Chapter 1

RISING UP TO THE GLOBAL CHALLENGE

“The world is your oyster. Do you have the right fork?”

Thomas A. Stewart
Fortune, 15 March 1999

What do we mean when we say that we live in an increasingly global world? If you are a Hollywood producer, it means that you care not only about whether your movie will be a box office success in the home market, but also and perhaps even more so about whether it will be a successful export and earn several times as much outside the North American shores. If you are the chairman of Sycamore Networks, a red-hot startup in the Internet infrastructure arena, it means that you see yourself as a born global player that will pursue customers everywhere right from day one. If you are the CEO of Black & Decker, it means that, in reviewing your strategy for the North American power tools market, you look at the strategies of competitors such as Makita and Bosch not only in North America but also worldwide. If you are the chairman of British Steel, it means that you wake up every morning acutely aware of the fact that over 60% of your company’s shares are owned by Americans rather than by perhaps more patient local investors. If you are the CEO of Ford Motor Company, it means that, as you enter and expand into emerging markets such as China or India, you do not need to design new cars entirely from scratch and that you can enter these markets faster and more economically by leveraging on existing global platforms. If you are the Finance Minister of India, it means that you regard the integration of the country’s economy with the rest of the world as fundamental to the realization of your homeland’s potential as an economic superpower. And, last but not least, if you are a recent MBA and a junior manager at Procter & Gamble, you vow never to forget that you do not
have a prayer of ever making it into the top ranks of the company unless you combine superb on-the-job performance with extensive international experience.²

The twin forces of ideological change and technology revolution are making globalization one of the most important issues facing companies today. The makeover from state-dominated isolated economies to market-driven globally integrated economies is proceeding relentlessly in all corners of the world, be it Brazil, China, France, India, or South Africa. The Asian financial crisis of the late 1990s not only illustrates the already high connectedness of the world’s capital markets, but its full resolution will inevitably require a much greater liberalization of the trade and investment regimes in the affected countries. Accelerating developments in the information and transportation technologies are making real-time coordination of far-flung activities not only more feasible but also more reliable and efficient. Often, these emerging industries (e.g., software, computers, and telecommunications) themselves tend to be born global, thereby further transforming the worldwide economic landscape.

In the emerging era, every industry must be considered a global industry and every business a knowledge business. In this context, distinctions such as “international,” “multidomestic,” and “transnational” are becoming less and less meaningful. Today, globalization is no longer an option but a strategic imperative for all but the smallest corporations. This is as true of firms in industries such as cement, construction, and health care, which have traditionally been regarded as multidomestic, as it is of firms in industries such as semiconductors, televisions, and automobiles which globalized many decades ago. The only relevant question today is: Is your company a leader or a laggard in engineering and exploiting the ongoing globalization of your industry? The central premise of this book is that, no matter
what the industry, only those companies that successfully lead the global revolution within their industry arenas will emerge as the winners in the battles for global dominance.

Over the last ten years, we have studied over one hundred global corporations through a variety of research methods: large scale surveys, case studies, as well as in-depth discussions with several hundred executives. We have also served as advisors and consultants to dozens of companies in their efforts to review, redesign, and recreate their global strategies and organizations. Building on this knowledge base, we provide herein a roadmap for smart globalization. We identify and focus on four tasks essential for any company to emerge and stay as the globally dominant player within its industry. **One,** people must ensure that their company leads the industry in identifying market opportunities worldwide and in pursuing these opportunities by establishing the necessary presence in all key markets. In some cases, these opportunities entail creating a new industry as illustrated by Yahoo! which pioneered the Internet portal market in many parts of Asia and Europe. In other cases, these opportunities might manifest in the form of transforming an existing industry as illustrated by Wal-Mart which is changing the rules of the retailing industry in every corner of the world. **Two,** people must work relentlessly to convert global presence into global competitive advantage. Presence in the strategically important markets gives you the right to play the game. However, it says nothing about whether and how you will actually win the game. Doing so requires identifying and exploiting the opportunities for value creation that global presence offers. **Three,** people must cultivate a global mindset – they must view cultural and geographic diversity as opportunities to exploit and be prepared to adopt successful practices and good ideas wherever they come from. **Four,** people must constantly strive to reinvent the rules of the global game as captured in answers to three perennial questions: who are our target customers, what value do we want to
deliver to these customers, and how will we create this value?

We begin the journey by examining some of the fundamental questions: what is globalization, what is driving globalization, and what do these trends imply for companies and for managers?³

WHAT IS GLOBALIZATION?

At one extreme, imagine a world that is a collection of economic islands connected, if at all, by highly unreliable and expensive bridges or ferries. At the other extreme, imagine the world as an integrated system where the fortunes of the various peoples inhabiting this planet are highly intertwined. The sneakers that you wear were manufactured in Indonesia. Your mutual fund company invests a part of your savings into companies in Ireland. The software that you just downloaded from the web was developed in India. And, the company that you work for routinely exchanges technologies and management ideas with its subsidiary operations in Japan. If you agree that, over the last fifty years, the world around you has undergone a transformation from something like the first scenario to something like the second one, then we would say that the worldwide economy is indeed undergoing a process of “globalization.” More succintly stated, globalization refers to growing economic interdependence among countries as reflected in increasing cross-border flows of three types of entities: goods and services, capital, and knowhow. The term “globalization” can relate to any of several levels of aggregation: the entire world, a specific country, a specific industry, a specific company, or even a specific line of business or functional activity within the company.

At a worldwide level, globalization refers to the aggregate level of economic interdependence among the various countries. Is the world truly becoming more global? Yes. As
evidence, consider the following trends. Trade in goods and services now stands at almost 25% of world GDP, up from under 10% about three decades ago. The stock of foreign direct investment has grown from less than 5% of world GDP in 1980 to almost 10% now. Trends in cross-border transactions in bonds and equities are even more dramatic. In 1970, such transactions as a ratio of GDP stood at less than 5% for U.S., Germany, as well as Japan. By 1996, the respective figures for the three countries had soared to nearly 150%, 200%, and 100% respectively. The pace of globalization continues unabated – as evidenced by the fact that the total asset size of cross-border mergers and acquisitions grew by 15% in 1996, 45% in 1997, and nearly 75% in 1998.

The fact that the worldwide economy is indeed becoming more global does not in the least imply that all countries, all industries, or all companies are becoming globally integrated at the same rate. For a variety of historical, political, sociological, and even geographic reasons, diversity is and will remain one of the defining characteristics of humanity. Thus, it is important to examine what this concept means at the level of a specific country, a specific industry, or a specific company.

At the level of a specific country, globalization refers to the extent of the interlinkages between that particular country’s economy and the rest of the world. Historical and political reasons have caused some countries, such as Cuba, to remain quite isolated. Others such as China, India, Mexico, and Brazil have made great strides towards global integration – albeit at different speeds. Some of the key outcome indicators that can be used to measure the globalization of any country’s economy are: exports and imports as a ratio of GDP, inward and outward flows of both foreign direct investment and portfolio investment, and inward and outward flows of royalty payments associated with technology transfer.
Table 1-1 compares the global integration of China and India along some of the indicators at two points in time: 1980 and 1997. As this table indicates, starting from a roughly similar degree of economic isolation in 1980, China’s economy globalized at a much faster rate during 1980-1997 than did India’s economy.

<table>
<thead>
<tr>
<th></th>
<th>China</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports of goods and services as % of GDP*</td>
<td>6%</td>
<td>20%</td>
</tr>
<tr>
<td>External debt as % of GDP*</td>
<td>2.2%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Inward flows of foreign direct investment as % of GDP*</td>
<td>1.7%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Total stock of inward foreign direct investment as % of GDP***</td>
<td>&lt; 1%</td>
<td>17.9%</td>
</tr>
</tbody>
</table>

**Data pertain to 1996.

At the level of a specific industry, globalization refers to the degree to which, within that industry, a company’s competitive position within one country is interdependent with its competitive position in another country. Alternatively stated, the more global an industry, the greater is the competitive advantage that a player within that industry can derive from leveraging technology, manufacturing prowess, brand names, and/or capital across countries. The greater the degree of such interdependence, the greater will be the extent to which the industry is dominated by the same set of global players who face each other in almost every market and coordinate their strategic actions across countries. The wireless handset industry, so far dominated globally by Nokia, Motorola, and Ericsson, and the soft drinks industry, dominated globally by Coca-Cola, Pepsi-Cola, and Cadbury-Schweppes, are two examples of highly global industries. In contrast, the construction and the hospital industries, populated by hundreds of domestic companies all over the world represent two good examples of industries still in the very
early stages of globalization.

Some of the key outcome indicators of the globalization of an industry are: extent of cross-border trade within the industry as a ratio of total worldwide production, extent of cross-border investment as a ratio of total capital invested in that industry, and proportion of industry revenue accounted for by players competing in all major regions of the world. For illustrative purposes, consider the ratio of cross-border trade to worldwide production. On this measure, relative to an index of 1.0 for all manufacturing industries, the mid-1990s figures for the computer industry were 2.2, for the auto industry 1.6, and for the pharmaceutical industry 0.7. These figures indicate that, in terms of cross-border flow of goods and services, the computer industry is more global than the auto industry which is more global than the pharmaceutical industry.

WHAT IS A GLOBAL COMPANY?

Ask ten different executives the question “What is a global company?” and, more likely than not, you are likely to get ten different answers. Some might argue that a global company is one that is pursuing customers in all major economies, in particular the Americas, Europe, and Asia. Others might argue that you are not really global unless you put down roots in every major market in the form of producing locally what you sell locally. Yet others might suggest that the real test of globalization lies instead in whether your business unit headquarters are globally dispersed, whether your top management team consists of individuals from different nationalities, and so forth.

There are two problems with each of these perspectives regarding what is a global company. First, each definition overlooks the fact that globality is a multidimensional phenomenon and, like the proverbial elephant, can never be understood fully from just one
perspective – be it market presence, production bases, composition of the top management team, or any other. Second, each definition overlooks the fact that globality is a continuous variable along a spectrum from low to high rather than a categorical binary variable with only two extreme values (global vs. non-global).

As depicted in Figure 1-1, we believe that the concept of “corporate globality” should be viewed as a four-dimensional construct based on the premise that an enterprise can be more or less global along each of four major characteristics: globalization of market presence, globalization of supply chain, globalization of capital base, and globalization of corporate mindset.

![Figure 1-1](image_url)
The first dimension, globalization of market presence, refers to the extent to which the company is targeting customers in all major markets within its industry throughout the world. Even within the same industry, globalization of market presence can range from relatively low to very high. For illustrative purposes, Table 1-2 presents comparative data on the inter-regional dispersion of sales for selected firms in the information technology industry. As these data indicate, in 1993, NTT of Japan was the least globalized company on this one dimension. In comparison, IBM, Sun Microsystems and Canon appeared to be among the most globalized companies.

<table>
<thead>
<tr>
<th></th>
<th>North America</th>
<th>Europe</th>
<th>Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM</td>
<td>41</td>
<td>33</td>
<td>16</td>
</tr>
<tr>
<td>Fujitsu</td>
<td>6</td>
<td>26</td>
<td>65</td>
</tr>
<tr>
<td>Hewlett-Packard</td>
<td>51</td>
<td>34</td>
<td>9</td>
</tr>
<tr>
<td>NEC</td>
<td>6</td>
<td>4</td>
<td>88</td>
</tr>
<tr>
<td>Compaq</td>
<td>45</td>
<td>38</td>
<td>5</td>
</tr>
<tr>
<td>Canon</td>
<td>30</td>
<td>29</td>
<td>37</td>
</tr>
<tr>
<td>Sun Microsystems</td>
<td>51</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>NTT</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Microsoft</td>
<td>56</td>
<td>30</td>
<td>9</td>
</tr>
</tbody>
</table>


The second dimension, globalization of supply chain, refers to the extent to which the company is accessing the most optimal locations for the performance of various activities in its supply chain. It is entirely possible for a company to have fairly local or regional market presence and yet a highly globalized value chain or vice-versa. For example, in 1999, as a key element of the turnaround strategy for Marks & Spencer, the British retailer, CEO Peter Salsbury announced plans to set up a global supply chain for apparel goods with manufacturing hubs in Portugal, Morocco, and Sri Lanka.  


Toyota represents another good example of a company with a global supply chain. At the end of 1995, Toyota produced about two-thirds of all its cars in Japan; the remaining one-third were produced in wholly or partially owned affiliates in 25 foreign countries spread over the Americas, Europe, and Asia. Furthermore, the company exported 38% of its domestic production to foreign markets. Aside from this flow of capital, goods, and knowhow between Japan and overseas affiliates, Toyota also engaged in significant intra-firm flows among the affiliates. For example, within its Southeast Asian regional network, it exported diesel engines from Thailand, transmissions from the Philippines, steering gears from Malaysia, and engines from Indonesia.8

The third dimension, globalization of capital base, refers to the extent to which the company is tapping into the most optimal sources of capital on a worldwide basis. The Hong Kong based Internet service provider China.com represents a good example of how it is entirely possible for a company to be quite “local” along the dimensions of market presence as well as supply chain and yet have a highly globalized capital base. China.com’s market base and operations are centered primarily around Hong Kong and China. Yet, in early 1999, the company chose to get itself listed on the U.S. based NASDAQ. A listing on the NASDAQ, where price-earnings ratios tend to be very high, can potentially yield many benefits for China.com: less expensive capital, enhanced ability to use stock options for attracting top talent, and enhanced ability to make stock-based acquisitions.

Last but not least, the fourth dimension, globalization of corporate mindset, refers to the extent to which the corporation as a collectivity reflects an understanding of diversity across cultures and markets coupled with an ability to integrate across this diversity. The state of any enterprise’s corporate mindset depends on the mindsets of the individuals who lead the enterprise as well as the organization that determines how these individuals interact, what information is
collected, how it is processed, and how decisions are made. General Electric Company serves as a good example of a company with an increasingly global mindset. All GE businesses are managed through a global line-of-business structure, investment opportunities are identified and assessed on a global basis, corporate leaders are pushing hard to globalize “the intellect of the company,” and, while the company has a strong worldwide corporate culture, the composition of the leadership itself is becoming increasingly diverse in terms of nationalities.9

WHAT IS DRIVING GLOBALIZATION?

Irrespective of the level of aggregation -- the entire world, an individual country, a specific industry, or a particular company -- globalization occurs because specific managers in specific companies make decisions that result in increased cross-border flows of capital, goods, and/or knowhow. Two intertwined considerations are driving managers to make such decisions on an increasing basis: one, globalization is becoming increasingly feasible; two, globalization is becoming increasingly desirable. The following trends explain why:

First, an ever-increasing number of countries are embracing the free-market ideology. The policy shift from a “planning” to a “market” mentality is well-known and has been well-documented.10 Suffice it to say that, since the end of the second world war, the gale winds of market forces have continued to gather momentum - starting from the developed economies (Table 1-3), moving on first to South Korea, Taiwan, Hong Kong, and Singapore, then to the other countries of Southeast Asia, and finally sweeping within their fold other major economies such as China, India, Latin America, Central and Eastern Europe, and parts of Africa. Table 1-4 provides evidence of ongoing liberalization in investment regimes across a whole horde of countries.
### Table 1-3
**AVERAGE TARIFF RATES ON MANUFACTURED PRODUCTS**
(Weighted average; percentage of value)

<table>
<thead>
<tr>
<th>Country</th>
<th>1913</th>
<th>1950</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>21</td>
<td>18</td>
<td>5.9</td>
</tr>
<tr>
<td>Germany</td>
<td>20</td>
<td>26</td>
<td>5.9</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>-</td>
<td>23</td>
<td>5.9</td>
</tr>
<tr>
<td>Italy</td>
<td>18</td>
<td>25</td>
<td>5.9</td>
</tr>
<tr>
<td>Japan</td>
<td>30</td>
<td>..</td>
<td>5.3</td>
</tr>
<tr>
<td>United States</td>
<td>44</td>
<td>14</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Abstracted from: *World Investment Report 1994. UNCTAD.*

### Table 1-4
**LIBERALIZATION IN INVESTMENT REGIMES**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of countries that changed their investment regimes</td>
<td>35</td>
<td>49</td>
<td>60</td>
</tr>
<tr>
<td>No. of changes</td>
<td>82</td>
<td>110</td>
<td>145</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the direction of liberalization or promotion</td>
<td>80</td>
<td>108</td>
<td>136</td>
</tr>
<tr>
<td>In the direction of control</td>
<td>2</td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>

Abstracted from: *World Investment Report 1999. UNCTAD.*

As a consequence of economic liberalization, free trade already has become or is rapidly becoming a reality within regional blocks such as EU, NAFTA, ASEAN, and Mercosur. Furthermore, the World Trade Organization continues to chip away at the remaining barriers to the free flow of capital, goods, services, and technology among countries and regional blocks. The financial crisis that engulfed much of East Asia, Latin America, as well as Russia during 1997-1999 also has accelerated the pace of structural reforms and the further integration of many countries in these regions into the global economy. As illustrated dramatically by Renault’s acquisition of a controlling stake in Nissan, countries such as Japan, South Korea, Thailand, Brazil, and Argentina have considerably eased the restrictions on foreign ownership of domestic assets and companies. In terms of the globalization of currencies, the Euro is already here; in addition, there now is increasing talk of “dollarization” (i.e., adoption of the U.S. dollar as the official currency) in major Latin American countries such as Brazil and Argentina. To sum up,
barriers to trade and investment among countries continue to decline rapidly and are making globalization increasingly more feasible and less expensive.

*Second, technological advances continue their onward march.* Table 1-5 depicts the sharp decline in the costs of air transportation, telecommunication, and computers since 1950.

<table>
<thead>
<tr>
<th>Year</th>
<th>Avg. Air Transportation Revenue/Passenger Mile</th>
<th>Cost of a Three-Minute Call from New York to London</th>
<th>U.S. Dept. of Commerce Computer Price Deflator (1990=1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>0.30</td>
<td>53.20</td>
<td>…</td>
</tr>
<tr>
<td>1960</td>
<td>0.24</td>
<td>45.86</td>
<td>125,000</td>
</tr>
<tr>
<td>1970</td>
<td>0.16</td>
<td>31.58</td>
<td>19,474</td>
</tr>
<tr>
<td>1980</td>
<td>0.10</td>
<td>4.80</td>
<td>3,620</td>
</tr>
<tr>
<td>1990</td>
<td>0.11</td>
<td>3.32</td>
<td>1,000</td>
</tr>
</tbody>
</table>


The decline in transportation costs has radically shrunk the cost of shipping goods across countries. In the case of computers and communications, the steep decline in costs has continued unabated since 1990. Aside from radical cost decline, the decade of the 1990s has also witnessed the emergence and widespread adoption of technologies such as video-conferencing, mobile telephony, e-mail, groupware such as Lotus Notes, and the Internet. These developments in information technology have dramatically reduced the “operative distance” between companies, their customers, and their suppliers and made coordination of far-flung operations not only more feasible but also more reliable and efficient.

*Third, the economic center of gravity is shifting from the developed to the developing countries.* Assuming certain infrastructural conditions, economic liberalization promotes competition, increases efficiency, fuels innovation, attracts new capital investment, and generally
bears fruit in the form of faster economic growth. Not surprisingly, the embrace of market mechanisms has allowed the developing economies of the world to start catching up with the advanced economies. International organizations, such as the IMF, already count Korea, Taiwan, Hong Kong, and Singapore -- some of the world’s poorest countries in the 1950s -- among the advanced economies. Other, even larger economies, are on their way to advancement, the most notable cases being that of China and India. Table 1-6 provides comparative data on the growth rates of the advanced, developing, and transition economies since 1981 along with projections through 2004. Despite the financial crisis of 1997-1999, on an aggregate basis, the developing economies are estimated and projected to have grown at a faster rate than the advanced economies during 1997-2000. This gap in the growth rates is expected to increase from 2000 onwards.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Economies*</td>
<td>3.0</td>
<td>2.5</td>
<td>2.4</td>
<td>2.8</td>
</tr>
<tr>
<td>Developing Economies*</td>
<td>4.2</td>
<td>5.7</td>
<td>4.3</td>
<td>5.8</td>
</tr>
<tr>
<td>Transition Economies*</td>
<td>2.9</td>
<td>-4.7</td>
<td>0.9</td>
<td>4.6</td>
</tr>
<tr>
<td>World Total</td>
<td>3.0</td>
<td>3.2</td>
<td>3.1</td>
<td>4.1</td>
</tr>
</tbody>
</table>

*28 countries; for the complete list, see World Economic Outlook 1999, The International Monetary Fund.

Indeed, the world’s economic center of gravity is shifting. The advanced economies are relatively mature and, for most industries, offer modest prospects for growth. In contrast, many developing economies are experiencing much faster growth in virtually every industry ranging from tooth paste and light bulbs to home appliances, cars, computers, Internet services, and, not surprisingly, even fine wine. Thus, any company today that seeks to grow - be it ABB, Samsung,
Sony, Coca-Cola, General Electric, Microsoft, Wal-Mart, or Amazon.com - has little choice but to go where the growth is. For the vast majority of the world’s leading corporations, such growth is rarely just in the home market.

Finally, the opening of borders to trade, investment, and technology transfers is rarely a one-way street. While it opens up new and much larger market opportunities for companies, it also opens up their home markets to competition from abroad. In other words, economic liberalization brings about not only access to a much larger market but also more intense competition. As a consequence, it fuels the ongoing race among competitors to seek a first-mover advantage in serving globalizing customers, capturing economies of global scale, exploiting the cost-reducing or quality-enhancing potential of optimal locations, and tapping technological advancements wherever they may occur. The net result of this competitive dynamic is that the quest for economies of global scale and scope has now become a self-feeding frenzy – be it in automobiles, aluminum, pharmaceuticals, tires, retailing, or Internet commerce. As the business historian Louis Galambos has observed, “Global oligopolies are as inevitable as the sunrise.”

WHY GLOBALIZATION IS HERE TO STAY?

It is important to remember that, notwithstanding the increasing obviousness of today’s “global village,” the late twentieth century is not the first time that we have witnessed the emergence of globalization. Relatively unfettered trade, capital flows, and migration of people across national borders were very much a reality in many parts of the world during the period from mid-nineteenth century to World War I. Barriers around national borders began to go up in 1914 and, it was only in 1970, that the ratio of exports to world output again caught up with the figure for 1913.
There are, however, major quantitative and qualitative differences between the globalization of today and that of a hundred years ago. Average tariff rates are much lower now than at any time in the last two hundred years. And, relative to world GDP, the volumes of international trade, foreign direct investment, portfolio investment, and technology flows are much greater than ever. In the late nineteenth century, the term “globalization” would have been interpreted largely in terms of international trade and the flows of private capital from a few rich families to finance the building of railroads and other infrastructure in the new world. It also would have referred to economic integration among a relatively small number of wealthy countries. In contrast, the globalization of today encompasses every corner of the earth, is financed by the savings and retirement funds of billions of people, and is far more multidimensional and deeper than ever before. The present-day global enterprise – with interlinked value chain activities dispersed across the world - was virtually unknown and might well have been unthinkable in the late nineteenth century. Barring unforeseeable and catastrophic developments, it would appear that, in the emerging digital era, globalization is here to stay. When we say that we are now in the digital age, what we usually mean is the following set of trends:

- **Convergence between computing and communications technologies and the spread of the Internet:** The number of Internet users worldwide stood at 349 million in mid-2000 and is expected to be greater than 750 billion over just the next five years.16

- **Ongoing increase in the power of the computing and communications technologies coupled with an ongoing decline in the cost of these technologies:** Over the last twenty years, bandwidth capabilities have increased over 1000 times while the cost of transmitting one million bits of data over one kilometer has declined by a similar factor.17
• **Emergence of ubiquitous point-and-click interfaces that are based on open standards, are cheap to set up and run, and are global:** You can now send an email, access your brokerage account, or place an order to buy chemicals or steel from almost any computer with almost any type of Internet browser in any corner of the world.

• **The anticipated roll-out of broadband communications technologies over the next 5-10 years across major parts of the world:** Always-on Internet connections running at 2 megabits per second are expected to become a reality in over 70% of the households in the developed countries over the next 5-10 years.\(^\text{18}\)

• **The ongoing explosive growth in mobile communications (for both voice telephony and Internet usage) in developed as well as developing regions of the world:** The number of mobile phone users is expected to increase to one billion people - i.e., one sixth of the world’s entire population - before the end of the next decade.\(^\text{19}\)

It is a certainty that digital technologies will continue to make ours an increasingly connected world. Nonetheless, the emerging digital era is likely to be at best a mixed blessing for the global enterprise and for those responsible for leading it. On the one hand, in a digital world, you will have radically enhanced access to a wider base of potential customers as well as resources worldwide. On the other hand, this will be true also for your current as well as potential competitors. Moreover, in the digital age, corporations will operate in a more transparent environment which will enable and foster greater comparison shopping by customers, faster imitation by competitors, and demands for enhanced accountability by investors. As Daniel Yergin has observed, “The global shareholder is going to be an ever-tougher taskmaster. It’s mathematically impossible for every company to be No. 1 or 2 in its market and for every fund manager to be in the upper quartile. As performance becomes more transparent, and
information more accessible, the pressures (on companies) will only increase. There will be no rest, no matter how great the weariness.\textsuperscript{20}

**IMPLICATIONS FOR COMPANIES**

By definition, all strategic action represents a dialog between the company and its environment. Every company must adapt to the changes in its environment that are inevitable. Yet, there are choices. First, you can choose whether to be a first mover or a laggard in anticipating these changes and turning them into competitive advantage. Second, and perhaps more critically, you often have the power to shape the direction as well as the pace of environmental changes in ways that are more favorable to your own firm.

There are several fundamental changes in the global economic landscape that we regard as inevitable. *First, the economic map of the world will change more radically in the next twenty years than it has in the last twenty*. Given the commitment of the post-Deng Chinese leadership to a widening and deepening of economic reforms, China will likely remain a particularly interesting economic story. Notwithstanding its rapid growth since 1979, China’s economy has begun to acquire bulk only during the last few years. Because of the magic of compounding, continuation of high growth rates over the next two decades would have significantly greater material effect on the world’s economic topography with each new year. In any case, China will be just one of the many interesting economic stories. Major countries such as India, Brazil, and Mexico have embraced economic reforms and begun the process of global integration only within the last ten years. As these economies continue to gather momentum, they will increasingly become major contributors to the creation of new wealth on this planet. Thus, it is a reasonable bet that, in twenty years, the economic center of gravity would not be merely shifting
towards the developing countries, it may lie squarely in the middle of what we currently regard as the developing countries.

Second, the regional composition of the world’s 500 to 1000 largest corporations will be radically different in twenty years compared with what it is today. As a consequence, intra-industry competition will become significantly more intense. The Financial Times list of the world’s 500 largest companies, based on market capitalization, for year 2000 included only three companies from India and (excluding seven companies based in Hong Kong) none from China. Given the increasing bulk of these two economies (China and India), we deem it unthinkable that, in the year 2020, the composition of the world’s largest 500 to 1000 companies will look anything like what it does today. China has already started a process of massive consolidation coupled with privatization. The list of state-owned enterprises likely to become globally prominent giants includes Baoshan Iron & Steel (steelmaking), Haier Group (appliances), Sichuan Changhong (television), North China Pharmaceutical (drugs), Jiangnan Shipyard Group (shipbuilding), Peking University Founder Group (computer software), and Legend Holdings (personal computers). As an illustration, consider Sichuan Changhong, China’s largest television manufacturer, with a production volume of about 10 million sets annually in 1999-2000. Changhong has stated publicly that it fully intends to join the ranks of the Global 500 as soon as it can. There are similar companies in a multitude of other industries that are currently in their adolescence and that are likely to emerge as major global players early in the next century. As Ernst Behrens, president of Siemens China, observed: “Western companies have been downloading technology and know-how into China intensively in the last 8 to 10 years. Of course it has to bear fruit and it does. I am certain we will be confronted with Chinese competition in the same way as we are confronted with Japanese, Korean, and western
competition today in 5 or 10 years.\textsuperscript{23}

As an illustration from India, consider Infosys Technologies, a software-services provider which in March 1999 became the first Indian company to be listed on NASDAQ. By late 2000, its market capitalization exceeded US$16 billion. According to Mr. Narayana Murthy, chairman of Infosys, a NASDAQ listing makes “doors open much easier” and gives his company the muscle to hire top professionals and make acquisitions globally, particularly in the U.S. and Europe.\textsuperscript{24} Other emerging software giants from India include TCS, Satyam Infoway, WIPRO, NIIT, HCL Group and others. Software exports from India are currently growing at 50% a year and many observers expect the export figures to grow from $4 billion in 1999 to $50 billion in 2008.\textsuperscript{25} Should these numbers materialise on an even half-way basis, in ten years’ time, software giants from India might become as well as known as Oracle or SAP are today.\textsuperscript{26} The list of emerging global giants from India is not confined to the software sector only. In financial services, ICICI was listed on the NYSE in 1999. Some of the other giants include Ranbaxy in pharmaceuticals, Reliance Industries in petrochemicals, and the diversified Tata Group in a variety of manufacturing and service industries.

To this list of budding powerhouses from China and India, one must also add rapidly growing players from other big emerging economies such as Brazil and Mexico. In short, if you think that, having witnessed the emergence of global players from Japan, Korea, and Taiwan over the last twenty years, you understand what intense competition really means, watch out. Compared to the world of 2020, this may have been just a warm-up.

\textit{Third, the ongoing technology revolution will make real-time coordination of globally dispersed operations routine.} International telecommunications prices have already fallen by over 75% over the last ten years. According to many predictions, cost and price declines over the
next ten years are likely to be even steeper – that is, we should expect to pay less than 10% of what we paid in 2000. Combine these trends with mobile and broadband telecommunications (voice, video, and Internet) and it is inevitable that real-time coordination with globally dispersed customers, suppliers, and across the company’s own subsidiaries will become commonplace over the next twenty years. One major outcome of these trends will be a further increase in the intensity of global competition and an even more desperate search for the best locations for the execution of discrete activities in the company’s value chain.

Assuming that these trends are inevitable, we believe that the following questions merit serious consideration for inclusion in the strategic agenda of any medium to large size company today:

1. What must be (vs. is) the extent of your market presence in the world’s major markets, particularly the major emerging markets, for your products and services? How should you build the necessary global presence? Rapid economic growth around the world, particularly in the emerging economies, will continue to create huge demand for virtually everything - be it shoes, cement, fast food, refrigerators, computer software, insurance, or management consulting services. Explicitly or implicitly, your decisions and actions will help decide the important question of who will supply the products and services to meet this demand – your company, your current competitors, or new entrants? Given the largely borderless nature of the Internet, many startups in the high technology sector are now realizing that they have little choice but to globalize at Internet speed – lest some other player preempt them, perhaps by imitating their business model, and occupy the global marketspace. For such companies, the evolutionary trajectory may well need to be something along the following lines: startup in year one, entry into another major region
in year two, and full-scale globalization by year three or four.

2. **What must be (vs. is) the extent to which you capture the cost-reducing and quality-enhancing potential of optimal locations around the world for the execution of various activities in your company’s value chain? How should you reduce the existing suboptimalities?** Countries differ in cost structures, in ways of looking at the world, and in the pool of talent and ideas being generated on an ongoing basis. Capturing the comparative advantages of countries effectively and efficiently can create significant competitive advantage for your company. Witness the case of Nike which must constantly scout for the lowest manufacturing cost locations and Microsoft which must constantly scout for the best software talent, wherever it may reside. Similarly, you have no choice but to look at the world not merely as a market to exploit but also as a potential goldmine to reduce your cost structure, recruit needed talent, and tap into new ideas.

3. **What must be (vs. is) the effectiveness with which you are able to exploit global presence and turn it into true global competitive advantage, as opposed to global mediocrity or even global mess? How should you eliminate the existing shortcomings?** As we suggested earlier, global presence does not automatically translate into global competitive advantage. In fact, without systematic analysis, purposeful thinking, and careful orchestration, widespread global presence can easily degenerate into managerial distraction, resource duplication, and inefficiencies. Thus, you must constantly examine whether you are indeed doing the hard work needed to transform global presence into global competitive advantage.

4. **Is the mindset of your company’s top management, indeed every employee, sufficiently global? As the world around you changes and new opportunities open up in various
corners of the world, is your company generally a leader or a laggard in identifying and exploiting these opportunities? How should you create the needed global mindset?

Managers, like all people, are the products of their origins and past experiences. It matters where you were born, what cultural environment you grew up in, where you live, who you interact with, what media you are exposed to, and what you see and hear with your eyes and ears as you go about your daily business. Being human, each one of us individually is and will remain at least somewhat parochial. However, collectively, in the form of an enterprise such as Cisco, IBM, Sony, or ABB, we do have the possibility of creating a truly global mindset that treats the entire world as its home, that is sensitive to important events in any corner of the world, and that has the wisdom to differentiate between value-creating, value-destroying, and value-neutral opportunities. You must constantly ask whether your company has that type of a global mindset today and take developmental action, as needed.

CONCLUSION

We conclude this chapter by focusing on the implications of globalization for individual managers. We predict that knowledge, skills, and experience regarding how to navigate the company in a global environment will become increasingly a core requirement for promotion to leadership positions. We also believe that the need for global knowledge and skills will rapidly become crucial not just at senior levels in the company but at all levels and in all units. A systems analyst in Stockholm may interact on a daily basis with software programmers in India. An R&D team may work on a collaborative development project spread across the U.S., Japan, and Switzerland. A plant manager in Detroit may have crucial dependencies on auto parts suppliers in Mexico, Brazil, and Germany. A sales representative based in Atlanta may be an
integral member of a global account management team serving the customer’s needs across multiple locations on a coordinated basis. Thus, totally aside from promotion to senior ranks, merely succeeding in one’s local job will increasingly depend on skills at managing across national and cultural borders. Look at the career background of Jacques Nasser, the CEO of Ford Motor Company. Mr. Nasser was born in Lebanon, grew up in Australia, joined Ford there, was posted in the U.S., Latin America, and Asia over a 17-year time span, returned to Australia, and then became the chairman of Ford Europe before moving again to the U.S. It is likely that such a picture will increasingly become the norm rather than the exception for the corporate leaders of tomorrow.

To sum up, notwithstanding the huge changes that we have witnessed in the last two decades, the extent and pace of change in the next two decades will almost certainly be much greater. In our view, the inevitability of these changes implies that companies and managers today face a relatively simple, if important, choice: get on board or get left behind.

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