



H A R V A R D | B U S I N E S S | S C H O O L

JRD Tata Memorial Oration
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Hosted by Dr. Swati Piramal, President, ASSOCHAM

Given by Prof. Nitin Nohria, Dean, Harvard Business School

Remarks as Prepared

India and the Globalization of Business

It is often said in India that there are some relationships one makes in life that must have been forged in a previous birth and continue in this life as a reward for some good “karma” or previous good deeds. For me, my friendship with the Piramal family is just such a relationship. When my dearly departed friend and mentor Sumatra Ghoshal introduced me to them almost 10 years ago, little did I realize that he was bestowing on me yet another precious gift among the many I received from him.

I have gotten to know Swati and Ajay well over the last decade. It was a fortunate coincidence that when my alma mater IIT Bombay recognized me as a distinguished alumnus, Ajay was the chief guest and gave me the citation. And now that Assocham has given me the honor of delivering the JRD Tata oration, following in a line of speakers that I hardly feel qualified to be in the company of, it is an equally happy coincidence that Swati Piramal is the association’s President. I want to thank her for organizing this event and giving me this privileged opportunity.

Let me also thank the other Assocham leaders who introduced me. And I owe my deepest thanks to everyone in the audience who has come to attend this event. So many of you are the business leaders I have grown up admiring, who have been the inspiration for anyone interested in business. I also feel blessed that my family is here in the audience today—my parents, in-laws, uncles, aunts, cousins, my wife Monica and daughter Reva. They are the ones who have nurtured me and supported me to reach this stage. It is humbling indeed to stand here now and deliver this talk to all of you.

It must have been someone who got caught in the Monsoons of Mumbai who coined the phrase, “when it rains, it pours.” The phrase certainly captures how I have felt the last few months. First I learned that I had been chosen Dean of HBS, which was an incredible honor. The outpouring of good wishes I have received from all over the world, but especially from all across India, the country of my birth, has been deeply moving and heartwarming. And now this opportunity to deliver the JRD Tata oration. What an amazing privilege!

Let me begin my talk on a personal note that tells a broader story. When I graduated from IIT Bombay in 1984, like almost everyone else in my class, I applied to go to graduate school in America. I was fortunate to end up at MIT, where I graduated from the Sloan School of Management with my Ph.D. in 1988. I then started teaching at Harvard Business School, a place I fell in love with when I first joined and where I have loved working ever since. Unlike my father's generation, where the UK still attracted many Indians who sought opportunities abroad, by my time America was unambiguously the dominant destination. I think two-thirds of my graduating IIT class went to America and most stayed on to work there. We were attracted to America because it was indeed the greatest land of opportunity. It was where the action was—where the best research was being done, where the most innovation was occurring, where the best companies in the world were located, where if you had the raw talent and the hard work to back it up, anything was possible.

Indeed, the extraordinary global influence of America led Jacques Servan Schreiber, a famous French politician and writer, to declare that the 20th century was the American century. You may want to quibble with such a sweeping generalization, but I believe it was basically true—especially in the world of business and certainly in the world of business education. American companies represented a disproportionate share of the world's largest companies throughout the 20th century, and the vast majority of innovations in business—from products to services to management practices and ideas—originated in America.

Evidence of this American century could also be found in our curriculum at Harvard Business School. As many of you know, we teach primarily by the case method and over the course of two years our students discuss over 500 case studies. When I started teaching at HBS in 1988, over 80% of our cases were about American companies. Our international cases included some from Europe and a few from Japan. But you would have been hard pressed to find even a single case on a company from China, or India, or Brazil in our first year curriculum that all students must take. Today that seems outrageous and even derelict, but rarely did anyone complain. People came to Harvard Business School to study American business.

It's amazing how much the world has changed in twenty years. Today, the HBS curriculum has become a lot more global and students are exposed to many more cases of companies from emerging markets. Our students expect to learn much more about businesses and exciting innovative companies from all across the globe. And each year more of them are interested in job opportunities all over the world. This summer, for example, Anand Piramal, Ajay and Swati's son—who is currently studying at Harvard Business School—was able to attract an amazing group of HBS MBA students to do their summer internship in India. All these students, none of whom grew up in India, had summer job offers in other places. Yet they wanted to spend their summer here because they sense, as I do, that the best business opportunities are now more widely distributed throughout the world.

If the 20th century was the American Century, I believe the 21st century will be the Global Century in business, and one in which many countries and regions will become worthy rivals in the global economy. No one country or region will enjoy a clear or undisputed advantage; instead, there will be multiple players who will compete on a world stage and in the process raise the level of prosperity all across the globe. America will continue to be a powerhouse, and I think people who underestimate Japan and Europe do so at some peril. What Goldman Sachs labeled as the BRIC countries will certainly be important competitors in this Global Century, as will what they have called the Next 11—countries like Nigeria, the Gulf

countries, Indonesia, Vietnam, and Cambodia, to name a few. But notice that I didn't choose to call it the Asian Century or the Emerging Market Century. I believe the 21st century will be a Global Century because there will be many formidable global competitors.

That India will be a significant player in this Global Century is almost assured, but how competitive it will be on a sustained basis over the course of the century should not be taken for granted. It is hard to become a significant competitor in any sphere of human activity and it is tempting to celebrate when one is first recognized as a major player in an arena from which they were previously excluded. But it is important to remember that maintaining and sustaining a competitive position can be just as hard as, if not more difficult than, developing one. Once dominant European countries like Spain and Portugal, who were economic powerhouses in the 18th and 19th century, are sobering reminders that if it takes hard work to become a global competitor, it may take even harder work to stay one.

As someone who has dedicated his life to studying leadership and the dynamics of change, I want to spend the rest of this talk sharing some lessons from my research that might illuminate India's emergence as a global competitor and what challenges might lie ahead if it is to sustain its recent emergence on the global stage.

Let me start by sharing with you lessons from a project on the great business leaders of America in the 20th century. My colleague Tony Mayo and I launched this extensive study because we wanted to more deeply understand why the 20th century became the American Century. What enabled American businesses to supplant European competitors on the global stage and to sustain this dominance for such a long time? Based on our research we wrote several books, notably *In their Time*, and developed and taught a course at Harvard Business School called *Great Business Leaders* which features cases studies of business leaders whose life and work exemplified and influenced the evolution of the American economy over the 20th century.

These cases start with leaders like Andrew Carnegie, who at the turn of the 20th century built the steel mills that provided the raw material for the railroads and transportation infrastructure that connected America and made it the world's largest integrated domestic economy. We then introduce students to leaders from CW Post, who during the 1910s and 920s introduced Post Cereal and launched the consumer packaged goods industry in America; to Walt Disney, who during the 1930s built one of the great media and entertainment companies, even though he started during the depths of the Great Depression; to Henry Kaiser, who helped build the Hoover Dam and many other extraordinary infrastructure projects including a shipyard that, during the height of World War II, was completing three Liberty Ships every day. After WWII, we highlight great real estate developers like William Levitt, who created Levittown, the first mass-produced postwar American suburb, in the 1950s and built houses that redefined the American real estate landscape; and Sam Walton, who started building one of the biggest discount retailing companies in the 1970s; and Bill Gates and Steve Jobs, who ushered in the personal computer revolution in the 1980s; and Jack Welch, who transformed GE during the 1990s so that it remained an iconic company, and the only company that was on the Dow Jones Industrial Average for the entire 20th century.

I could regale you with more stories of the amazing business leaders who shaped the ebbs and flows of the American economy during the 20th century. But that's not my objective today. I share this study of American business to make a point that I believe is of great relevance to

other nations, including India, that are aiming to become sustained competitors in the coming Global Century of business.

The key lesson to be derived from America's dominance in the 20th century is that the most successful economies are those that are the most dynamic. It was amazing to me just how dynamic the American economy was throughout the century, changing dramatically almost every decade. Industries that were dominant in one decade were constantly being supplanted by new sectors that emerged in later decades. Firms that ruled the marketplace at one time were supplanted by new firms that emerged later. In any given decade, roughly a quarter of the firms that were on the list of the Fortune 100—a symbol of the largest, strongest companies in America—were no longer on that list by the end of the decade. In researching a book that I wrote called *Changing Fortunes*, I was astounded to find that less than a quarter of the Fortune 100 companies in 1975 even remained as independent companies by the end of the 20th century. This dynamism, what the great economist Joseph Schumpeter called the process of creative destruction—where an economy renews itself and constantly evolves from within—has been one of the greatest strengths of the American economy.

Contrast this with Japan, which became America's major rival in the global economy during the 1980s, but has been unable to keep pace because it has not been as adaptive or dynamic internally. As Charles Darwin, the great evolutionary thinker, noted, the fittest species is not the strongest or the biggest but the most adaptive. This dictum has important implications for the continued evolution and success of other economies, such as the Indian economy, which I will elaborate upon a bit later in this talk.

A second lesson to be derived from the American experience with relevance to other nations is that although government policies and other contextual factors play a major role in the evolution and dynamism of any economy, the most significant engine of this dynamism is business leadership. Leaders play a vital and central function in the evolution of an economy. Nurturing and cultivating a national culture that enables the emergence and development of a thriving ecology of leadership is, therefore, essential.

Here, socioeconomic mobility and educational institutions play a key role. What enabled America to remain great throughout the 20th century was that the economy was never captured or dominated for a long time by any particular group. At the turn of the 20th century white Anglo Saxon protestants from the northeast states dominated the American business landscape. But what made the American economy so dynamic and vibrant is that in almost every decade there was a new group, that was previously an outsider, that was able to enter the inner circle and become leaders in American business—for example, Catholics and Jews early in the century. This dynamic mobility of the population, on every axis imaginable (religion, gender, ethnicity, nationality, geography), is one of America's greatest strengths.

Similarly, after World War II, the GI Bill—which gave every returning soldier the means to afford a college education—created a system of higher education in America that became an extraordinary national asset, because it enabled new groups of people to gain access to a high quality education and continue this engine that drives social mobility and produces new generations of leaders. Contrast this with a country like France, in which the elite educational institutions, until very recently, largely reproduced the same socio-economic class, and you can understand why France is a less dynamic economy. Even in America, this is turning out to be an increasing worry as college education is becoming less open to all.

A third important lesson from the American experience is that companies can and must compete in different ways. There are many ways to create value for customers and in a dynamic economy, one must always look for different dimensions on which value can be created. The early history of the US automobile industry provides an interesting example. The first dominant global competitor in the industry was Henry Ford, who focused relentlessly on increasing the efficiency with which a car could be produced, and brought to the world the Model T. You could have it in any color—as long as that color was black. Nonetheless, he captured the dominant market share because it was by far the most reliable car at the lowest price.

Alfred Sloan of General Motors recognized that cost and reliability were only one way of creating value. One could also create value by recognizing differences across customers and creating products that were responsive to their specific needs. He segmented the American market and built car divisions focused on different market segments, and in a decade supplanted Ford and captured the largest share of the market. Walter Chrysler realized he could not compete against Ford or General Motors on either efficiency or customer responsiveness. So he focused his company on innovation, and gained a decent share of the market by constantly being the first to introduce innovations in engine technology and some of the other major car subsystems.

My colleagues Sumantra Ghoshal and Chris Bartlett, with whom I had the privilege of working first as a research assistant and then as a collaborator, extended this insight to the arena of global competition. They highlighted that you can compete globally on three dimensions: efficiency, local responsiveness, or innovation. But to be a sustained competitor, you would ultimately have to develop the capacity to compete on all these dimensions.

Let me now apply these lessons to the case of India.

The first year my colleague Tony Mayo and I taught the Great Business Leaders course at Harvard Business School, we focused entirely on American leaders who had shaped the American economy in the 20th century. The next year, partly driven by demand from our students, and partly by our own intellectual curiosity, we introduced a few case studies of global business leaders who had played a commanding role in the evolution of their economies. For China, we chose Li Ka Shing, the founder of Hutchison Whampoa, who, starting from a factory that made plastic watchstraps, built an empire that now reaches from real estate to telecommunications. For India, we chose JRD Tata, who did so much to lay the foundations of business enterprise during the 20th century that enables India to dream of becoming an economic superpower in the 21st century. At the end of the course, we asked students to rate all the cases and select the three business leaders who most inspired them. JRD Tata was one of these three most admired leaders. This is why delivering this oration named in JRD's honor is so meaningful to me today.

The Tata family's role in building the foundations of the Indian economy during the 20th century likely are well known to many in this audience. But a few things are worth recounting again.

It is an irony of history that JRD Tata and the other Indian business leaders who, in 1944, formulated the Bombay Plan to chart the course of India's post-independence economic development created a role for the state that would eventually do so much to stifle the country's economic progress. Yet JRD's career is notable for how he found ways to take advantage of historical circumstances and find the opportunities they created. In the 1950s, when the Bombay

Plan's vision of self-reliant economic development led to a great emphasis in India on buying swadeshi, Tata's NELCO subsidiary led a transformation in which India went from importing nearly all the approximately 2 million radios sold in the country annually to, a decade later, manufacturing nearly all of them itself. During the same decade, the Tata Engineering and Locomotive Company, or TELCO, created its own foundry and forging shop to construct truck parts that had previously been imported, dramatically increasing production and sales not only of trucks but also of tractors, excavators, shovels, cranes, and back hoes, thus spurring the growth of entire sectors of the Indian domestic economy.

In the 1960s, with India's role in international politics and the world economy increasing, JRD Tata looked abroad for opportunities and formed Tata International AG and Tata Exports to cultivate international markets for Tata products and services. JRD also recognized the power of computers and information technology and opened Tata Consultancy Services, or TCS, in 1968. Meanwhile, in another example of JRD Tata's efforts to foster innovation even in a difficult business climate, Tata's TELCO opened an Engineering and Development Research Unit that, five years after its establishment in 1966, evolved into Tata Motors. JRD Tata intuitively understood the importance of the dynamism I highlighted that was so essential to the competitiveness of the US economy.

He also appeared to understand my second lesson about the importance of constantly investing in and cultivating a new generation of leaders. JRD Tata recognized the need to develop management talent that could make Indian industry as competitive as possible. To this end, he supported the creation of the Tata Management Institute, which opened its doors in 1966. (As an aside, and as an interesting illustration of how often stories and histories overlap, it's worth noting that TMI was the second school of its kind in India. My own institution, Harvard Business School, helped cofound the first—the Indian Institute of Management in Ahmedabad—in 1961.)

JRD Tata and other leaders of his generation played a large role in creating the preconditions for the take-off India is now experiencing, an acceleration that began with the economic reforms at the start of the 1990s. As much excitement as there is about the leaders who are driving India's emergence as a global competitor today, no one should forget the debt that is owed to the earlier generation of Indian leaders, of whom JRD Tata was such a special example.

The third framework that I mentioned—that global competition is fought on the dimensions of efficiency, local responsiveness, and innovation—provides, in my view, a useful way of thinking about the evolution of Indian competitiveness since the economic reforms took hold at the start of the 1990s.

I believe that during the decade of the 1990s, the primary competitive dimension that most Indian companies focused on was greater efficiency. Some economists suggest that significant improvements in efficiency and productivity had already begun in the 1980s, but 1991, when economic liberalization got underway, was the watershed. This new focus initially was triggered, as you all know, by the restrictions imposed by the IMF as a condition for renegotiating India's debt covenants. This led to an opening up of the Indian economy and widespread fear that the domestic economy would be wiped out by more cost competitive imports. Indian companies realized that they had no choice but to become more efficient if they didn't want to be overrun by multinational competitors. Under the banner "becoming world

class,” which I saw my own father introduce as the CEO of Crompton Greaves, many Indian companies set a goal to produce products at the same price and of the same quality as those of multinational companies, as rapidly as possible. Thus we saw an explosion of companies becoming ISO 9000 certified and introducing management practices, including automation, aimed at increasing quality, productivity, and efficiency.

A good example of this phase of development in Indian industry is Vidhu Shekhar Jha’s comprehensive case study of Tata Steel, which had been JRD Tata’s flagship company and which went from lackluster performance in the early 1990s to becoming one of the most efficient steel producers in the world by the beginning of the next decade. The liberalization of the Indian economy in the 1990s brought dramatic changes to the steel industry, where there had been little domestic competition and companies were largely insulated from conditions outside of India. Tata Steel had made marginal improvements over the years to stay ahead of its Indian competitors. With the opening of the Indian economy, however, the company had to rethink every aspect of its business: products, technology, sourcing, market segmentation, plant location, and so forth, along with basic strategies, business priorities, and management techniques.

Tata Steel had actually begun its transformation by adopting the Total Quality Management (TQM) approach in 1989. The company next focused on obtaining ISO 9001 and ISO 9002 certification for its various manufacturing units and later for its service operations. It made process improvements across the company through quality improvement, value engineering, statistical process control, and operations research projects and adopted quality circles and awards that were modeled after the famous Malcolm Baldrige awards. Benchmarking and business process reengineering were also utilized in connection with the company’s TQM program.

The culmination of these efforts came in 1998, when the entire Tata Group embraced the Tata Business Excellence Model (TBEM) to deal with the challenges of economic liberalization and global competition. TBEM looked at issues of leadership, customer and market focus, strategic planning, information and analysis, human resources management, process management, and business results. The model provided Tata Steel with a comprehensive basis for corporate transformation. In one key example of its results, Tata Steel, in its vision statement for 1998, set itself the aim of becoming the lowest-cost steel producer in the world. It achieved that goal three short years later.

One could list hundreds of other examples of long established Indian companies who launched major, successful efforts to become more efficient during the 1990s. There were also those who, at least for a time, resisted making these changes; whose response to the opening of the Indian market to global competition was to attack the multinational corporations that were setting up both joint ventures and wholly-owned subsidiaries in India, and to try to use political influence to curb the activities of the multinationals.

Some companies that adopted these tactics didn’t survive. But there were others who eventually embraced this new efficiency imperative and thrived. Bajaj Auto, for example, enjoyed dominant market share in the two-wheeler segment before the economic reforms began. Its Chetak scooter was so popular that it had to be booked years in advance. But the entry of lower cost motorcycles introduced by multinationals and new joint ventures like Hero Honda almost drove Bajaj Auto to the brink of bankruptcy by the end of the 1990s. However, to its

credit, the leadership of Bajaj Auto responded vigorously and the company eventually was able to regain a competitive position in the market.

Meanwhile, as the established giants of Indian business, like Tata Steel, were gearing up to compete with the multinational corporations that now had access to the Indian market, upstart companies like Infosys were taking on the established domestic giants—including, in this case, another member of the Tata Group, TCS.

The emergence of a new class of entrepreneurs—exemplified by companies like Infosys, that took advantage of the liberalization of the Indian economy to challenge established Indian companies from within—at the same time that these established companies were facing the competitive threat from multinational companies entering from abroad, created a dynamic competitive ecology that was enormously healthy for the Indian economy, just as it was in the case of America. Finally, in India, being an established player no longer guaranteed future success. Companies like Hindustan Motors and Premier Automotive that had once dominated the Indian industry were quickly decimated. The leader-boards of Indian industries became just as volatile as leader-boards in American industry. Indeed, in addition to a massive increase in efficiency and productivity that this heightened competitiveness spurred throughout the economy, it also broke open a closed leadership elite that had long been dominated by a small number of prominent Indian families. This led to a much healthier and more open climate for business leadership in the country.

Survival and success in this new environment required a different kind of leadership that was a bit less paternalistic than Indian companies were used to. It was a tougher, more disciplined, process-oriented leadership because people had to be shaken out of their historical complacency. I remember that initially in India this performance-focused leadership style used to be considered a very American way of doing business, “not something we do in India, because here we are more humane.” People suddenly realized, however, that to be humane—at least in the way they used to think about it—was to be uncompetitive. And the best Indian business leaders recognized that being tough-minded about performance was not the same as ruling by fear. They brought their people along with them by means of persuasion and example, as all truly great leaders do. At Tata Steel, managing director JJ “Doc” Irani was a charismatic leader who described the company’s transformation effort as a “modernization of the mind.” He tirelessly explained the need for change to his employees while also saying that “tough decisions have to be taken in a humane kind of way.”

Those who survived the competitive rigors of the 1990s experienced a growing sense of confidence in what their companies could accomplish. As someone who studies sociology and human emotion, I have observed that when fear and defensiveness are replaced by self-confidence, an amazing transformation happens. As an observer of the Indian scene, I began to see this transformation myself between the late 1980s and the 1990s. For the first few years after I graduated from MIT in 1988, I would come back to India and share ideas with people who would say, in effect, “That’s very good, that applies in the US, but it won’t really work in India.” No one really took what I had to say very seriously, even though they nodded their heads vigorously. But by the late 1990s there was suddenly a massive appetite in India for learning from anyone who could offer useful management advice. So you saw things like the quality movement take off, as we noted in the example of Tata Steel. Consulting companies like McKinsey & Co who could previously only do assignments that were funded by international development agencies were suddenly in demand. The willingness to learn from others is a sign

of confidence, the opposite of the kind of defensiveness that is afraid to be challenged by new ideas.

Another amazing thing I have observed about those who discover self-confidence is that they also discover luck. For several Indian IT companies, that luck came in the form of the millennial anxiety surrounding the Y2K bug. When people despaired of finding timely solutions to the Y2K bug, the newly confident Indian IT industry stepped up to the challenge, and built a client base that would pay enormous dividends in the years ahead. That same psychology of self-confidence encouraged several other Indian companies to try their luck in export markets and start winning orders that once seemed impossible. This led to companies like Bharat Forge and Sundaram Fasteners suddenly becoming major global suppliers in the world's most competitive automotive markets.

If the drive for greater efficiency was the major focus in the first stage of India's march to global competitiveness, local responsiveness was the added focus in the second stage, which started at the beginning of this new century, and has lasted up until now. This second decade has been a period in which the country's domestic market has developed a powerful new identity, creating opportunities for Indian companies to grow by developing and marketing products that are responsive to the unique needs of local consumers. During this phase, Indian companies have continued to become more productive and efficient, but have also developed great ingenuity in developing products uniquely suited to the domestic market.

Once again a Tata company provides a good illustration: in this instance, a case on Tata Motors written by my colleague Krishna Palepu. It may be an understatement to say that the decade didn't start well for Tata Motors. In 2001, it posted a loss of Rs. 5 billion, the largest loss in the history of any Tata company and the largest ever recorded for any private-sector company in India. The loss was in part due to a cyclical downturn in the commercial vehicle segment, which was the company's core business, and a global economic recession. Yet, Tata Motors had also developed a reputation for being arrogant and slow to respond to customer needs, and for offering unreliable products. Ravi Kant, the head of Tata Motors' Commercial Vehicle Division, and other executives realized that the company would need to take drastic measures and outlined three areas of focus: cost reduction and quality improvement, not surprisingly, but also new product introduction.

Tata Motors' leadership knew that truck penetration in India was expected to increase in coming years owing to ongoing improvements in the nation's road system. The construction of the Golden Quadrilateral highway system and secondary road networks within various states was certain to increase the demand for larger trucks that could carry loads of 45 tons or more from hub to hub. At the same time, the construction of a new, all-weather tertiary road network connecting rural towns, combined with increasing traffic congestion in major Indian cities, was going to trigger demand for a vehicle that could service the "last mile" in the transportation supply chain by delivering small but full truckloads from various hubs to urban and rural consumption centers. Tata Motors realized that its core business could be threatened by the absence of both larger and smaller trucks in its product portfolio. Senior management reasoned that a smaller commercial vehicle would be a particularly attractive addition to the product line in light of the financial loss of 2001, since demand for smaller vehicles was historically less cyclical than that for medium or large vehicles.

During a strategic review session of Tata Motors executives, the idea of a “cheap, nasty and rugged vehicle for India” emerged. The company would design a product that would meet a need that was unique to India: a small truck that, with its compact size and shorter turning radius, could maneuver through India’s narrow urban streets and cost-effectively transport small loads to villages and towns in rural areas that were typically served by overloaded auto rickshaws and carts. In a signal that the company was serious about encouraging new ideas, the project team that developed the new truck was led by a 30-year-old engineer, Girish Wagh. When it was launched in May 2005, the Tata Ace, at Rs. 225,000, cost 50% less than any other four-wheeled commercial vehicle in India and was significantly cheaper than pickup trucks with smaller payload capacities found in international markets. By offering a niche vehicle that met the unique needs of the Indian consumer at a price comparable to that of a three-wheeler, Tata Motors created an entirely new product category, and the vehicle was an instant hit. In 2005–06, Tata sold 30,000 Aces, exceeding all initial estimates; by 2009-10, annual sales were up to 110,000.

A conceptual way of thinking about the Tata Ace and many other such products that have been embraced by local consumers in the last decade is that they exploit an intimate understanding of what my HBS colleagues Tarun Khanna and Krishna Palepu call “institutional voids.” What Tarun and Krishna mean when they talk about institutional voids is that, when you compare an emerging market with a developed one, the emerging market has a series of institutions that are missing, that you typically take for granted in a developed economy. In developed markets, for example, you can take credit for granted, or transportation infrastructure, or a well functioning legal system. In an emerging market, many of those institutions are missing, and if you can create businesses that exploit these voids in ingenious ways you can generate lots of opportunities. This is exactly what the Tata Ace did by building a vehicle that could be responsive to the last mile delivery problems that uniquely exist because of the institutional voids in Indian infrastructure.

Bharti Telecom is another great example of a company that deeply understood and responded to the institutional voids in the telecommunications sector in India. In 1992, the Indian government announced that it was going to liberalize the nation’s telecommunications sector. Immediately, nearly 300 foreign and domestic companies expressed interest in providing fixed-line services in a country that, at the time, had only one phone line for every 100 persons and you could wait for years to get one. I remember growing up that one of the great status symbols in our house, which showed that my father was a CEO of a major Indian company. was that we had 2 phone lines. Now even our house cleaner has three cell phones.

When the telecommunications sector was opened, everyone initially clamored for the fixed-line service, as demand for cellular services were thought to be limited to a very small segment of the very rich. However, regulatory hurdles soon slowed both foreign and domestic investment in fixed-line services, so some companies like Bharti opted, instead, to focus on becoming cellular providers.

Bharti Tele-Venture’s cellular unit, Bharti Cellular, became the first company to offer cellular service in India in 1995, the first Indian mobile operator to surpass 100,000 customers in 1997, and, in 1998, the first of India’s cellular operators to turn a profit. While its first competitor, Sterling Cellular, concentrated on the corporate market, and especially on foreign firms and embassies, Bharti led the way in targeting a broader segment of users. An industry publication said at the time that “Bharti has almost single-handedly redefined the Indian cellular

market and has thoroughly established the fact that the market lies not with high-profile corporate executives but with small businessmen.”

It is worth remembering that by the beginning of the 2000s, even though Bharti had begun to grow rapidly, it had only two mobile operations zones. It was only in 2005 that Bharti Cellular became the first mobile provider in India with a presence in all 23 telecom circles in the country. Since then, of course, the Indian domestic cellular market has been one of the fastest growing and most competitive cellular markets in the world. I often tell my friends that I far more often experience a dropped call traveling from my office to my home in America than I have experienced traveling in some of the remote villages in India.

It is especially worth noting that, while they were leapfrogging land-line operations to create an infrastructure and a market for cell phones in India, Bharti and other entrants in this market discovered something that no one else had expected: that the biggest market for cellular phones was not the corporate sector, or even the urban middle class, but the nation’s rural consumers. Indeed, the rise of companies like Bharti and the emergence of players like SKS in microfinance have led to the emergence of a whole new class of consumers—what the late CK Prahalad, who we all dearly miss, so famously called the Fortune at the Bottom of the Pyramid.

Opportunities created by responding to local institutional voids can also explain the rise of companies like DLF and L&T, which focused on the rising demand for decent housing and infrastructure in India, and banks like ICICI and HDFC, which have focused on the rising demand for financial services in the domestic market, or retailers like Big Bazaar and Metro, that have met the demand for a consolidated shopping experience.

The main unifying thing to note about this second period of India’s emergence as a global competitor, however, is that it was a decade of consumer responsiveness. The greatest success came to those who were able to get close to the consumer and develop good and services that were responsive to local needs and local consumer realities, that were often different from products and services sold in the global marketplace. This is not to say that the process of improving efficiency and productivity that had begun in the 1990s stopped or even slowed down; rather, the new focus on customer and market responsiveness was layered on top of a continuing attention to efficiency.

Indeed, strategies that focused on customer responsiveness required, in many cases, a radical re-imagining of business models, because the Indian market was huge if existing price barriers could be broken. At Bharti Cellular, for example, Sunil Mittal built a virtual company and outsourced nearly every major part of its production system so as to focus relentlessly on the consumer and on growing the market by reducing cellular service prices. Tata Motors also had to reengineer its business model dramatically, relying much more heavily on its vendors and outsourcing a much greater proportion of the production of cars and trucks for the purpose, again, of focusing its own energies on more customer-facing activities and delivering the customer a great product at a previously unimaginable price point.

Considering the courage it took to undertake such changes, it cannot be emphasized enough that—as with the transformation of Indian companies that took place in the 1990s, when new management approaches and skills were required to make often hidebound companies more efficient—the companies that have exhibited outstanding customer responsiveness in domestic markets over the last decade have done so because new leaders emerged and rose to the challenges and opportunities presented by new economic conditions. In addition to the

efficiency oriented leadership skills of their predecessors, this new generation of leaders brought an added marketing and business model savvy—like the Tata Motors executives who hatched the idea of a “cheap, nasty and rugged vehicle for India.” And they were bigger risk-takers—like Sunil Mittal, who back in the 1980s got a 10-month jump on his competitors in the newly liberalized telecommunications equipment sector by signing a deal with Siemens for delivery of a complete list of telephone components, even ones that the government had not yet licensed.

Again, much as I found in my research on the emergence of America in the 20th century, this second decade created a new source of dynamism in the economy. Remember, in the first decade, the dynamism came from a new class of competitors who flanked established Indian companies. In this second decade, a new dynamic was created by the emergence of different customer segments, from the rich to the middle class to the rural poor, each of which became important targets of opportunity. The ecology of Indian business became richer and more interesting because it now had not just lots of new competitors, but also lots of new consumers, and another new generation of very different leaders.

Just like the decade led to an important psychological shift from fear to self-confidence, this second decade led to an equally profound shift from viewing the Indian market as a thicket of constraints to seeing it as a plethora of opportunity. And just like when you have self confidence you discover luck, when you see the world as full of opportunity you discover that you suddenly have a new vision—you can see things you never saw before. That leads you to see yet more opportunities.

So now the obvious question becomes, what is the challenge for the next decade? What will be the sequel to the two remarkable decades of transformation we have just seen, as Indian companies first learned to compete by becoming more efficient and productive, and then to exploit the country’s vast domestic market by becoming responsive to local conditions and the latent needs of Indian consumers? What will Indian business have to do to continue to become yet more competitive in the global economy?

Returning one more time to the framework I outlined before, the third dimension of global competitiveness that Indian firms will now have to turn their focus upon is innovation. I think that the coming decade will require India to be much more proactive in R&D and innovation. For India to gain competitive advantage and be a major player in the global economy, it will have to add this new dimension of competitive capacity.

In fact this imperative exists not just for India but for countries everywhere. As I have noted, one of the key lessons of the 20th century, when American business dominated the global scene, is that the most successful economies are those that are the most dynamic. Another way to put this is to say that the most successful countries economically over the long run are the ones that are best at innovation. And, indeed, cutting-edge innovation is now happening and will accelerate all over the world.

An interesting example for Indian companies to draw inspiration from is Samsung, in Korea. Today, Samsung has become such a major force in consumer electronics that it has displaced Sony, once considered the iconic innovative company in the world. It is even challenging Nokia, another company that is often closely associated with the word innovation, for dominance in the mobile phone market. It is just as likely that the next major global innovation in consumer electronics (which now includes cell phones) will come from Samsung as from Nokia, Sony, or even Apple. Samsung is a company whose products could once be

found only on the bottom shelves at Wal-Mart and other value-oriented retailers; now, it has futuristic concept stores in New York and other cities that rival the flagship Apple, Nokia, and Sony stores. So this is an example of a company that has not previously been an innovator, but has gone through the process of first becoming an efficient producer, then going out and competing on the global stage, and now challenging some of the major innovators in the world.

Another fascinating example of such a company is BYD, a Chinese automaker that—having already beaten GM, Toyota, and Nissan to market with the first plug-in hybrid—is now at the front of the race to develop a full-size electric car for the mass market. BYD develops its own cutting-edge battery technology and says that the lithium-ion ferrous phosphate battery used in its E6 electric car not only costs half what standard lithium-ion batteries do but also lasts longer and uses non-toxic fluid. I was recently talking to the chief marketing officer of Volkswagen—who is making a big push for his company to win this race—and he told me that the company that he most fears might beat him to the post is BYD. And this is a company from a country that is still considered an emerging economy.

Turning back to India, it may be tempting to conclude that Indian companies will easily develop a globally competitive innovative capacity. It is certainly true that Indian companies have always had very strong engineering base. Indeed, it was this underexploited engineering culture that drove the efficiency movement of the 1990s in India. But the people who drove this first transformation were largely industrial engineers who focused on process and systems. It may take a different kind of engineering culture to drive innovation. Indian companies don't yet have a great track record for world-beating innovation. If we were to ask ourselves which Indian companies today have the capacity to strike fear into the hearts of the innovators and would-be innovators across the world, the answer, if we were being honest, would be “not very many, yet.” Bharti, for all its success in the Indian market, has not thus far been able to create cellular telephony that it is so innovative that it allows them to dominate global markets, while the Tata Ace—which is a fabulous product for India—has yet to become a global product. Nor, yet, has the Tata Nano. Contrast that with the iPad, which has already become a coveted product all over the world.

In fact there is no major global product yet identified as being developed in India. Some may argue that India may not have to pursue this path of developing a globally competitive innovative capability, given the size of its domestic market that still has so much headroom for growth. But I believe that would be a mistake. Indian companies must aim to compete and win the battle for global innovations to build on the remarkable successes of the last two decades.

Is there an opportunity for Indian companies to do something remarkable in the way of innovating and developing truly global products? Absolutely. Let's take an industry that I know quite well: pharmaceuticals. Pfizer, which was at one point considered the most promising of the pharmaceutical companies in the US, has basically produced nothing of major significance from its R&D pipeline for the last five years. Meanwhile, the average cost of developing a new drug for Pfizer and other major pharmaceutical companies keeps increasing, even as the market is moving toward targeted niche products rather than blockbuster drugs. Lots of pharmaceutical companies that could once never think of competing with the Pfizers of the world can now begin to think about doing so. This is potentially an opportunity for an Indian company. If there were some way of reengineering the R&D process so that you could come up with an innovative new drug for \$500 million, that would be a huge opportunity for an Indian pharmaceutical company in the global marketplace.

Other industries that come to mind as offering possibilities for India to develop new products not just for domestic consumers but also for global markets are entertainment and fashion, given India's extraordinary history of local innovation in these arenas. Our IT industry has done a fabulous job of providing globally competitive services, but are they aiming to give the world the next Google, Facebook, or Twitter?

Humanity, as a whole, is in desperate need for innovations that will address challenges of environmental sustainability, healthcare and quality of life, and navigating the constantly expanding digital landscape. Companies from countries that supply these innovations will be the winners in this new Global Century.

So how do you build the capacity to exploit the kind of learning that has taken place in Indian companies that have innovated in the domestic market, to take things to the next stage so that such innovation can be taken into the global arena? What new processes will have to be invented to catalyze innovation? How do you build the capacity for imagination? As was the case in the first two phases of efficiency and responsiveness, this third phase of development for Indian companies must start with leadership.

Innovation for the global marketplace will require a new, more cosmopolitan type of leadership that can build companies with a more global footprint. These new leaders will need to have the vision and passion of someone like Steve Jobs, who has come to almost personally symbolize innovation. On the one hand, being a great innovator requires the ability to believe you can produce something that no one else has made before; on the other hand, you need to have the humility to recognize that it is hard to develop a monopoly on creative talent—and that it will rarely reside only in your own company or your own country. Thus learning how to work with others in an open ecology of innovation is a key organizational requirement for innovation—notwithstanding our image of the great inventors and innovators in history as solitary geniuses thinking thoughts of their own that no one else has ever had before.

Innovation in any context, indeed, is all about mastering paradoxes. It involves listening intensely to consumers and yet imagining things that they might not yet know they need or will fall in love with. It involves making big investments in long-term R&D programs, yet also recognizing the maverick in your company who may actually come up with the next big thing. Innovation often involves the creative combination of things that at first seem to have no connection with each other or that even appear to be mutually opposed. One of the great Italian fashion design houses, for example, insists that every new design reflect some piece of art from their historical archives at the same time as it reflects a very contemporary piece of art.

As I noted earlier, although governmental policies and other contextual factors play a major role in the evolution and dynamism of any really successful economy, the most significant engine of this dynamism is business leadership. And now that I have told you what path I believe Indian companies need to follow to build on their remarkable record of success over the last two decades, and, just as importantly, what kind of leadership it will take for them to pursue this path, naturally it falls upon me, as a business educator by profession, to tell you what I think business education can and should be doing to help produce such leadership.

I have spoken of the necessity for countries that seek economic success to nurture and cultivate a national culture that enables the emergence and development of a thriving ecology of leadership. I use words such as cultivate and ecology because I do not believe that leaders can be manufactured on demand and to order. And I speak of “national culture” in this context

because it seems to me more or less evident that, although there are human beings born everywhere who possess some or all of the natural abilities that leadership requires, some countries in the modern world have been more successful than others in producing truly dynamic and innovative business leaders. In short, while I do not believe that there is any simple formula for producing leaders, I do believe we can create the conditions in which they will emerge and help them hone the abilities they will need to succeed. And while it is for business and political leaders in countries everywhere to figure out how they can best create the conditions in their own countries under which strong business leaders can emerge, it is for those of us who are business educators to assume responsibility for identifying and honing the abilities that will enable the future leaders whom we educate to achieve their full potential.

I will talk about these issues from the perspective of the institution that I know best and that I am now privileged to lead, Harvard Business School. Yet just as the issues I have identified in talking about the past and future of Indian business are, I believe, applicable to countries everywhere, what I will have to say about business education is also meant to apply to business schools generally, even though there are some features of our approach to business education at HBS that make us somewhat unique in our field.

If there is anything we feel proudest of at HBS, it is our history of taking the best ideas in the world and using them to develop leaders who have gone out and made a difference all over the world, including many from India. And one of the ways in which we try to develop leaders is by teaching our students about what great leaders do. At HBS, our basic pedagogical premise is that theory flows from practice. Our emphasis remains, as it has always been, on general management and the actual experience of practitioners. It is the ingenuity of real managers facing real decisions that is captured, studied, and then disseminated through the ideas and cases that still form the core of our curriculum.

If we are stay true to this basic pedagogical philosophy our school will inevitably have to become more global if we are to remain relevant and at the cutting edge of what I am calling a Global Century. But being global doesn't necessarily mean having a large global physical footprint. Our goal is to have a large global intellectual footprint. Through the network of research centers we have created across the world—in Europe, India, China, Japan, Latin America, and even on the West coast of the United States (which can sometimes feel like a different world to those on the east coast), we remain committed to chasing innovation and management knowledge as it emerges across the world. We hope to bring these ideas to Harvard Business School in Boston so that we can credibly promise our students that they are getting prepared to enter and contribute to business in a Global Century. And we equally hope to disseminate what we are learning throughout the world through our intellectual output, cases, and executive education activities so that we help business leaders everywhere develop themselves to compete in this Global Century.

We are also committed to innovation in all that we do, as we enter a world in which innovation will be a major source of competitive advantage. Indeed, I have challenged our whole school to rise to the challenge of ushering in a new century of innovation at Harvard Business School that will allow us to remain a global beacon of management education in this new century just as we are so proud of having been in our first century.

I hope you have found my remarks of some value. I wish you all the best in providing the leadership that will enable India to continue the remarkable journey it has been on over the last two decades and attain yet greater heights in the coming Global Century of business.