building some capabilities ground up and acquiring boutique firms. A radical yet possibly feasible approach would be for an Indian IT firm to merge with a global consulting firm.

6. Build non-linearity (moving into product or IP-based businesses)

As discussed above, Indian IT companies tend to have linear operating models – where the revenue and PAT increases as the number of employees increase. The alternative is that of product companies like Microsoft, Oracle, SAP, etc, which have non-linear models. In theory, they make a generic product, burn them onto CDs and sell it to world markets. As a result they tend to have large development cycles, but a very small cost of goods sold provide a large amount of operating leverage. We acknowledge that this also means that if they misjudge customer requirements when developing these products, the potential losses may be substantial. Thus, these companies will need a strong internal product marketing, selling and distribution engine.

Clearly, the products business is very different from the services business that most Indian companies have. This is largely due to the difference in the DNA of a products company and a services company. However, by not being involved in this segment, Indian IT companies are missing out on the large IT spend and the associated non-linearity in the products business. An Indian IT company could move into this space with a portfolio approach, that is, by building some products from the ground up and acquiring some products. Note also that there are hybrid business models that have products as well as service revenues, providing a natural hedge to total revenue streams. In our opinion, hybrid business models are the most evolved models.

Need for inorganic growth

In order to achieve the above long-term objectives, we believe Indian IT companies should complement their organic growth strategies with inorganic ones. Below are our reasons why we believe a 'make and buy' approach should be used.

- **Efficient use of free cash:** Indian IT companies generally have huge amounts of cash on their balance sheets. There are three potential areas where this can be used. They can either buy back shares, pay out dividends or buy out business assets. As there are limits on a share buyback and dividends are not very tax efficient, one of the most efficient uses of this cash would be to buy out business assets to complement organic growth.
- **Buy, then build portfolio:** Similar to a portfolio management strategy, IT companies can mix both organic and inorganic strategies to spread the risk. We think it is better to jumpstart the process by first buying assets that meet such objectives and subsequently building them.

Inorganic to complement organic strategies

- **Reacting to change:** As discussed earlier, IT MNCs are rapidly building their capabilities in India by making inbound acquisitions. In the spirit of reactivity, Indian IT companies need to do the same by quickly acquiring foreign turf.

Risks of inorganic growth strategies

Pursuing an inorganic growth strategy is not simple. There are a number of risks and it is a known fact that a majority of inorganic transactions fail. Why then do the world's leading companies across industries pursue inorganic growth strategies? The answer is that like any high-risk strategy, the returns are also high, and the key is in mitigating the risks by doing the right things and doing things right. Hopefully, this report may as a fallout elucidate this topic further and help corporates execute better on inorganic growth.

Now we discuss our top two risks of embarking on inorganic growth strategies, and therefore the pitfalls to avoid when embarking on an inorganic growth route. Note that these are peculiar to the current context of the Indian IT industry.

Integration issues

Integration issues are the prime reason for the failure of acquisitions globally, even in situations when the acquirer and the target are both from the same country. Companies have different corporate cultures, making it a challenge to integrate them. This factor is magnified many times in the context of the Indian IT industry, since most inorganic transactions are cross border, thus involving different nationalities, culture, laws and ways of doing business. This point is discussed at length later in this report. The way to mitigate this risk is to adopt global best practices in acquisition integration (see Appendix 4). We think the best way to learn the art of successful integration is to learn from experience.

Margin erosion

The profit margin of an average Indian IT company is higher than that of its global peers. This implies that post acquisition, there would be margin erosion on the books of the Indian IT company (that is the acquirer), if the target is in another country. This is largely due to two factors. First, the foreign target typically has not implemented the global delivery model (GDM). As a result, services are delivered from a high cost region. This factor would be taken care of when the combined entity adopts the GDM. Second, the high bonus payouts to middle and senior management of US/European IT services/consulting companies pose a challenge. This point is hard to tackle as a cut in the bonus payout policy of the combined entity could result in staff leaving the merged entity. One way to deal with this in the short term is to structure broad-based earn-outs for key company personnel and normalise the compensation policy. It is important to note that margin erosion does not imply a weaker business. Rather, the business may emerge stronger with a larger portfolio of offerings and internal synergies.

***Cross-border deals
amplify cultural
differences***

***Typically, a target
will have
lower margins***

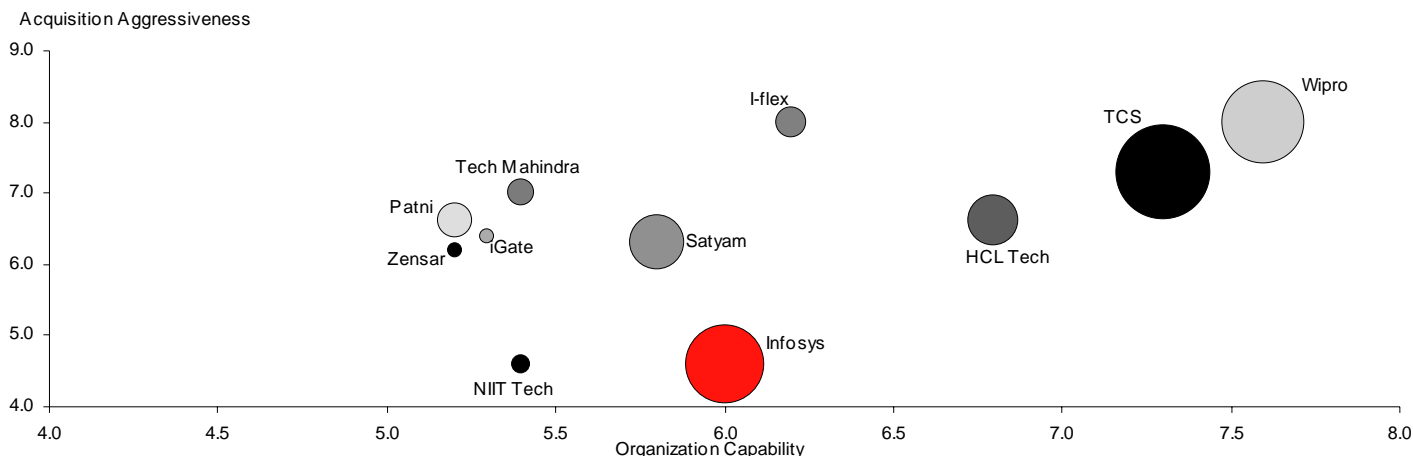
Inorganic strategy evaluation

Wipro and TCS have superior inorganic growth strategies

We have identified Wipro and TCS as leaders in their current inorganic growth strategies and are expected to execute further on this cause. In the long term, they are the most likely to demonstrate long-term profitable growth.

We have also identified Satyam, Infosys and Tech Mahindra as players for whom such strategies will be important in safeguarding long-term valuations, but who we think can do better in terms of execution.

Fig 11 Potential acquirers – Wipro and TCS stand out



Source: Macquarie Research, December 2006

Figure 11 shows a framework that we designed to evaluate the inorganic growth strategies of various players in the Indian IT industry. It has the following three dimensions:

- **Acquisition aggressiveness:** This is a measure of how aggressively the corporate pursues an inorganic growth strategy. The number of past transactions, relative size of past transactions and paid valuations are some of the parameters used to evaluate this metric.
- **Organisational capabilities:** This is a measure of the ability of the corporate to seek, evaluate, conclude **and** successfully integrate an inorganic transaction. Organisational structures, learning from past mistakes, successful past record and management focus are some of the parameters used to evaluate this metric.
- **Circle size:** A comparison of the size of the circle provides a relative measure of the corporate's revenue.

Our evaluation is based on the meetings we had with 25 personnel representing senior management from 11 companies, industry experts and consultants. We administered a structured questionnaire (see Appendix 1), and then normalised the data we captured using our industry experience. Our analysis of the companies is detailed in the following section.

Company analysis

This section captures the nuances in the inorganic growth strategies of the various companies we covered during our meetings with management. Where possible, it also substantiates the strategy with a sample transaction case study. For a complete list of all past acquisitions, refer to Appendix 3.

Fig 12 Wipro tops the acquisition chart

Company	No. of material transactions	Average size (no of staff)	Average size (buy price US\$m)	Average EV/Revenue (x)
Wipro	13	461	33.2	1.1
TCS	9	789	32.6	0.7
HCL Technologies	6	273	16.6	1.3
i-flex	4	128	48.0	2.8
Patni	3	322	25.3	1.3
Satyam	2	67	1.7	0.2
Zensar	2	150	3.1	0.8
Infosys	1	330	36.3	0.7
Tech Mahindra	1	850	54.0	1.9
NIIT Technologies	1	120	25.0	1.0

Note: We have made assumptions to the data above to provide for lack of details.

Source: Macquarie Research, December 2006

Tata Consultancy Services

Inorganic route to become more global

Tata Consultancy Services (TCS) uses inorganic growth tools with the aim of transforming itself into a purely global organisation. More specifically, its objectives are to:

- Gain access to new markets.
- Build an international culture and capabilities.
- Build non-linearity into its business.

It has successfully made transactions towards all these stated objectives.

For example, the acquisition of FNS gave TCS a platform for core banking solutions, which drove up licence and services sales and helped make its business less linear. TCS then formed a JV with State Bank of India (one of its big FNS customers) to drive core banking solutions for other banks, leveraging on the expertise it had gained.

It formed a three-way 65:10:35 joint venture in China, with Microsoft and a local Chinese government body. The objectives of this JV are to 1) service the local Chinese markets; 2) use this base as a resource pool to service Japanese and Korean clients; and 3) service its MNC customers based in China.

The Comicro and TKS transactions also had non-linear impact, in addition to providing market access and capabilities objectives. Comicro offered triple benefits: it provided market entry to Latin America, built capabilities to service Spanish customers and added a payments processing platform IP. TKS provided direct access to client relationships and the addition of a couple of modules into its core banking product.

Organisationally, the head of M&A reports to the CFO and in turn has a dedicated staff of 3–4 personnel. The current M&A head joined TCS about four years ago, coming from a pure M&A background.

Wipro Technologies

Most sophisticated processes and structure to support inorganic strategies

Wipro Technologies sees its comprehensive inorganic growth strategy as a big differentiator from its competition. Apart from acquisitions, it also views strategic JVs as an inherent part of its inorganic growth. One good example of its strategic JV initiatives is its JV with Motorola in India. Its inorganic strategy so far has been to fill gaps in service offerings, and not for aggregation purposes.

Wipro has one of the most evolved and mature inorganic growth strategies in place. Internally it is referred to as a 'string of pearls'. The basic premise of this strategy is that inorganic planning is integrated with corporate planning, and is included at every level of the organisation structure, from the bottom up. We think this strategy maps an appropriate organisation structure. There is a central group M&A 'cell' headed by the Chief Strategy Officer (CSO), who has dual reporting lines, to the CEO and CFO. A similar structure is replicated at the group company level, BU level and SBU level, such that the strategy is driven from the bottom up. The CSO has been with Wipro for 23 years and has attended informal acquisition integration coaching from leading organisations like GE and Cisco Systems.

Culture is paramount

Infosys Technologies

Infosys Technologies looks at acquisitions from a strategic and tactical perspective, but believes that such moves should be centred on the core business. It clearly understands that inorganic strategies help break out of the biggest challenge of organic growth – linearity. It also understands the current gaps in its market coverage and service offerings, which can be filled via tactical acquisition. Areas it has identified include Europe coverage, Latin America coverage, life sciences practice and enterprise solutions practice. However, the company remains conservative in its execution of inorganic transactions.

Infosys, although perceived as pursuing only an organic growth strategy, established an organisation to support inorganic growth back in 2000. The head of M&A reports directly to the COO from a strategy perspective and to the CFO from a finance perspective. He in turn has a team of 2–3 personnel, shared with other finance functions, who oversee legal, financial modelling and valuations.

Satyam Computer Services

Building niche capabilities

Satyam Computer Services' stated objectives for inorganic transactions are to:

- Increase its footprint in non-US markets, including Japan, Europe and Australia.
- Add industry verticals.
- Enhance domain knowledge.

Satyam is very clear that it will not make an acquisition to build size. In the past, it has made two acquisitions – Citisoft and Knowledge Dynamics, both meeting one or more of its stated objectives. Both these transactions make interesting case studies.

Citisoft was a UK-based acquisition. It added a high-end management consulting layer to Satyam's core services, gave Satyam an entry to high end solutions for investment management companies and increased Satyam's UK footprint. Due to relatively different cultures in its core IT services/support company and a high-end management consulting company, Satyam's strategy was wise – it maintained the identity of Citisoft as a separate wholly-owned subsidiary. As a result, almost all of the employees are still with the company and the planned synergies have been captured.

Knowledge Dynamics on the other hand was a smaller acquisition in Singapore, which gave Satyam a high-end analytics capability within its data warehousing/business intelligence practice, coverage in Singapore and a few key clients in the BFSI vertical. In addition, it provided an IP/product (iDecisions), which it now offers as a service. The real impetus behind this deal was Satyam feeling competitive pressure from Knowledge Dynamics in key accounts.

Satyam's experience with joint ventures has not been as good as with acquisitions. Its JV with Computer Associates has had a lacklustre performance.

Interestingly, both the companies Satyam acquired were not up for sale – which is in line with Satyam's perceived aggressiveness from a deal-closure perspective.

Organisationally, the M&A function is separate from the strategy function, though there is collaboration between the two. The head of strategy reports to the CEO and the head of M&A reports to the CFO. The M&A head has a techno-commercial background and has been with the company for the last 8–9 years. He has a team of 3–4 people.

Building capabilities through JVs

HCL Technologies

An interesting theme that came out from our discussions with HCL Technologies (HCLT IN, Rs639, NR) was the strength of its joint ventures towards inorganic growth. HCLT uses inorganic growth tactics primarily to build capabilities. This is typically by forming a 50:50 JV with the desired company, continuing to hold a stake in the JV for certain duration of time and then exiting when the intended objectives are met.

For example, it formed a JV with Perot Systems (US) in the 1997 to gain IT outsourcing capabilities. It exited the JV by selling its stake to Perot Systems in December 2003. Similarly, in 2001, it formed a JV with Deluxe Corporation (US) and Deutsche Bank (Germany) to gain capabilities in high-end IT solutions for financial services. Recently, it rolled this JV into its core operations. HCLT currently has standing JVs with Jones Apparel (US) and NEC (Japan), to gain capabilities in the retail and hi-tech industries, respectively. Further, in November 2006, it announced a JV with Celestica (Canada), to gain capabilities into the next wave of India story – manufacturing.

Celestica is a Fortune 500 electronic manufacturing services (EMS) company. In the short term, the JV plans to draw on each of the companies' strengths to provide end-to-end (concept-to-manufacturing) services to IT original equipment manufacturers (OEMs). In the medium term, HCLT will gain capabilities in the large EMS space to probably get into actual electronic component manufacturing. This is in line with the trend we are seeing, with Nokia and Flextronics recently announcing the set up of a manufacturing unit in India (Chennai). It is however interesting that Flextronics had a similar strategy when it acquired Hughes Software Systems (HSS) in the late 1990s. That plan didn't work and Flextronics sold HSS to a private equity player (KKR) in April 2006.

HCL Infosystems (HCL IN, Rs171, NR), which is an HCL umbrella company (promoted by Shiv Nadar), was actually created through a JV with Hewlett Packard (US) called HCL-HP, in 1991 (HCLT exited it in 1997).

Apart from JVs, HCL has made a couple of noteworthy acquisitions. The most considerable was the Apollo Contact Centre in 2001. Apollo was a wholly-owned subsidiary of British Telecom, and with this acquisition, HCL entered the BPO segment with a marquee customer.

Patni

Adding verticals

Patni's (PATNI IN, Rs400, NR) objectives are similar to that of Satyam. It prefers opportunities where more than one objective is met in a single transaction, albeit at tickets greater than US\$100m. It acquired Cymbal for about US\$65m, which added the telecom vertical to its business. We think this is a laudable strategy.

NIIT Technologies

Cautious moves

NIIT Technologies also shares objectives similar to Satyam's. It makes acquisitions, JVs and equity-based structured transactions to meet its objectives of inorganic growth. To date, it has made one material transaction each in the acquisition and JV space. The acquisition of Room Solutions in the UK was primarily to build its insurance solutions capabilities by adding non-life insurance capabilities. Room Solutions was a 135-people firm, with about US\$25m in revenue and valued at roughly 1x revenue plus earn-outs. The transaction was progressively structured, with NIIT Tech buying 51% of the company in May 2006, 24% in October 2006 and the balance 25% is expected sometime in 2007, all based on performance milestones.

In September 2006, NIIT Tech announced a 50:50 JV with Adecco, a large Swiss contract hiring and human resource solutions company with a global presence. The idea is to jointly sell offshore IT services to Adecco's customers as well as to meet Adecco's internal IT requirements. The JV is scheduled to be up by 1Q08 and is expected to generate business of US\$130–140m over the next five years.

Tech Mahindra

Acquire to hedge risks

For Tech Mahindra, M&A is one of its four-pillar core growth strategies. It sees very strong opportunities in inorganic growth. Shortly after gaining independence, it acquired Axes Technologies at about US\$55m, largely to enter industry sub-verticals.

Tech Mahindra's core market segment is providing services to telecom service providers (TSPs). It used the inorganic route to enter a new market segment of telecom equipment providers (TEPs), which is a natural extension to its core market segment. Tech Mahindra would rate itself 8 out of 10 in terms of success in acquiring Axes Technologies. It believes this acquisition was a natural extension of its core strategy and enables the company to hedge its risk to some extent. Today, the TEP business (which was the result of the acquisition) contributes to roughly 7.5% of company revenues. Tech Mahindra has managed to retain most of Axes Technologies' employees (about 800 staff) and the founder now runs the TEP division of Tech Mahindra. This is because Tech Mahindra believes in giving autonomy to its acquisition targets.

In Tech Mahindra, the M&A function is located in the Strategic Initiatives group, which reports to the CEO. It has a dedicated team of 3–4 personnel for strategic initiatives.

i-flex

Filling the gaps

An interesting observation with regard to acquisitions in the case of product companies is that it is relatively easy to spot value. This was clear from our discussion with i-flex solutions (IFLEX IN, Rs 1745, NR) and is quite logical as a products company can be visualised as a collection of bricks in a wall. The wall represents the product suite while the individual bricks represent product modules. Thus, it is relatively easier to add missing bricks, add bricks to increase the wall footprint or to replace existing bricks. Services companies could possibly use this metaphor as well. Extending this argument, it can be deduced that it is relatively easier for products companies to leverage inorganic growth strategies. Clearly, i-flex solutions has recognised this and has the following criteria set when pursuing inorganic growth:

- Open new solution areas.
- Add complementary solutions.
- Open lines of businesses.

At i-flex solutions, the VP of Corporate Development reports to the Executive Management Office comprising the chairman and the various SBU CEOs. The VP of Corporate Development has been with i-flex from the time it was part of Citibank. Although he doesn't have dedicated staff in his team, the VP relies strongly on the federated structure, pulling in people from SBUs and core staff organisation as required.

iGate

Inorganic around core architecture

iGate has a bit different philosophy. Internally, it has formed a business operations architecture called ITOPS or Integrated Technology Operations. Its aim is to build non-linearity to its business by adopting transaction based pricing. It adopted this architecture via the acquisition of Quintent, with its inorganic growth philosophy now focused around ITOPS, such as Loan Pro.

For iGate, interestingly the M&A head operates out of the US and reports to the CFO, and at any given point in time is actively looking at a couple or more opportunities.

Zensar

Building scale

Smaller firms like Zensar use inorganic growth strategies to build front-end capabilities and strengthen services offerings. For example, it purchased OBT, which provided SAP ERP capabilities, adding to its core Oracle ERP capabilities. Zensar is targeting revenue of US\$220m for FY08, out of which it has gone on the offence and said that inorganic growth would constitute 25% of this revenue. It also says it will make a transaction before June 2007. In terms of transaction metrics, Zensar prefers to make multiple small transactions over a single large one and plans to fund roughly 60% of its purchase from cash on its balance sheet and balance spread over following three years' earn-outs. We are fairly impressed with Zensar's strategy.

Key success factors and lessons

In this section, we capture the key lessons and group them across the spectrum, so as to derive key success factors from them.

Give autonomy to target, but monitor sales closely

As discussed above in this report, the most crucial phase of an inorganic growth transaction is the integration phase. One thing is clear – the reason the target was acquired was that it was a successful company, so companies shouldn't try to fix something if it isn't broken! In other words, the target company should be left to thrive in the larger ecosystem, and this is only possible by giving the target as much autonomy as possible, for as long as possible. But this again is a double-edged sword – if too much freedom is given there might be a slip in the key performance metrics (like sales) of the target and failure in realising the planned synergies. This came out in our meetings with Tech Mahindra, i-flex and Infosys.

In the case of Tech Mahindra, the only area where we think it could have done better is in ramping up the sales growth of the target. Its TEP business unit (which was a result of the acquisition), has grown at a slower pace than its core business (TSP). Note that some of this sales growth gap can be attributed to the slower growth rates of telecom equipment providers compared with telecom service providers.

Infosys jokingly says it is interesting to see the 'clash of the business models' when the gap between 'Es' and 'As' widens from pre-acquisition to post-acquisition. Clearly, the industry is going through a learning process on validating sales projections and tying in the downside (and upside) to the promoter's earn-outs.

Cultural alignment is key

Almost all companies interviewed said that the top challenge in making a successful acquisition is in the integration phase, in particular dealing with diverse cultures as most of their transactions are cross border. This was particularly clear in Satyam's experience in its acquisitions of Citisoft and Knowledge Dynamics. Satyam learnt to be more sensitive towards the target company's culture while executing on the integration plan. In Indian firms, asking people to work on weekends is not unusual, but it is in the case of a European/ American firm. We think the key to success is to arrive at a structure and integration plan that safeguards the identity of the target, and does not create internal disparity. Keeping high profile acquisitions as a wholly owned subsidiary for a substantial amount of time is one integration best practice. iGate gave a similar response, mentioning that it is imperative to build trust and confidence in the integration phase.

Watch was the danger signs at the early stage

Infosys has good experience from its only acquisition three years ago of Expert Information Systems in Australia and from four small IP-based purchases. Although it has made only one acquisition, it has come close to at least six other deals, which were later aborted. The decision to abort was tough and originated from the company's belief in executing transactions ruthlessly and without emotion and, more importantly, that one should know when the right time to bail out is. The company views valuations, culture and diligence as three areas governing the success of an acquisition. Going forward, Infosys thinks inorganic growth will become much more important than it is today as concerns over size issues ease.

Preserve target's marquee clients

Patni's acquisition of Cymbal was primarily to gain entry into the telecom sector, by gaining domain expertise and key customers. Patni was fairly successful in gaining expertise in the telecom domain, but due to unforeseen developments, lost out to some extent on the second objective.

One of Cymbal's marquee clients was SBC Communications. When SBC merged with AT&T, the merged entity consolidated its vendors. As a result of this exercise, Patni/Cymbal lost the relationship with SBC/AT&T. This highlights the importance of risk-mitigating strategies to preserve clients. However, it is important to note that it is hard to maintain client relationships when the client itself undergoes M&A activity. In other words, mitigating strategies would have limitations.

Patni believes it is very important to understand why Company A is buying Company B, and why Company B is selling to Company A, what the expected synergies are and, at the end, how the customer will benefit.

Retain target's key people

In a product company acquisition, we believe it is imperative to retain the key engineers who designed the product. In an industry like IT, much of the value lies in its people, and therefore in an acquisition it becomes imperative to retain key personnel.

***Preserve key people
when exiting a JV***

Joint ventures are relatively transient in nature. While there may be mutual objectives at the start of the JV, as time progresses the objectives may fade away, with either of the JV partners buying out the other's share of business. Ironically, this exit typically results in the JV partners becoming competitors. Clearly, when structuring a JV, it is important to have a clear exit strategy in place, at the time of striking the JV. Arguably HCL Technologies (HCLT) could be christened the JV 'master' of India, but it has had its fair share of lessons while creating and exiting JVs. The most prominent example is the exit from the HCL Perot Systems JV, where Perot Systems bought over HCLT's stake. But with that exit, HCLT lost key senior management, including Vineet Nayar, Sujit Bakshi, CP Gurnani, Sanjay Kalra, among others, who eventually became the driving force behind Tech Mahindra, which is now a competitor of HCLT.

***Earn-outs might
hamper change
management***

It is common industry practice to structure acquisitions in the form of an upfront payment plus earn-outs, which are spread over the next few years. These earn-outs are handed to the shareholders/ management of the acquired company on the basis that certain pre-approved financial goals are approved. While there are good reasons to structure deals in this way, there are possible fallouts to such a structure. An earn-out based structure may hamper change in the strategic and operational workings of the target company, if the target's management sticks to its old practices in meeting profit commitments. In addition, the target's management may have a myopic view, in order to meet the set earn-out milestones.

***Inorganic strategy
should be
supported by
appropriate
structure***

In large, highly matured US-based companies, there may be a group of staff of between 5 and 30 people dedicated to acquisitions. Such a group may be known as 'Corporate Development', directly reporting to the CEO's office. Within this group, staff are generally arranged in a matrix structure, with one side representing people supporting different business units, and the other side representing the function they perform (eg, business affairs, finance, legal, HR and integration). This central team can then draw in people from the business unit when undergoing a transaction.

Similar structures exist in the Indian IT industry context, though in a much reduced scale. There is usually a central corporate team, which will essentially drive the strategy, set an operating framework and report to the CEO/COO/CFO. In addition, there is likely to be an 'on-demand' team pulled together from the business unit and central support as and when required. This structure drives ownership at the business unit level, yet adhering to corporate strategy and framework.

Other commentary captured in the management meetings include the following:

- The integration effort for and risk of a US\$10m acquisition is roughly the same as for a US\$50m acquisition, so there lies a management bandwidth leverage by making larger acquisitions.
- Do detailed due diligence. Invest in good lawyers & accountants, and listen to them!
- Don't neglect the integration phase, just because you bought the target cheaply.

Pace-setting inbound acquisitions

As IT MNCs will continue to adopt global delivery model (GDM), we will see continued momentum in inbound acquisitions. This will further set the pace for outbound acquisitions. We believe small and mid-cap IT companies like iGate Global Solutions, Zensar Technologies, Hexaware Technologies and NIIT Technologies are potential acquisition targets. We believe that in future, the average size of inbound acquisition will increase. Typically for such transactions, the two-month acquisition premium ranges between 10% and 70% and the historical PER of the target ranges between 22x and 42x.

We believe the above are good acquisition targets since:

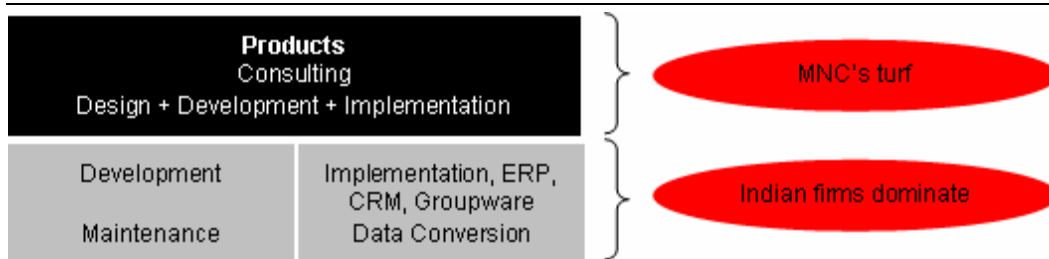
- Their size fits well to the requirements of a large global MNC.
- They have demonstrated success in scaling their business to their current size and have respectable senior management.
- Some are either a part of a large diversified conglomerate or their parent has other business interests.
- Small and mid-size companies, are realising the importance of scale. They should therefore see aligning themselves with MNCs as a valid strategy to compete better with the large Indian IT companies.
- Some have historically traded at relatively low PER multiples.

MNCs will continue to acquire Indian IT companies

We have based our conclusion on the feverish adoption rate of the global delivery model by the IT MNCs. With this adoption comes series of acquisitions made by IT MNCs, gobbling up Indian IT companies. There are several strong reasons for MNCs to acquire Indian IT firms:

- **Service offerings complements:** MNCs cater to higher value-added service offerings like product development, consulting, etc. On the other hand, Indian firms are good at providing application development & maintenance, package implementation, etc., which are positioned lower in the IT services value chain. Thus, the two can complement each other.

Fig 13 Indian and MNC vendors complement each other



Source: Macquarie Research, December 2006

- **Front end – Back-end synergies:** MNCs can leverage on their long-established client relationships to generate demand and use the offshore delivery capabilities of Indian firms for low-cost execution. This will eventually improve margins and competitiveness of the IT MNC.
- **Quick ramp-up:** Last, but most importantly, IT MNCs realise that speed is the essence of doing business, and that it would take a whole lot of time in building offshore capabilities from the ground up. Acquiring an Indian IT company is the quickest route to adopt GDM (Global Delivery Model).

**Two-month
acquisition premium
ranges between
10% and 70%**

Figure 14 gives an idea of the typical acquisition premium over the market price of the target. This data is applicable only in situations where the acquirer and the target are both public listed companies, and therefore represents a small subset of total inbound acquisition.

Fig 14 Deals done at significant premium to the market price

Acquirer	Acquired	Date	Offered price per share (Rs)	Market price per share (Rs)	Premium (%)
EDS	Mphasis BFL	05 April 2006	204.5	173.1*	18.1%
				178.6#	14.5%
Oracle	i-flex	13 September 2006	1475.0	1348.1*	9.4%
				1321.9#	11.6%
Oracle	i-flex	02 August 2005	882.6	709.7*	24.4%
				824.4#	7.1%
Capgemini	Kanbay	26 October 2006	US\$ 29	US\$ 17.1*	69.7%
				US\$ 21.5#	34.9%

* Price two months prior to open offer.

Price one month prior to open offer.

Source: Macquarie Research, December 2006

Target historical PER ranges between 22x and 42x. Average size of the acquisition is on the rise

Figure 15 gives the gist of the traction in recent inbound acquisitions.

Fig 15 Recent inbound acquisitions

Date	Acquirer	Target	Comments
Oct-06	Capgemini	Kanbay	<ul style="list-style-type: none"> Acquired all outstanding shares for US\$ 1.25bn. Historical PER of 34.2x and a P/S of 5.4x Kanbay's staff strength was 5,000
Apr-06	EDS	Mphasis BFL	<ul style="list-style-type: none"> EDS offered Rs204.5/share, an 18.1% premium to the market price of Rs173.1 Offer price implied a historical PER of 22x and P/S of 3.5x Mphasis BFL's staff strength was 11,500
Mar-06	Nvidia Corp	PACE Soft Silicon Pvt Ltd	<ul style="list-style-type: none"> PACE Soft develops graphic design solutions for mobile phones, a segment of significant interest for Nvidia PACE Soft's staff strength was 60
Jan-06	Kohlberg Kravis Roberts & Co (KRR)	Flextronics Software Sys Ltd (FSS)	<ul style="list-style-type: none"> FSS got delisted before KKR bought it Acquired 85% for US\$850m. P/S works out to 9.2x and a historical PER of 41.7x (just before delisting) Flextronic's staff strength was 6,100, of which 85% were in India
Jan-06	Frontline Tech Corp Ltd	Accel Frontline Ltd	<ul style="list-style-type: none"> Acquired 9% for US\$2.67m, valuing the company at US\$29.7m Revenue for FY03/05 was US\$30m Accel's staff strength was 2,000
Nov-05	IBM Corp	Network Solutions Pvt Ltd	<ul style="list-style-type: none"> Approximate revenue of target was US\$30m at the time of acquisition Network Solutions provides infrastructure solutions to over 45 service locations in India Acquisition to help IBM expand infrastructure services offering in India Network Solutions' staff strength was 1,400
Aug-05	Novell Inc	Onward Novell Software(India)	<ul style="list-style-type: none"> Novell bought 50% stake of the JV partner in this sales and distribution arm of Novell in India
Aug-05	Oracle	i-flex	<ul style="list-style-type: none"> Oracle offered Rs882.6/share, a premium of 24.4% to the market price of Rs709.7 Offer price implied a historical PER of 29.3x and P/S of 5.8x i-flex's staff strength was 5,500
Oct-04	Ascential Software Corp	iNuCom Inc	<ul style="list-style-type: none"> Acquired for US\$250,000. Revenues of target not known iNuCom's staff strength was 47
Aug-04	Flextronics International Ltd	Future Software Ltd	<ul style="list-style-type: none"> Price not disclosed. Future software had a revenue of US\$23m Future Software's staff strength was 525
Aug-04	Barclays Bank PLC	Intelenet Global Svcs Ltd	<ul style="list-style-type: none"> Acquired 50% for US\$37m Revenues of Intelenet were US\$25m Intelenet's staff strength was 4,300
Aprl-04	IBM Corp	Daksh eServices	<ul style="list-style-type: none"> According to industry sources deal value was around US\$160m Daksh's staff strength was 6,000
Dec-03	Perot Systems Corp	HCL Perot Systems	<ul style="list-style-type: none"> Acquired 49% stake from JV partner HCL Technologies for US\$67.1m HCL Perot's staff strength was 2,200

Source: Macquarie Research, November 2006

It is interesting to note that there was a newspaper report in end-November 2006 stating that IBM was in talks to acquire Satyam Computer Services. Although this sounds beyond imagination, we see merit in such a transaction. If this goes ahead, it would have substantial ramification on the Indian IT industry, putting huge competitive pressures on companies like Infosys, TCS, Wipro.

Industry recommendations

Below are a set of our recommendations, based on our high-level assessment of individual company's growth strategies and our resulting analysis. The spirit behind making these recommendations is that of collaboration than of critique.

Wipro, TCS, Satyam & Infosys to look into minority equity investments & IP licensing

Indian IT industry leaders like Wipro, TCS, Satyam and Infosys should explore sophisticated inorganic growth tools like MEI (Minority Equity Investments) and inbound IP Licensing to create a favourable ecosystem to promote business growth. These tools are discussed in detail in Appendix 2. Our initial thoughts around probable transactions are as follows:

- ⇒ Infosys taking a minority stake in a small to mid-size systems integration firm based in Italy. The aim would be that these two companies would jointly market and service customers in Italy with the Italian firm primarily responsible for managing customer relations and Infosys responsible for solution delivery. Later, when Infosys moves up the learning curve on how to conduct business in Italy, it could consider a total buyout of the Italian partner. A similar transaction was beautifully executed by TCS when it acquired the balance stake in its Swiss partner TKS.
- ⇒ Wipro investing in a semi government/industry consortium in the Australia, where the objective is to do research & development on eGovernment projects.
- ⇒ TCS striking an inbound licensing deal with a JCA Connector (Java Connector Architecture) vendor like iWay Software to bundle its adapters in SOA (Service Oriented Architecture) and Web Services solutions.
- ⇒ Satyam taking a minority stake in a niche German banking products company, which puts it favourably in pitching for services revenue around that product.
- ⇒ It could also look at minority equity investments in IP-based start-ups say in the telecom sector with an eye to eventually acquire it if it becomes successful.
- ⇒ Lastly, these companies have the wherewithal to form incubation centres along with pure play venture capitalists. The model would be similar to that of Intel Capital.

Wipro to look at product companies like Tally

Wipro has shown dexterity in leveraging inorganic growth tools so far. We believe it is ready to take its leadership position to the next level by making acquisitions in the product space, adding non-linearity to their business. If the valuations are right, it should look at Indian IT product companies like Tally Software or NSE.IT. This way it can quickly get into the products business, and minimise the cultural integration risks. It should look at transactions in the 100-150m range.

Tech Mahindra to acquire in the media or embedded systems space

In our opinion, Tech Mahindra could use inorganic growth tools to derisk its business. Today, it is present in the telecom sector only. This is a double-edged sword. On one side, this strategy gives the company the sharp focus to execute this huge, complex and growing industry vertical. At the same time, it makes them vulnerable to industry risks faced by the telecommunications industry (the threat of internet etc.).

Focus versus diversification is a very interesting debate. Clearly, for small companies trying to enter the mainstream, it is better to have laser focus and flawless execution – as was the case with Tech Mahindra. But to get into the IT industry leader category and to enjoy superior PER valuations, diversification beyond a single industry becomes imperative. Now, it is debatable when the right time to do this is, but our recommendation would be that Tech Mahindra looks at something in related industries where either:

- The skills required to service are similar; or
- Where the telecommunications industry itself is diversifying into.

The industries that come to mind are Embedded Systems, Automotive and Media industries.

Its worth mentioning at this stage that Tech Mahindra has made acquisitions to derisk its business in the past – its acquisition of Axes Technologies was to enter new markets, albeit within the same larger industry. Also, key personnel in Tech Mahindra's recently ramped up senior management come from non-telecom backgrounds, so diversifying beyond telecom would be easier to execute.

TCS to consider a European or Japanese IT services firm

Tata Steel's desired LBO of Corus has set a good precedent that the new India is ready for globalisation and that Indian firms should soar their dreams to reach the erstwhile unattainable heights. Corus' revenue was roughly 4.5x Tata Steel's revenue. TCS sharing the group philosophy of Tata Steel, should make a big ticket acquisition in IT as well.

Target companies would typically have strong European or Japanese presence with deep CxO level client relationships, and should currently have limited India delivery capabilities (implying low valuation & scope of margin improvement). TCS would gain by covering a relatively underserved market and elevating the profile of customer engagements. The target would gain by adopting the global delivery model and thereby achieving operation levers. The target's revenue should be roughly US\$1bn to all the way to multiple times TCS' revenue. Stretching our imagination, in theory, TCS could do an LBO for a company like Atos Origin (present market cap of about US\$2.8bn), raising debt against its future cash flows.

On a conservative side, TCS should look at companies like NSE.IT, which is subsidiary of the National Stock Exchange of India and have leading products & solutions for Stock Exchanges, Clearing Corporations, Brokerage Firms and other organizations in financial sector.

Infosys to look at boutique management consulting firms

We believe Infosys would benefit by being a bit more aggressive in its acquisition approach. Large companies like it should not only look at acquisitions to fill in current market and offering gaps, because there are diminishing returns. Instead they should increase their risk appetite and seriously look at acquisition to break out of the 'linearity' issue. One of the areas where Infosys could make a transaction is in ramping up its management consulting unit. There are many boutique management consulting firms in the US & Europe which would be attractive targets.

Satyam to add Engineering practice or Japanese coverage

Satyam has made the right move in this direction, though the pace could have been better. It has made only 2 transactions in 2005, and none so far in 2006. We are particularly impressed with its move in using inorganic strategies in its journey towards higher value chain. We would like the company to pursue this strategy and probably use the inorganic tools to build out its Engineering practice or probably Japanese coverage.

i-flex to expand product suite to insurance or specialised banking

i-flex has already had a string of inorganic growth transactions over the past two years. The company clearly understands the potential that inorganic growth tools provide to its software products business. It is going through an internal learning phase and we expect the company to get more aggressive in the near future. One of the areas it could consider is to scale out from banking to related areas in the BFSI space. Within BFSI, it could easily have a US\$100m-US\$ 200m transaction in the Insurance products space. It could also look at companies like NSE.IT and even UK-based BPOs specialising in financial services sector like Capita, Liberata and Vertex. Alternatively, i-flex could pick up a minority stake in a start-up that is writing a next-generation payment processing gateway for mobile phones, based on ebXML & SWIFT. Later, based upon its success, it could fully acquire the company.

Appendix 1: Methodology

Objectives

The aim of this report is to answer the following questions:

1. In the short to medium term, can the Indian IT industry sustain current valuations?
2. In the medium to long term, can the Indian IT industry sustain current valuations?
3. What can possibly drive valuations further upwards?
4. What are inorganic growth strategies?
5. What role does inorganic growth strategies have towards long-term profitable growth?
6. How do inorganic growth objectives impact key valuation drivers?
7. Is the Indian IT industry ready for inorganic growth?
8. What are the global best practices around inorganic growth transactions?
9. Which are the companies in the Indian IT industry that have superior inorganic growth strategy?
10. What is our advice to the industry at large and certain players in specific?

Management meetings

We set out to engage ourselves with the Indian IT industry, holding management meetings with a representative set of companies, across large, medium and small caps. The list of companies is provided in Figure 16.

Fig 16 Companies interviewed

S. No	Company	Mkt cap (US\$m) 5-Dec-06	Daily trade value (US\$m)
1	Infosys Technologies	27,654	69.4
2	Tata Consultancy Services	25,748	27.6
3	Wipro Technologies	18,882	16.8
4	Satyam Computer Services	6,724	54.9
5	HCL Technologies	4,575	6.6
6	I-Flex	3,187	5.6
7	Tech Mahindra	3,009	43.1
8	Patni Computer Services	1,240	3.7
9	NIIT Technologies	233	1.1
10	iGate	168	0.1
11	Zensar	120	0.2

Source: Bloomberg, Macquarie Research, December 2006

In addition, we also interviewed a large global IT consulting firm with a substantial presence in India, having over 15,000 people working in six Indian cities.

Our discussions were centred on the following inorganic growth options:

- Minority equity investments
- Acquisitions
- Strategic partnerships
- IP licensing

Apart from gathering qualitative data, we administered a structured questionnaire shown below.

Questionnaire

1. What are your prime objectives behind making an acquisition? Please think in the direction of margin and revenue growth strategies and cover the following points:
 - a. Non linear growth
 - b. Productising services, IP-based business
 - c. Branding
 - d. Management consulting
 - e. Products
 - f. Geographical coverage
 - g. Services offerings
2. What has been your inorganic growth experience so far? What was the target's revenue, number of people, deal structure, purchase price/revenue multiple, objectives, etc?
3. What lessons have you learnt from inorganic growth transactions so far?
4. Do you have a formal corporate development/inorganic growth/M&A organization structure? Please describe it briefly.
5. In the 'Acquisition Aggressiveness' spectrum, if Oracle is at 10 and SAP at 1, how would you rank your company?
6. How would you rank your company in terms of 'Organisational Capability' to integrate an acquisition? Please rate on a scale of 1 to 10, 10 being highly capable.

Appendix 2: Inorganic options

Traditionally, inorganic growth means acquisitions. But in reality, inorganic growth goes beyond this. This section covers a comprehensive constitution of inorganic growth strategies, namely:

- Minority equity investments
- Acquisitions
- Strategic partnerships
- Intellectual property licensing

1. Minority equity investment

The primary objective of minority equity investments (MIE) is to invest in companies with core technologies and offerings that will enhance the investing company's long-term strategic initiatives and market offerings. Traditionally, the quantum of investment in this category ranges between 5% and 10% of equity and includes investing in public and privately held companies.

Many times, the investing company has a separate division that is tasked with this activity, and in some cases, this activity is parked within 'partner development' initiatives. This tool is used quite effectively by leading MNCs like Intel, Cisco, Nokia, SAP, etc., but is not heard of in the Indian IT context. This is primarily due to the relative maturity of the Indian IT industry. But with time, we believe the Indian IT industry will increase adoption of MIE.

Such investing is typically made collaboratively with venture capital funds. An investment of such nature by an IT company usually provides market leverage and technology leverage to a venture capitalist's (VC) portfolio company. The IT company view VCs as partners in this initiative, with the VC bringing in deal flow and setting the valuation. IT companies seldom lead a funding round; they typically fund in Rounds B, C or D.

From a process perspective, the lifecycle of a MEI is:

1. Investment
2. Management
3. Disposition

In line with this, there exist operational policies for each of the phases.

Within the investment phase, the key process is actually making an investment. We discuss this process briefly. The investment business case comprises of the following:

- Market/business unit rationale
- Technology rationale
- Financial rationale
- Legal structure

With all of the above in place, the approval process starts with the central corporate development or strategic initiatives team vetting it and subsequently getting approved by the board of directors. Upon approval, the transaction is processed legally and the money wired.

2. Acquisitions

This topic is the most widely known and represents the core of the inorganic growth tools. This was discussed in detail this report, but quite simply, it means buying majority equity stake in public or private companies. Broadly, the steps in a transaction are:

- Strategy review
- Landscape scan
- Business planning
- Transaction execution
- Acquisition integration

The phases of Business planning and acquisition integration are discussed at length in Appendix 4.

3. Strategic partnerships

In a lighter vein, the underlying principal behind strategic alliances is: *“Go to your competitor and find out a way to work together.”* Many times, the genesis of a strategic alliance is breached patents. This is true in the world of technology world; a number of global examples substantiate this. Stating this does not make the strategic nature of this tool any less important. Look at the business impact and change in the competitive landscape when the CEO of Microsoft shook hands with the CEO of Sun Microsystems; or when Microsoft went on the road with Novell/Linux.

In the context of Indian IT companies, this tool can be deployed in a couple of ways. For example, in bidding syndicated outsourcing bids; in geographical complementary competitors; in service line complementary competitors (management consulting + IT consulting), etc.

4. Intellectual property licensing

A lesser-known tool but globally respected, intellectual property (IP) licensing can add high operating leverage. To put simply, it means that a large company strikes an inbound IP licensing deal with a relatively small company (implying some kind of exclusivity) and bundle the third-party IP in its core market offering so as to give an end-to-end solution to the customer.

Now this tool can be of strategic importance to Indian IT companies in its current phase of evolution. Today's IT industry in India is primarily led by services, in that, it integrates third-party hardware, software and networking products, adds some custom software development, and provides an end-to-end solution to the customer. However, many times it does not earn on the products sale. This coupled with the fact that the Indian IT industry needs to break out from the linearity model, makes IT companies amenable to the use of IP licensing as an effective inorganic growth tool.

For example, Tech Mahindra could license subsystems within the OSS/BSS (core telecom solutions) stack and combine them in its own stack. This should result in higher margins, help build non-linearity and make the solution more supportable. Similarly, TCS could have an inbound licensing deal with a JCA Connector (Java Connector Architecture) vendor like iWay Software to bundle its adapters in SOA (Service Oriented Architecture) and Web Services solutions.

There are some key considerations that must be taken into account when striking an inbound IP licensing deal:

- Scope of rights
- Durability to rights
- Unencumbered rights
- Assured rights
- Support

Appendix 3: Outbound transactions

Fig 17 TCS – key transactions

Date	Target	Target Revenue	Target revenue as % of acquirer's revenue	Amount paid	Amount paid / Target's revenue	No. of people in target company
1 Nov-06	TCS Management	US\$4.3m	0%	US\$13.0m	3.0	35
	<ul style="list-style-type: none"> Acquire Australian clients Competencies in high-end business consultancy 					
2 Nov-06	TKS-Teknosoft	US\$57.8m	1%	US\$80.4m	1.4	115
	<ul style="list-style-type: none"> Expand product portfolio by getting rights to Quartz and ownership of Alpha and e-portfolio Presence in Switzerland and France 					
3 Nov-05	Comicrom S.A., Chile	US\$35.5m	0%	US\$23m	0.6	1257
	<ul style="list-style-type: none"> Entry into Latin America Obtain language skills Use Chile as a base to serve Spain Obtain payment processing platform 					
4 Oct-05	FNS	US\$22m	0%	US\$26m	1.2	190
	<ul style="list-style-type: none"> To fill the core banking solution gap in its BFSI vertical 116 customers in 35 countries TCS already had expertise in implementing it 					
5 Oct-05	Pearl group BPO	US\$95.1m	4%	US\$94.7m	1.0	950
	<ul style="list-style-type: none"> To get life and pension outsourcing business from Pearl To gain entry into UK 					
6 May-05	SITAR	ND	NA	US\$4.8m	NA	ND
	<ul style="list-style-type: none"> Acquire blue-chip European customers like Ericsson, IKEA, Vattenfall and Hutchison 					
7 May-04	Phoenix Global Solutions	US\$10.4m	1%	US\$13m	1.3	350
	<ul style="list-style-type: none"> Acquire expertise in insurance 					
8 May-03	AFS	US\$4.7m	0%	US\$5.1m	1.1	316
	<ul style="list-style-type: none"> BPO expertise in Airline and Hospitality sector 					
9 Oct-01	CMC Ltd	US\$146m	ND	51% for US\$33.8m	0.5	3100
	<ul style="list-style-type: none"> Business capabilities in India, Government sector 					

Note: ND – Not disclosed; NA – Not applicable or insufficient information

Source: Macquarie Research, November 2006

Fig 18 Wipro – key transactions

	Date	Target	Target Revenue	Target revenue as % of acquirer's revenue	Amount paid	Amount paid / Target's revenue	No. of people in target company
1	Oct-06	3D Networks-India	US\$36m	0%	US\$23m + earn-outs	0.64	270
		<ul style="list-style-type: none"> Expertise in convergence solutions 					
2	Sep-06	Hydrauto	US\$112.2m	0%	US\$30.6m	0.27	612
		<ul style="list-style-type: none"> Expertise in hydraulic cylinders, solutions for excavators, dumpers, trucks, etc. 					
3	Jun-06	Enabler	US\$37.7m	0%	US\$51m + earn-outs	1.35	300
		<ul style="list-style-type: none"> Capability in retek and package integration Entry into Latin America 					
4	Jun-06	Saraware	US\$16.8m	0%	US\$40.4m	2.40	180
		<ul style="list-style-type: none"> Expertise in 3G and mobile security 					
5	May-06	Quantech Global Services	US\$12.7m	0%	ND	NA	445
		<ul style="list-style-type: none"> Engineering services capabilities in automotive vertical 					
6	Feb-06	cMango	US\$13m	0%	US\$20m + earn-outs	1.54	120
		<ul style="list-style-type: none"> Expertise in Business service management solutions from BMC Software Inc. 					
7	Dec-05	mPower and MPACT Technology Services	US\$18m	0%	US\$28m	1.6	300
		<ul style="list-style-type: none"> Expertise in payment space 					
8	Dec-05	New Logic Technologies	US\$17m	1%	US\$56m	3.3	125
		<ul style="list-style-type: none"> Wireless IP and RF space 					
9	Apr-03	NerveWire	US\$20m	1%	US\$18.7m	0.94	90
		<ul style="list-style-type: none"> Gaining 40 client relationships in US Entry into high-end consulting of security services, private client, trading/investment management, and high-tech industries 					
10	Nov-02	American Management System	ND	NA	US\$26m	NA	ND
		<ul style="list-style-type: none"> Expertise in energy vertical 					
11	Sep-02	R&D business of Ericsson India	ND	NA	US\$5.73m	NA	ND
		<ul style="list-style-type: none"> R&D capabilities in telecom domain 					
12	Jul-02	GE Medical System's IT division	ND	NA	US\$6.2m	NA	ND
		<ul style="list-style-type: none"> Expertise in healthcare vertical 					
13	Oct-01	Spectramind	US\$11.6m	2%	US\$10m for 24% in Oct-01, US\$83m for 66% in Jul-02	3.5	2170
		<ul style="list-style-type: none"> Entry into BPO space 					

Note: ND – Not disclosed; NA – Not applicable or insufficient information

Source: Macquarie Research, November 2006

Fig 19 Infosys – key transactions

Date	Target	Target Revenue	Target revenue as % of acquirer's revenue	Amount paid	Amount paid / Target's revenue	No. of people in target company
1	Jan-04 Expert Information Services <ul style="list-style-type: none"> To gain business of telecom clients in Australia To acquire new clients in Australia 	US\$36.3m	0%	US\$24.1m	0.66	330

Source: Macquarie Research, November 2006

Fig 20 Satyam – key transactions

Date	Target	Target Revenue	Target revenue as % of acquirer's revenue	Amount paid	Amount paid / Target's revenue	No. of people in target company
1	Jul-05 Knowledge Dynamics <ul style="list-style-type: none"> Expertise in high-end analytics Product in analytics – eye decisions 	US\$3.3m	0%	US\$3.3m	1.0	70
2	Apr-05 Citisoft <ul style="list-style-type: none"> Domain expertise for buy side 75% of the global investment management firms as clients 	US\$16.8m	2%	US\$38.7m	2.3	63

Source: Macquarie Research, November 2006

Fig 21 Patni – key acquisition

Date	Target	Target Revenue	Target revenue as % of acquirer's revenue	Amount paid	Amount paid / Target's revenue	No. of people in target company
1	Jun-06 ZaiQ Technologies <ul style="list-style-type: none"> Acquire application-specific integrated circuit (ASIC) design capabilities and intellectual property Expertise in field-programmable gate array (FPGA) and system-on-a-chip (SoC) technologies 	Negligible	0%	US\$0.5m	NA	ND
2	Nov-04 Cymbal Corporation <ul style="list-style-type: none"> Entry into telecom vertical 	US\$32 m	10%	US\$68m	2.1	600
3	Apr-03 The Reference Inc. <ul style="list-style-type: none"> Acquisition of clients in the financial services industry in the US 	US\$8.5m	3%	US\$7.5m	0.9	44

Source: Macquarie Research, November 2006

Fig 22 HCL Technologies – key transactions

Date	Target	Target Revenue	Target revenue as % of acquirer's revenue	Amount paid	Amount paid / Target's revenue	No. of people in target company
1	Feb-05 AnswerCall Direct • Expertise in media and transportation verticals	ND	NA	US\$7.4m	NA	190
2	Oct-04 Shipara Technologies Ltd • Competency in aviation vertical	ND	NA	ND	NA	ND
3	Jul-02 Aquila • To acquire engineering software & services expertise	US\$0.67 m	0%	Initial 35.5% for US\$1.23m	5.1	51
4	Jun-02 Gulf Computers Inc • Client relationship in Middle East • Expertise in business process automation and development management	US\$13m	4%	US\$9.8m	0.8	ND
5	Dec-01 Apollo Contact Centre • Business from BT • Entry into Europe to service other clients	ND	NA	US\$12.7m	NA	400
6	Sep-01 Deutsche Software • Stepping stone into the BFSI vertical	US\$25m	8%	US\$25m for 51% and about 4.5% stake in HCL Tech for the remaining 49%	2.0	450

Note: ND – Not disclosed; NA – Not applicable or insufficient information

Source: Macquarie Research, November 2006

Fig 23 NIIT Technologies – key transactions

Date	Target	Target Revenue	Target revenue as % of acquirer's revenue	Amount paid	Amount paid / Target's revenue	No. of people in target company
1	May-06 Room Solutions • UK general and re-insurance market	US\$25m	18%	US\$25m	1.0	120

Source: Macquarie Research, November 2006

Fig 24 Tech Mahindra – key acquisition

Date	Target	Target Revenue	Target revenue as % of acquirer's revenue	Amount paid	Amount paid / Target's revenue	No. of people in target company
1	Nov-05 Axes Technologies • To provide competencies to service telecom equipment manufacturers	US\$28m	10%	US\$54m	1.9	850

Source: Macquarie Research, November 2006

Fig 25 iFlex – key transactions

Date	Target	Target revenue		Amount paid	Amount paid / Target's revenue	No. of people in target company
		Target Revenue	as % of acquirer's revenue			
1	Aug-06 Mantas • Specialised money-laundering and compliance platform	US\$35m	10%	US\$122.6m	3.5	150
2	Jun-05 Castek • Platform to serve property & casualty insurance industry	It was acquired progressively				10
3	Nov-04 Equinox • Customer acquisition and knowledge process outsourcing (KPO) services to mortgage banking industry	US\$5m	1%	US\$10m	2.0	300
4	Dec-03 SuperSolutions • Expertise in consumer lending	US\$12m	7%	US\$11.5m	1.0	50

Source: Macquarie Research, November 2006

Fig 26 iGate – key transactions

Date	Target	Target revenue		Amount paid	Amount paid / Target's revenue	No. of people in target company
		Target Revenue	as % of acquirer's revenue			
1	Apr-06 Loan Pro • Expertise in mortgage services space	ND	NA	ND	NA	ND
2	Jun-04 Symphony Interactive • Expertise in BFSI vertical	US\$10m	NA	ND	NA	40
3	Oct-03 IdeaSpace Solutions • Acquisition of ING Vysya Bank as client	ND	NA	US\$1.69m	NA	170
4	Jul-03 Quintant • For its assets	ND	NA	51% for US\$2m	NA	ND
5	May-03 IT & T Technology Services	ND	NA	US\$4.7m	NA	ND
6	Jan-03 eJiva	ND	NA	US\$10m	NA	ND

Note: ND – Not disclosed; NA – Not applicable or insufficient information

Source: Macquarie Research, November 2006

Fig 27 Zensar – key transactions

Date	Target	Target revenue		Amount paid	Amount paid / Target's revenue	No. of people in target company
		Target Revenue	as % of acquirer's revenue			
1	Jan-06 Seacom • Point of sale software for retail outlets	Negligible	0%	Negligible	NA	ND
2	Dec-05 OBT • Expertise in SAP implementation	US\$4m	4%	US\$3.1m	0.8	150

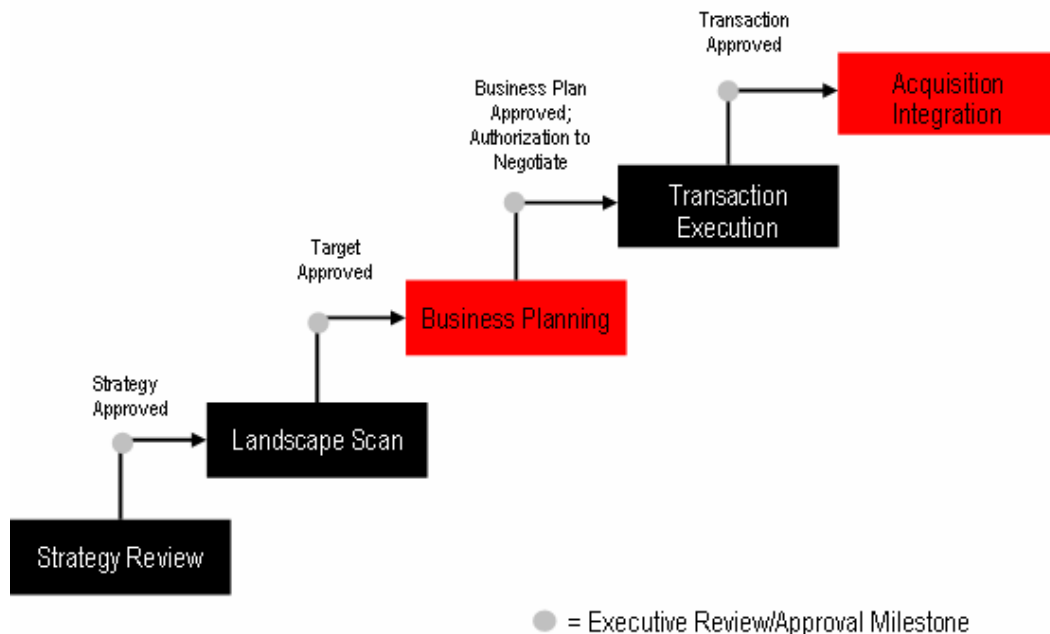
Source: Macquarie Research, November 2006

Appendix 4: Global Best Practices

Executing an acquisition is a large and complex project. In this section, we discuss some of the global best practices around acquisitions.

Figure 28 illustrates the phases in an acquisition transaction.

Fig 28 Phases in an acquisition transaction



Source: Macquarie Research, December 2006

In our discussions with the IT industry, we gauged that the Business Planning and Acquisition Integration phases are the two most critical phases in an acquisition. These are also the two areas that require input from a global best practice perspective. We will discuss them in the following pages.

Acquisition Business Planning Phase

This phase starts after the Strategy Review and Landscape Scan phase. At this stage, the acquirer has finalised the top two or three targets, and goes into details of the selected few, individually.

Acquisition Business Planning is all about generating an operating plan for the combined entity, post acquisition. It basically takes the target operating plan today, and the acquirer's business plan today, and generates the combined operating plan capturing the planned synergies. Business planning is a very important KSF towards the success of the acquisition. It covers many dependencies, gaps, which sine qua non go a long way in making a successful acquisition.

Importance of Business Planning to the acquirer

- Helps to formalise vision and ensure strategic alignment.
- Improves likelihood of realising financial return.
- Enables smoother integration experience.
- Accelerates time to realise business goals.
- Helps to reduce risk through awareness and proactive management.

Importance of Business Planning to the target

- Provides guidance on how to succeed as a part of acquirer.
- Focuses team on meaningful execution tasks quickly.
- Enables a smoother integration experience.

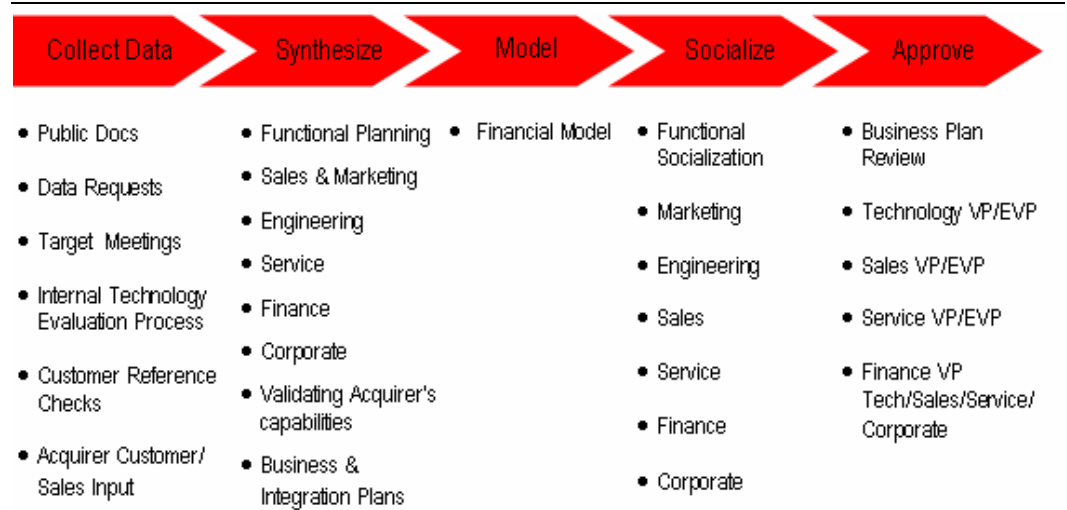
Objectives of Business Planning

- Communicating the long- term vision of what success looks like.
- Understanding the whole acquirer ecosystem go-to-market picture.
- Identifying revenue/cost synergies.
- Identifying risk from unique operational requirements or execution gaps in capabilities.
- Understanding areas where investment is required.
- Defining short- and long-term goals and objectives.
- Identifying critical success factors.

Tasks within Business Planning:

The Business Planning phase can be broken down into the several tasks:

Fig 29 Tasks within the Business Planning phase



Source: Macquarie Research, December 2006

Ingredients of a Business Plan

In a comprehensive Business Plan, the following topics should be covered.

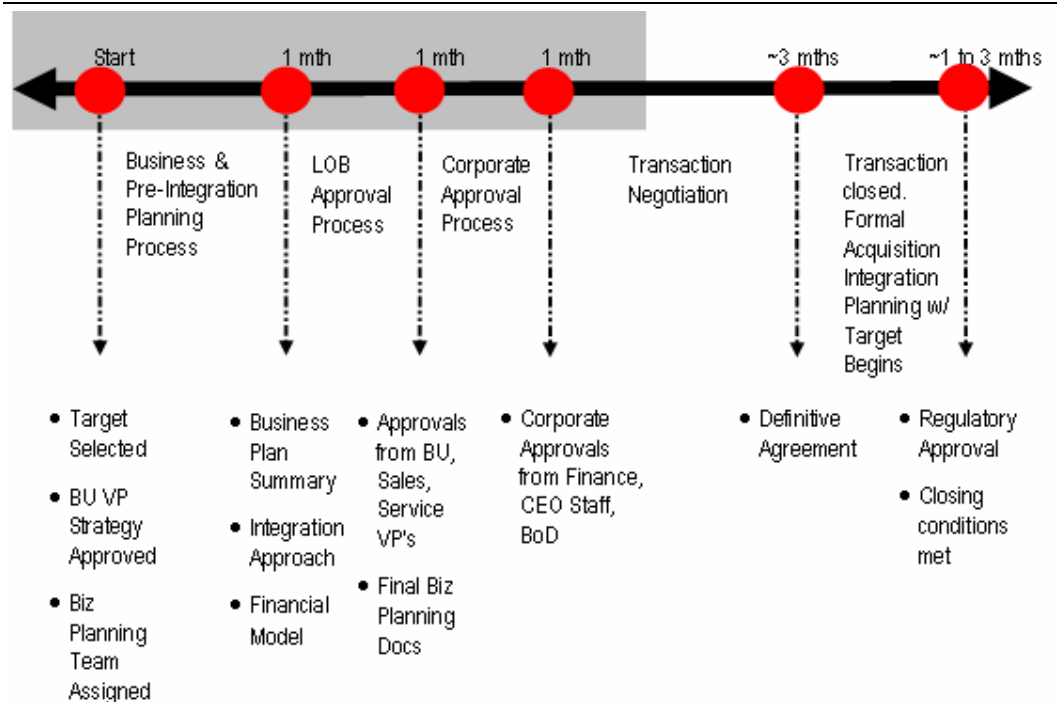
- Two-Page summary
- Background
 - ⇒ Market dynamics
 - ⇒ Business requirements
 - ⇒ Alternatives considered
 - ⇒ Acquisition candidates
 - ⇒ Why the target?
 - ⇒ Business risks
- Business summary
 - ⇒ Target's overview
 - ⇒ Product history
 - ⇒ Analyst competitive quadrant (eg. Gartner, IDC)
 - ⇒ Product overview
 - ⇒ Market verticals
 - ⇒ Balance sheet
 - ⇒ Historical & projected income statement
- Acquisition overview
 - ⇒ Acquisition integration strategy
 - ⇒ Acquisition integration highlights
 - ⇒ Acquisition integration proposal
 - ⇒ Current organisational structure
 - ⇒ Proposed integrated organisational structure

- ⇒ Integration risks
- ⇒ Critical success factors
- Financial summary
 - ⇒ Balance sheet
 - ⇒ Historical & projected income statement
 - ⇒ Financial model assumptions
 - ⇒ Key revenue assumptions
 - ⇒ Projected income statement by quarter
 - ⇒ Projected income statement by fiscal year
 - ⇒ Discounted cash flow sensitivity analysis
 - ⇒ Valuation matrix
- Appendix
 - ⇒ Valuation analysis

Business Planning process timeline

Figure 30 captures the estimated timelines of the business process phase, for a medium size (relative to the acquirer) acquisition.

Fig 30 Business planning process timeline



[Codename] Estimated Close Date: xxFYxx

Source: Macquarie Research, December 2006

The Two-Page Summary:

Another best practice is to create a two-page summary out of the business plan, and use it to succinctly present to the board of directors of the acquiring company in a GO/NOGO meeting. This summary should capture the following data:

- Target's business description
- Acquirer shareholder's value proposition
- Workforce distribution (geographic & role wise)
- Key management personnel & their ownership
- Products & competition
- Acquisition risks
- Integration highlights (transitional employees, approach)
- Valuations
 - ⇒ Comparable transactions EV/EBITDA, P/S
 - ⇒ Enterprise Value from DCF method with discount & terminal growth rate sensitivity analysis)
 - ⇒ Enterprise Value from equity value – net cash
 - ⇒ Alternates (with why rejected)
 - ⇒ Financials (following three years, past three years, EPS impact)
 - ⇒ Previous three months stock performance
 - ⇒ Board of directors

Tips when writing a business plan

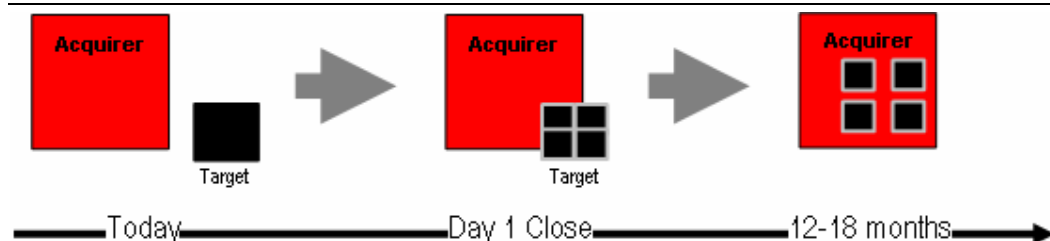
- ⇒ A business plan should contain fair and objective analysis
- ⇒ Shareholder obligation to recommend the right thing for the acquirer
- ⇒ Always wear two hats: Advocate and Critic
- ⇒ Surface concerns and issues as you find them
- ⇒ The right answer may be "No"
- ⇒ Make sure you have a Plan B
- ⇒ Developing Plan B in parallel saves time

Acquisition Integration Phase

This phase is by far the most elusive phase in an acquisition transaction, and is the prime reason behind the success and the failure of an acquisition.

The high-level objective of the integration phase is to amalgamate the target company with the acquirer, as seen in Figure 31.

Fig 31 Integration objective



Source: Macquarie Research, December 2006

The key deliverables of this phase are:

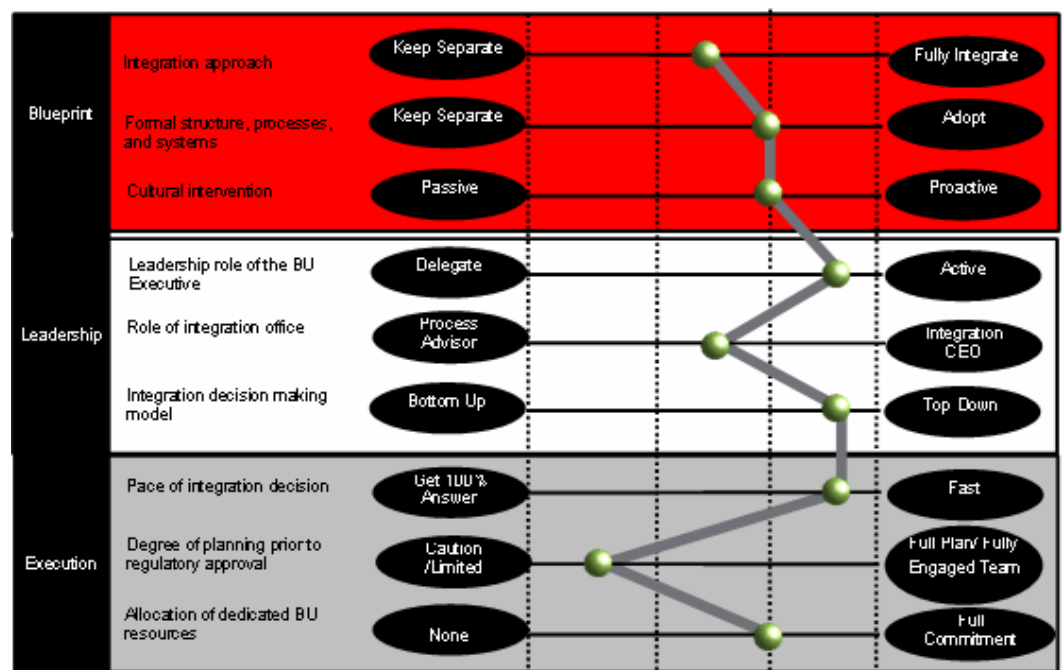
- Integration design choices
- Phased integration strategy
- Integration PMO structure

Integration Design Choices

The big question is, should the acquired company be kept totally separate from the acquirer, or should it be completely merged. The real answer is that one has to selectively treat different interfaces, since different interfaces have different operating upside (ie. the synergies that need to be achieved) and different operating downside (shocks that need to be avoided). Key integration highlights include: Approach; Organisation; Leadership; Revenue; Offering Roadmap; People & Culture; Workplace; Change Management and Systems & Processes.

The framework in Figure 32 can be used to design an integration strategy, shifting the different levers depending on the specific situation, and thereby making integration design choices. This chart can then be a part of the board of directors' approval package.

Fig 32 Integration Design Choices



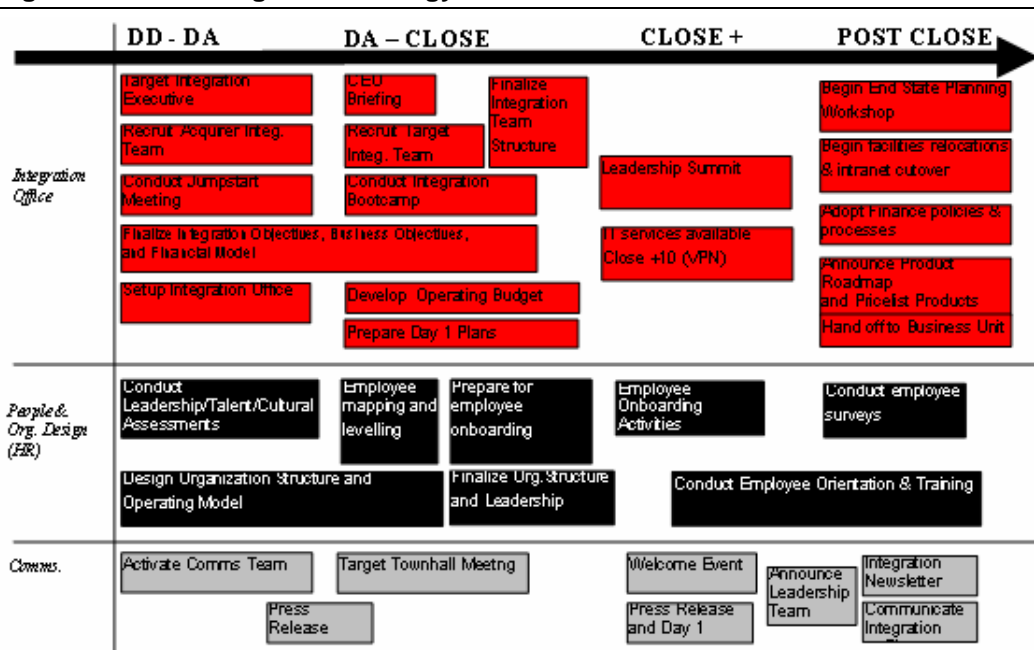
Source: Macquarie Research, December 2006

Phased Integration Strategy

Once the integration design choices are made, we drill down into the integration strategy covering what tasks need to be done by which stakeholder (Integration Office, HR & Communications) and at what phase. The phases are:

- DD - DA: That is, Due Diligence to Definitive Agreement
- DA - Close: That is, Definitive Agreement to deal close
- Close + : Immediately after deal close
- Post Close: For couple of quarters after close, again depending upon the situation and integration design choices.

Fig 33 Phased Integration Strategy

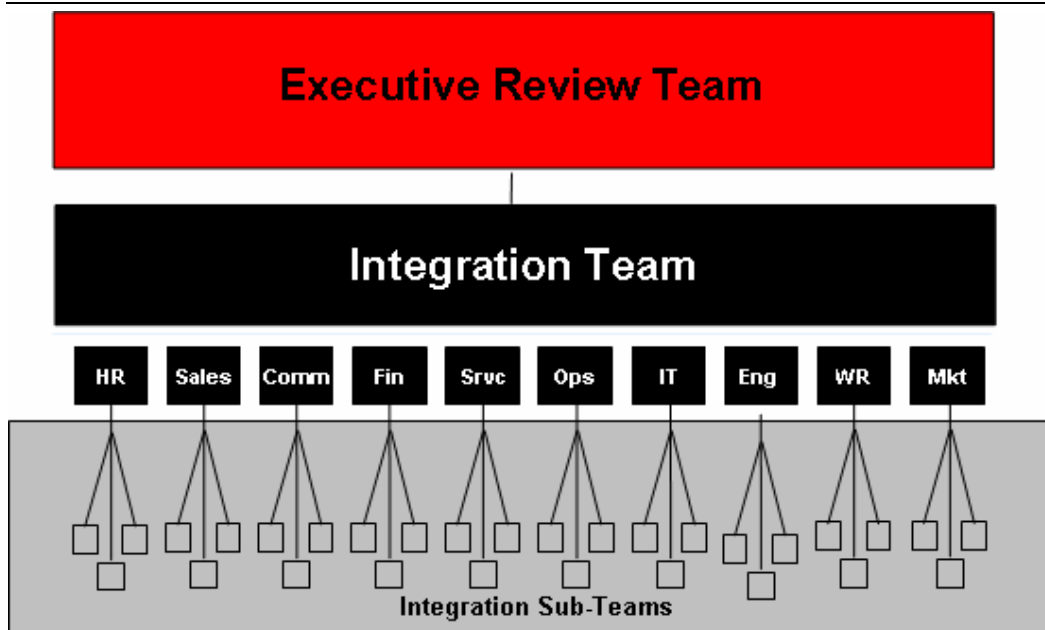


Source: Macquarie Research, December 2006

Integration Project Management Office

It is very important that senior management is involved throughout the integration phase. We can draw the concept of project management office (PMO) from the project management discipline and apply in the integration phase. Figure 34 shows is an example of the integration PMO structure, showing integration sub-teams and reporting relationship. The executive review team should meet periodically and should comprise of the CEO/COO, CFO and the BU (business unit) deal sponsor.

Fig 34 Integration PMO Structure



Source: Macquarie Research, December 2006

INDIA

TCS

5 December 2006

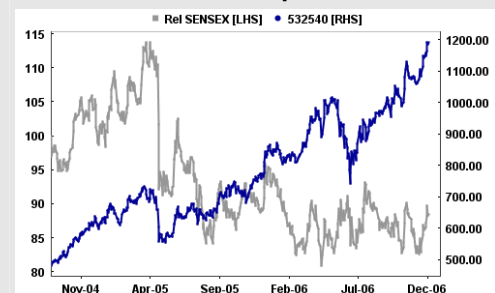
TCS IN Not rated

Stock price as of 04 Dec 06	Rs	1186.8
Market cap	US\$m	25924
30-day avg turnover	\$m	29.2
Number shares on issue	m	978.61

Investment fundamentals

Year end 31 Mar		2005	2006
Total Revenue	m	80511	112360
EBIT, rep	m	21226	30788
EBIT rep growth	%	nmf	45%
PAT, rep	m	20029	27139
EPS, rep	Rs	18.3	26.8
PE, rep	x	64.9	44.3
ROCE	%	110%	68%
ROE	%	109%	61%
Net debt/equity	%	-0.1	-0.2
Price/book	x	34.3	20.7

BOM.TCS rel SENSEX performance



Source: ASX, Macquarie Research, December 2006 (all figures in INR unless noted)

Analyst

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The big daddy

Company profile

TCS is the largest IT services firm in India, clocking US\$3bn in revenue in FY03/06. TCS is part of the Tata group, a diversifier conglomerate comprising 96 companies with total revenues in excess of US\$21bn. It is also one of the oldest IT firms in India, having been incorporated in 1968.

It has presence in 35 countries spanning six continents. Its services are structured around 12 industry verticals and six services line. IT services delivery work is done from 42 delivery centres in 11 countries, including 22 in India. These delivery centres employ the bulk of its more than 78,000 employees.

Operational and performance analysis

- Offshore revenues as a proportion of total revenues appear to have room to go up to affect gross margin positively.
- The company could further flatten the base of its employee pyramid by 5–10% to achieve margin expansion.
- The company is doing well on the employee retention front and has a lower attrition rate than its peers.

Fig 1 Operational parameters

	FY06	1Q FY03/07	2Q FY03/07
Onsite Billing Rate (US\$/hr)	ND	ND	ND
Offshore Billing Rate (US\$/hr)	ND	ND	ND
SG&A as a % of Revenue	19.9%	20.6%	19.8%
Offshore Proportion (% of revenue)	41.0%	41.3%	44.0%
Blended Utilisation (% incl. trainees)	75.8%	77.3%	75.2%
Employee % with 0-3 yrs' experience	49%	50%	52%
Attrition Rate	9.9%	10.6%	10.6%

Source: Company data, December 2006

- As a consequence of the two points above, the company has a lower EBIT/employee compared to its peers.
- The company has a highly evolved inorganic growth strategy.

Fig 2 Performance parameters

	FY06	1Q FY03/07	2Q FY03/07
Annualized rev per salesperson (US\$k)	ND	ND	ND
Annualized rev per employee (US\$k)	44.3	51.7	51.1
Annualized rev per client account (US\$m)	3.9	4.8	5.4
Non-top-10 client growth, ttm (%)	37.2%	66.5%	57.0%
Annualized EBIT per employee (US\$)	11,393	12,648	13,013

Source: Company data, December 2006

INDIA

Infosys

6 December 2006

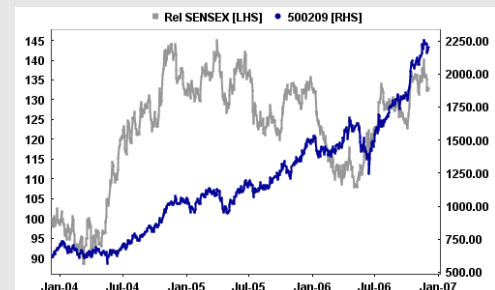
INFO IN Not rated

Stock price as of 04 Dec 06	Rs	2193.8
Market cap	US\$m	27215
30-day avg turnover	\$m	68.0
Number shares on issue	m	555.79

Investment fundamentals

Year end 31 Mar		2003	2004	2005	2006
Total Revenue	m	36227	47609	68600	90280
EBIT, rep	m	11597	14712	22300	27370
EBIT rep growth	%	23%	27%	52%	23%
PAT, rep	m	9579	12435	19040	24210
EPS, rep	Rs	17.8	21.3	34.5	40.7
PE, rep	x	122.9	103.2	63.6	53.9
ROCE	%	47%	48%	53%	45%
ROE	%	39%	41%	45%	40%
Net debt/equity	%	-0.5	-0.8	-0.5	-0.6
Price/book	x	40.6	35.9	22.6	17.6

BOM.INFO rel SENSEX performance



Source: ASX, Macquarie Research, December 2006 (all figures in INR unless noted)

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Growing without buying

Company profile

Infosys, India's second-largest IT services firm founded in 1981, employs more than 66,000 people and has 40 software development centres currently. It has 39 sales offices spread over 18 countries.

The company's revenues and profit have grown at CAGRs of 38% and 36%, respectively, over the past five years.

Operational and performance analysis

- The company has the highest proportion of employees with 0–3 years' experience.
- It also has the highest proportion of revenues coming from offshore, leading to better margins.

Fig 1 Operational parameters

	FY06	1Q FY03/07	2Q FY03/07
Onsite Billing Rate (US\$/hr)	63.9	63	63.9
Offshore Billing Rate (US\$/hr)	23.2	23.3	23.8
SG&A as a % of Revenue	14.30%	15.30%	14.90%
Offshore Proportion (% of revenue)	50.70%	49.50%	49.70%
Blended Utilisation (% incl. trainees)	69.70%	71.10%	67.50%
Employee % with 0-3 yrs' experience	59%	59%	59%
Attrition Rate	11.20%	11.90%	12.90%

* For some undisclosed data, we have made assumptions which may not tally with the actual figure.

Source: Company data, Macquarie Research, December 2006

- Infosys' annualised revenue per client is one of the highest in the industry, and is being reflected in its low SG&A expenses as a percentage of revenues.
- Due to its management quality and track record, the company enjoys the highest PER multiples in the industry.
- Historically, the company has grown organically, delivering the highest five-year CAGR.

Fig 2 Performance parameters

	FY06	1Q FY03/07	2Q FY03/07
Annualized rev per salesperson (US\$k)	4,663	5,074	5,679
Annualized rev per employee (US\$k)	40.8	45.2	45.1
Annualized rev per client account (US\$m)	4.7	5.6	6.3
Non-top-10 client growth, ttm (%)	41.90%	48.40%	44.20%
Annualised EBIT per employee (US\$)	11,951	13,628	14,157

* For some undisclosed data, we have made assumptions which may not tally with the actual figure

Source: Company data, Macquarie Research, December 2006

INDIA

Wipro

5 December 2006

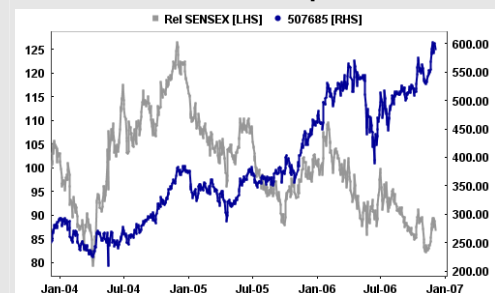
WPRO IN Not rated

Stock price as of 04 Dec 06	Rs	600.9
Market cap	US\$m	19279
30-day avg turnover	\$m	16.1
Number shares on issue	m	1,434.56

Investment fundamentals

Year end 31 Mar		2003	2004	2005	2006
Total Revenue	m	40403	51882	72762	102641
EBIT, rep	m	9370	10855	17618	23428
EBIT rep growth	%	-2%	16%	62%	33%
PAT, rep	m	8024	9061	14826	19988
EPS, rep	Rs	5.8	5.9	10.3	13.5
PE, rep	x	103.3	101.2	58.4	44.6
ROCE	%	31%	31%	41%	41%
ROE	%	28%	27%	36%	36%
Net debt/equity	%	-0.3	-0.6	-0.5	-0.7
Price/book	x	25.1	23.9	17.3	13.3

BOM.WPRO rel SENSEX performance



Source: ASX, Macquarie Research, December 2006 (all figures in INR unless noted)

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On a buying spree

Company profile

Wipro is India's third-largest IT services firm and the world's largest independent IT R&D services provider. It is one of the three largest offshore BPO service providers in the world.

The company employs more than 37,000 people. It is the world's first CMMi Level 5 certified software services company and the first outside the US to receive the IEEE Software Process Award.

Operational and performance analysis

- There appears to be further scope to increase the proportion of offshore revenue to total revenue to around 50%.
- The company needs to recruit more employees with 0–3 years' experience to bring down costs.

Fig 1 Operational parameters

	FY06	1Q FY03/07	2Q FY03/07
Onsite Billing Rate (US\$/hr)	61.9	62.4	62.8
Offshore Billing Rate (US\$/hr)	24.0	24.2	23.9
SG&A as a % of Revenue	9.4%	9.5%	9.4%
Offshore Proportion (% of revenue)	47.4%	46.6%	45.1%
Blended Utilisation (% incl. trainees)	70.0%	72.0%	69.0%
Employee % with 0-3 yrs' experience	41%	43%	45%
Attrition Rate	15.0%	17.0%	18.0%

Source: Company data, December 2006

- Compared to its peers, the company ranks highly on revenue per salesperson parameter.
- From past acquisition history and our meeting with management, it can be inferred that Wipro has one of the most sophisticated inorganic growth strategies.

Fig 2 Performance parameters

	FY06	1Q FY03/07	2Q FY03/07
Annualized Rev per salesperson (US\$k)	7,712	7,605	7,366
Annualized Rev per employee (US\$k)	43.6	67.4	66.8
Annualized Rev per client account (US\$m)	4.8	4.8	5.2
Non-top-10 client growth, ttm (%)	42.8%	41.8%	40.5%
Annualized EBIT per employee (US\$)	14,052	15,908	15,684

Source: Company data, December 2006

INDIA

Satyam

5 December 2006

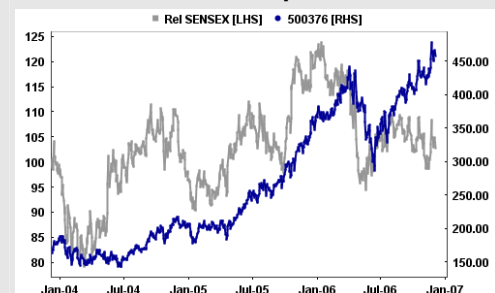
SCS IN Not rated

Stock price as of 04 Dec 06	Rs	466.85
Market cap	US\$m	6840
30-day avg turnover	\$m	49.7
Number shares on issue	m	654.63

Investment fundamentals

Year end 31 Mar		2003	2004	2005	2006
Total Revenue	m	20237	25415	34642	46343
EBIT, rep	m	3698	6627	8678	14486
EBIT rep growth	%	-25%	79%	31%	67%
PAT, rep	m	4177	5421	7512	10135
EPS, rep	Rs	4.7	8.5	11.4	18.6
PE, rep	x	98.4	54.7	40.9	25.1
ROCE	%	25%	28%	30%	31%
ROE	%	21%	24%	26%	27%
Net debt/equity	%	-0.7	-0.7	-0.7	-0.7
Price/book	x	13.8	11.4	9.3	7.0

BOM.SCS rel SENSEX performance



Source: ASX, Macquarie Research, December 2006 (all figures in INR unless noted)

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The youngest biggie

Company profile

Satyam is the youngest among the top-tier Indian IT firms but is now the fourth-largest firm in the industry. It has presence in 55 countries across six continents, and employs more than 25,000 employees in development centres around the world.

Its business offerings are organised around five industry verticals. The company currently serves 468 clients, including 157 Fortune 500 corporations.

Operational and performance analysis

- The company's SG&A as a percentage of revenue is higher than that of its three larger peers. It needs to get more orders from existing clients in order to bring this down.
- The attrition rate is high and there is need to focus more on employee retention.

Fig 1 Operational parameters

	FY06	1Q FY03/07	2Q FY03/07
Onsite Billing Rate (US\$/hr)	55.9	56.0	56.3
Offshore Billing Rate (US\$/hr)	23.0	23.1	23.1
SG&A as a % of Revenue	17.1%	15.5%	15.8%
Offshore Proportion (% of revenue)	55.7%	52.8%	52.4%
Blended Utilisation (% incl. trainees)	73.8%	71.2%	71.1%
Employee % with 0-3 yrs' experience	45%	ND	ND
Attrition Rate	19.2%	19.6%	18.7%

* For some undisclosed data, we have made assumptions which may not tally with the actual figure.

Source: Company data, Macquarie Research, December 2006

- Its annualised revenue per client is low relative to those of its peers – again pointing to the need to further deepen relationships with existing clients.

Fig 2 Performance parameters

	FY06	1Q FY03/07	2Q FY03/07
Annualized rev per salesperson (US\$k)	5,482	6,143	6,400
Annualized rev per employee (US\$k)	41.4	46.7	44.5
Annualized rev per client account (US\$m)	2.3	2.6	2.8
Non-top-10 client growth, ttm (%)	50.8%	47.5%	43.4%
Annualized EBIT per employee (US\$)	10,856	12,632	9,917

* For some undisclosed data, we have made assumptions which may not tally with the actual figure.

Source: Company data, Macquarie Research, December 2006

Important disclosures:

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Outperform	42.81%													
Neutral	44.60%													
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