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Annual Report 2001-2002

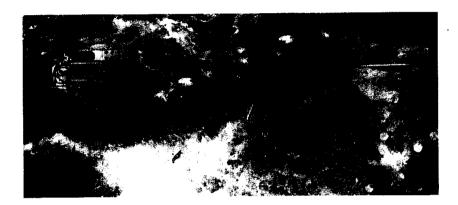
INFOSYS TECHNOLOGIES LIMITED

www.infy.com

# Managing enterprises in challenging times

Adversity has the effect of eliciting talents, which in prosperous circumstances would have lain dormant

Horace (65 - 8 BC)



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It is easy for reasonably well-managed companies to do brilliantly in great times. Revenues keep increasing with little managerial stretch; the creeping flab does not come in the way of growing profits; earning targets are exceeded every quarter; and price-earning ratios become stratospheric. The business model seems to work without a hitch.

The real qualities of a company come to the fore in tough times. The stamp of an outstanding enterprise is in how it successfully uses adversity to alter, re-engineer and simultaneously grow its businesses. Great companies anticipate shocks and downturns. Managements dig deep into their skill-sets and creativity to design solutions that can deliver in the face of difficulty. Every employee redoubles efforts to drive growth and profitability – not due to the fear of failure, but because of the yearning to win. Inviolate core values are re-affirmed; business teams rejuvenated; innovations tumble out of long unused recesses of the mind; and adrenalin pumps like never before. There is a burning desire to show that it can be done – that the greatest battles can be won in the face of hardship.

This year has been most demanding for the software industry, and we believe that the challenges and discontinuities will be with us in the future. We therefore think it will be useful to share with you how Infosys is dealing with this environment.

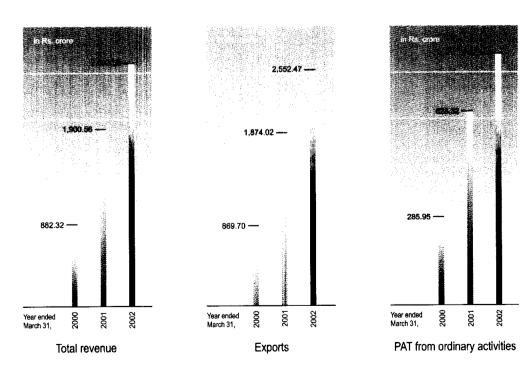
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in Rs. crore, except per share data

	in Ks. crore, except per shu		
	March 31, 2002	March 31, 2001	Growth %
For the year			
Total revenues	2,603.59	1,900.56	37
Export revenues	2,552.47	1,874.02	36
Operating profit (PBIDT)	1,037.63	764.8 <del>4</del>	36
Profit after tax (PAT) from ordinary activities	807.96	623.32	30
Profit after tax and extraordinary items	807.96	628.81	28
PBIDT as a percentage of total revenues	39.85%	40.24%	
PAT from ordinary activities as a percentage			
of total revenues	31.03%	32.80%	
Earnings per share (from ordinary activities)			
Basic	122.12	94.23	30
Diluted	121.37	93.93	29
Dividend per share	20.00	10.00	100
Dividend amount	132.36	66.15	100
Capital investment	322.74	463.35	(30)
PAT as a percentage of average net worth	46.57%	56.08%	
At the end of the year			
Total assets	2,080.31	1,389.64	50
Fixed assets – net	718.24	557.66	29
Cash and cash equivalents	1,026.96	577.74	78
Working capital	1,293.41	797.86	62
Total debt	_	_	_
Net worth	2,080.31	1,389.64	50
Equity	33.09	3 <mark>3</mark> .08	-
Market capitalization	24,654.33	26,9 <mark>26</mark> .35	(8)

Market capitalization is calculated by multiplying the share price at the National Stock Exchange on March 31 of the respective years and the shares outstanding as on that date.



## Back to the basics: Imperatives for the technology services industry



S. D. Shibulal
Executive Director, Infosys,
and Head - Customer Delivery

The last two years have witnessed an unprecedented upheaval in the technology sector. The rapid increase in high-tech manufacturing capacity, the resultant pile-up of inventories, the demise of companies that depended excessively on this segment, the Internet bubble burst, the near-halt in technology-financing activities — these are now behind us. However, a lingering impact of these events is that technology investments by large corporations are very different from the ebullience of the late 1990s. Growth rates have slackened across industries and, consequently, corporate appetite for new technology initiatives has diminished.

These are challenging times for the technology services industry. In fact, given the caution in IT spending, growth rates across this sector have dropped. Moreover, client expectations on quality, cost, timeliness and service have increased, leading to margin pressures on service providers. Consequently, the near-term outlook on corporate performance in this

sector is not optimistic. However, technology services companies that adapt their business models to these difficult times will emerge as winners in the marketplace.

Business history is replete with cases of how companies, often faced with a bleak operating environment, successfully transformed their business models to emerge stronger. Southwest Airlines transformed its business model through a relentless focus on operating efficiency. Today, it has an undisputed claim on cost leadership in the US market. The transformation of IBM under the leadership of Lou Gerstner has been widely chronicled and acclaimed. Another striking example of corporate transformation is that of GE under the guidance of Jack Welch. His "No. 1, No. 2, fix, close or sell" approach followed by a passionate adoption of globalization, market expansion through services and Six Sigma quality created unprecedented value for GE shareholders. More recently, GE's adoption of an e-business strategy has yielded benefits that easily qualify to be the envy of traditional corporations.

Today, while there are several high-quality players in the Indian technology services industry, their strengths are limited to a subset of operating parameters. Technology services companies need to develop an industry-defining business model. I have outlined ten essentials of this model below.

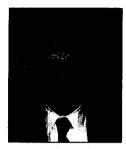
- 1. The ability to understand a client's business, to identify process pinch-points, and to introduce a credible technology solution through a consultative engagement addressing a business problem. Unlike many of their global counterparts, most Indian IT companies have a long way to go in developing these skills on a large scale. High domain expertise and a deep-seated culture of client focus in every transaction are the key attributes here.
- 2. A disciplined approach to managing topline visibility. A healthy portfolio of contractually assured open orders, relationship-driven revenue expectations, and one-off engagements is critical. Most Indian companies have begun to address this only as a reaction to the downturn.
- The ability to maintain skill-sets on a wide spectrum of technologies while ensuring depth that defies easy replication.
   This could range from the very latest technologies to niche, archaic platforms that have a scare supply of skilled personnel.
- 4. A de-risked presence across industry verticals. Given the vicissitudes of business cycles, a significant presence in counter-cyclicals can go a long way in ensuring revenue stability. Some of these markets can be difficult to sell to and have therefore not seen adequate penetration efforts by Indian companies.
- 5. SEI-CMM Level 5 quality processes, execution capability for large multi-year engagements, and sophisticated alliance management for delivering value to clients. Execution capabilities and quality frameworks need to include quantification of payoffs to the client from technology initiatives. Further, the ability to manage large engagements, often leveraging alliances in the process, is critical.
- Credible global delivery capability. Globalized execution of engagements requires adequate talent and infrastructure
  in different parts of the world. Further, robust distributed project management methodologies are critical for
  providing high-quality, rapid time-to-market and cost-effective solutions.
- 7. The ability to attract and retain high-quality people. Credible and widespread employee equity ownership, a challenging and empowering work environment, world-class physical and technical infrastructure, sensitization to a global workforce, rigorous and ongoing training programs each of these is necessary for a technology services company to be an employer-of-choice.

- 8. *Corporate integrity.* Transparency and corporate governance not only attract global capital, but also build credibility with clients, especially in these turbulent times. Stakeholders put a premium on companies that they can trust to be fair and transparent in their dealings.
- 9. Flexible, client-focused organizational structures. A matrix structure that harnesses the right resources from across the organization for client engagements is critical. In large organizations, formal processes that encourage teamwork among disparate groups through collaborative selling and execution are vital.
- 10. A globally-respected brand. In addition to operating excellence, this requires well thought out image-building efforts. For Indian companies, the ability to derive high value per marketing dollar is especially critical. Further, thought-leading publications specific to technologies and industry verticals are a powerful means to establishing a credible brand.

The world-wide drop in economic growth has, for the first time in recent years, exposed the chinks in the business models of technology service companies. The above ten elements, in my opinion, are key to the sustainability of superior corporate results in this business. Finally, in the long term, industry players that use the slowdown as an opportunity to make their business models more robust and focus on excellence in execution will emerge as the winners of tomorrow.

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## Leading the globally-competitive corporation



Claude Smadja Independent Director, Infosys, and President, Smadja & Associates: Strategic Advisory

Never before have CEOs been confronted with such extensive challenges, and been under such unrelenting pressures. Of course, it has already been several years since the combined impact of globalization and the IT revolution drastically changed the role of the CEO – and the manner in which this new role was fulfilled. But, recent developments have created additional demands that make the CEO's job look something like "mission impossible".

Successfully managing enterprises today requires CEOs to reconcile the pressures of almost instantaneous responses to very fast moving developments in the technological, financial and business environment, with the steadiness and calm required to remain focused on long-term strategic priorities and imperatives. They need to not only lead and inspire teams that are entrepreneurial, innovation-driven and aggressive in acquiring new markets, but also to fulfil the highest quality standards and to reflect a set of core social values. In fact, managing a global company today means being able to fully meet the new expectations towards the corporation and its top management.

What are these expectations? The first that comes to mind is the need for even greater transparency. Any corporation which falls short of creating the conditions that will convince shareholders and investors that the most stringent accounting standards and best practices of corporate governance are met is bound to pay a heavy price for such a failure. Today's corporation has to consider itself permanently open for inspection.

Of course, one can see here the fallout of the Enron debacle. But, the trend towards transparency predates Enron. Two developments were becoming more and more apparent since the mid-1990s. First, global financial markets were going beyond the quality and reliability of the product or service delivered by the corporation. By the end of the 20th century, quality and reliability were taken as given. What has come increasingly into play is the image and reputation of a corporation, its social standards, and its corporate culture.

Second, we have seen a perceptible shift in power from management to shareholders and other stakeholders who are being more assertive and are demanding greater say in corporate strategy and decisions, including those that affect the financial health and viability of companies. While these developments have occurred first in the United States, they have gained significant ground in Europe, and are beginning to be felt more and more in Asia and Latin America.

These two factors have an impact on the image and positioning of a CEO. No doubt, corporate fashions come and go. Yet, we seem to be moving from the era of the CEO Superstar or Superman, to one where the CEO would rather be celebrated as the gifted conductor, with the ability to set the orientations of a company and also help bring out the best from each member of the team, and each component of the entity known as the "corporation".

Another expectation regarding the corporation and its CEO is the ability to assess and manage new dimensions of risk in an ever-changing global business environment. Of course, financial and technological risks have always been part of the matrix of any CEO. But, today, these assume a new dimension. For one, globalization has definitely increased the prospects for financial volatility. For another, the processes of Schumpeterian "creative destruction" are operating at much greater speed – because of time compression, lesser transactional friction, and vastly reduced ability of governments to erect protective walls. Risks facing corporations are no longer additive. They are highly multiplicative, with complex feedback mechanisms and much greater powers of wreaking havoc.

But these are not the only risks. What is becoming increasingly important is top management's ability to detect and assess what might be called the global risk. How do we identify what are seemingly unrelated factors which, when they configure in certain ways, can create shockwaves affecting financial and business conditions in the farthest parts of the world? In more ways than one, today's CEOs of large global corporations need to pay as much attention to geopolitical considerations as they normally do to efficiency, productivity and economic rationality. There is a fairly substantial list of global corporations that, in recent years, have paid dearly for their failure to detect emerging global social and political trends.

Beyond these requirements, the global CEO must have the capability to master, to embody and to leverage for the benefit of the corporation three additional components of power.

First, knowledge power, or the ability to detect and encourage the kind of technological innovations that will not only allow the corporation to remain ahead vis-a-vis the competition, but also ensure that every element of existing technology and 'knowledge capital' at the disposal of the company is optimally leveraged to achieve maximum profitability. In more ways than one, a key function of today's CEO is to be an inspiring Chief Knowledge and Innovation Officer of the corporation. There is no underestimating the centrality of this inspirational role in the context of the knowledge-based global economy of the 21st century.

Second, there is the issue of networking power. Through his / her actions and ability to develop and nurture new strategic linkages, the CEO will have to be at the center of a web of complementary networks that can extend the capabilities of the corporation, root it even deeper in the social context from which it draws strength and legitimacy, and further the reach of the company by consolidating its image in a world where branding and intangibles have become important components in defining corporate value. This implies the ability to manage and expand a system of very complex and sometimes contradictory relationships, and to use them for the ultimate benefit of the corporation.

Third, there is communication power. At the very least, this involves the capability to deliver messages that contribute to the sustainable value of the corporate brand. More profoundly, it means being able to integrate other groups and constituencies beyond employees and shareholders in the strategic goals pursued by the corporation, in its values and the vision it develops for itself, and in the role that it can play at the national and global levels. Here again, the role of the CEO as the Chief Communication Officer cannot be underestimated. This communication — often as a daily exercise — is the way in which the corporation asserts its position as a creator of wealth and innovation, as well as a repository of social, economic and ethical values.

Looking at the complexity of tasks required of CEOs, at the ever-increasing and sometimes contradictory expectations put on them, and at the wide range of qualities demanded of them, it is not surprising that CEOs today are witnessing a sharp reduction in their professional life expectancy. The real wonder and the source of strength of the market economy is that growing complexities and increasing pressures and expectations are proving to be additional incentives in attracting greater and greater numbers of would-be entrepreneurs and CEOs in their attempt to meet the neverending challenge of value creation.

And, the fact is that the opportunities for meeting and besting this challenge have never been greater than in today's knowledge-based global economy.

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# Creating a flexible financial model



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After an extended period of unprecedented growth and soaring stock market values in the 1990s, the sharp downturn in the new millennium has come as a rude wake-up call to companies around the world. During the long boom of the 1990s, many people believed that business cycles were things of the past. Economic events of 2001 and the first quarter of 2002 have proved the optimists wrong. In spite of the tremendous advances in technology over the past decade, the business cycle is very much alive, and it affects companies everywhere.

To be sure, better use of information technology in the future may keep inventories and excess supplies in check and, thus, reduce the length and intensity of economic downturns. But, there will be booms and busts. And, the question facing companies in practically every sector – from core industries such as steel to software services in the technology sector – is how to equip themselves for such downturns, present and future. Even companies and industries that have good long-term prospects need to prepare themselves for survival in recessions.

A key element of a strategy for survival and even rejuvenation in a downturn is a flexible financial framework within which a company operates. In bad times, a company needs to cut its costs, protect its revenues, and also have a cushion to fall back on to weather the vicissitudes of the downturn. Indeed, the most flexible and nimble players may gain a competitive edge over their less agile rivals in such times.

There are several determinants of such financial flexibility:

- Low operating leverage
- · Low financial leverage
- High liquidity
- · High operating margin
- High agility in augmenting revenues
- Total transparency in financial transactions

Although these factors are not all completely within the control of a company, corporate managers enjoy considerable latitude in structuring their business to maximize financial flexibility on each of these fronts.

How do these factors contribute to the financial flexibility of a corporation, and how can managers improve their performance on each of these dimensions?

Low operating leverage. If this ratio is high, the fixed payout burden is relatively large, and the corporation will face a greater adverse impact in the event of a downturn. To illustrate the importance of this factor, consider the steel industry, which has a high fixed cost component due to large capital requirements. In the current recession, most steel makers are getting hurt not only because their revenues do not cover their costs, but also due to their limited ability to reduce these fixed costs. In contrast, POSCO of Korea reduced its operating leverage by sub-contracting part of its manufacturing, and building on substantial economies of scale in its key operations. It continues to be profitable, and has even increased its earnings in the current recession.

Low financial leverage. The higher the financial leverage, the greater is the fixed burden of servicing the debt. A corporation that is already burdened by the stresses of reduction in revenues is affected even more adversely, because of the need to meet the pre-committed debt payments of interest and principal. A combination of high operating and financial leverage makes it a "double-whammy." This is what has badly affected most large companies in the global telecommunications sector such as France Telecom and Deutsche Telekom. Global Crossings is an extreme version of this problem, and had filed for bankruptcy earlier this year. In contrast, Hutchison Whampoa, the Hong Kong conglomerate with extensive telecommunications holdings, is using its low leverage to pick up technologically-valuable assets at bargain-basement prices.

High liquidity. Companies that carefully husband their cash resources – in essence create negative financial leverage – have a much better safety net to face a downturn. The networking giant, Cisco Systems, is feeling the pinch of the recession like every other technology company, but with over US\$20 billion in cash and marketable securities, it is well equipped to last out a prolonged recession. It may even be able to buy assets and companies at attractive prices. Hence, high liquidity combined with low financial leverage becomes an important strategic tool when times are hard.

High operating margin. While the first three factors affect the cost side of the equation, this fourth feature deals with the cushion between the revenues and the costs. An example of high operating margins is the Indian IT services industry, which has demonstrated its financial flexibility in the current recession. The best companies in this industry have been relatively better equipped to weather the storm because they can face the dip in revenue growth without digging too deeply into their cash reserves.

High agility in augmenting revenues. When business conditions are adverse, there is tremendous pressure to maintain and even augment revenues. This involves all the tools of marketing, including aggressive pricing, brand loyalty augmentation, and customer relationship management. Wal-Mart Stores, the giant retailer, has managed to grow by double-digit percentages through a combination of these strategies, even in the current period.

Total transparency in financial transactions. When times are good – as they were during the dot-com boom only three years ago – very few questions are raised about the financial practices of corporations. In downturns, the capital market becomes much more demanding, and it becomes more difficult for companies to raise external finance. Firms that adhere to the best practices of corporate governance and follow transparent processes in all their financial dealings are more likely to be able to raise capital, should they need it, in a down market. This factor is very much at work even in the ability of countries to raise external finance: witness the problems faced by Argentina, and the downgrading of Japan, an erstwhile strong economy. Recent accounting scandals in the United States and elsewhere, involving companies such as Enron, highlight the importance of this factor. And, it could be argued that even companies that have a viable long-term model may be dragged into default and even bankruptcy, because their financial dealings are under a cloud. Berkshire Hathaway, on the other hand, enjoys a substantial premium over the value of its portfolio holdings, in large part, due to the "clean" reputation it enjoys under Warren Buffet.

How can a corporation improve its performance in each of these dimensions and hence its financial flexibility? While there are constraints imposed by technology and the market in certain industries, most firms can still undertake actions to improve their flexibility. For example, a company can reduce its operating leverage by outsourcing services where it has little or no competitive advantage. It can improve its operating margin by moving to lower cost locations, as the apparel industry has done successfully in the past decade. Firms in industries with intrinsically high operating leverage can use debt more judiciously, so as not to exacerbate the overall fixed commitments they make. Lastly, all firms can improve their performance by being more transparent in their financial transactions – so that investors respond favorably when they need to tap the capital market.