A BUSINESS LEADER'S GUIDE ON LEVERAGING GLOBAL VALUE WEBS AND ENHANCING GLOBAL INDEX

WINNING IN THE Global Economy

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RAJ SEKSARIA Sanjiva Dubey



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Today's unconventional entrepreneurs and ... tomorrow's global business leaders

Preface

While EVERYONE YEARNS TO win, we know from the Olympics that only a few who can pull further and faster than others will have an opportunity to stand on the winning podium. So too, it is in business. Those who have superior strategies and can execute them with discipline are the ones to distance themselves from competition. In this book, we attempt to provide these winning strategies and approaches that any company of any size can use to chart a course towards *success*.

The history of winning against odds would have remained uneventful and uninteresting if the first major economic crisis of this millennium hadn't descended upon us in 2008–09 and slapped almost all nations and businesses hard enough to wake them up from their deep slumber of complacence. What had gone wrong, and what is the new winning formula in this brutal global economy? Why did world leaders like AIG, GM, Nortel, Lehman Brothers and many others bungle and make a beeline to file for bankruptcy? While one can blame several factors, such as sub-prime lending, inflating balance sheets, and sheer manipulation by the Wall Street, no single country or company has the solution to this crisis. The crisis has resulted in global economic slowdown indicating that both the solution to the crisis, as well as, the key to sustainable economic growth has global dimensions.

However, the slowdown and the recovery process is not merely a part of the usual predictive cycle of troughs and peaks that businesses and economies undergo. The solution is no longer the traditional one. This time, fundamental shifts are occurring in production and consumption at the global level. Leaders of the affected G20 nations are now holding regular summits to find ways to overcome the crisis and reinvigorate the global economy and work in a concerted manner to that effect.

National borders are beginning to become meaningless in a world that is increasingly based on global trade. Goods and services can now be produced anywhere and delivered globally. What matters now is the

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ability to produce them at the lowest cost, using the vast global resources. As a result, large populations and pulsating economies across the world, such as Brazil, Russia, India and China are witnessing upliftment in global consumption and economic resilience despite the slowdown.

The book is about this very quest and presents to its readers the unique and different pathways of **Winning in the Global Economy**. The recent events, be it economic turmoil and the ensuing crisis of consumer confidence and collapse of corporate giants, or even the spread of pandemics like swine flu, point to the fact that the world has traveled beyond historical concepts of managing economies and that geographical boundaries are no longer relevant.

We begin with a broad inquiry into how globalization has led to the emergence of a new world order in *Chapter 1*. It deals with the causes and effects of the global imbalance in economic development and argues that a new model of competition in the global economy has to be adopted. Hence, a comprehensive new *Global Index* to measure business performance globally is laid out. It also discusses how emerging global value webs should and can be carefully engineered for success in the global economy. The chapter outlines the key factors for winning in the global economy and sets the stage for a detailed treatment of relevant themes in subsequent chapters.

Chapter 2 describes how a new world order is emerging because of dramatic shifts in markets, human resources and technologies that enable the access to and harnessing of global resources as easily as the domestic resources. As we gaze in our 'crystal ball', many things become apparent with a startling revelation—no company can stay complacent if it has to survive and excel in this emerging global order. In the global marketplace, companies will need to respond in ways different from those in the past. They will have to pay increasing attention to the localization of goods, and leverage global human and natural resource pools. This will all be a welcome shift whereby the world will be less and less economically and digitally divided, creating opportunities for cross-country business operations on an unprecedented scale across the world.

One of the key themes of globalization is the ability of the firm to configure a superior value proposition by sourcing capability globally from sources that provide it at the best value in terms of functionality, quality and price. This theme is dealt with in detail in *Chapter 3—Emergent Global Models*. In effect, the value chain the company has been used to so far, now becomes an industry-level or global ecosystem-level value web. Just as a spider has numerous paths connecting one place to another on its web, so can a company traverse the value web, connecting with partners and suppliers in different locations and customizing superior value of its

products and/or services for its customers in diverse marketplaces. Clearly, one of the key enablers for such global value webs is ITEC (IT, Electronics and Communications). ITEC allows companies to interface with diverse sources of production partners, suppliers and consumer markets—which otherwise would have been isolated islands—anywhere quickly. This also enables them to dynamically configure capability by altering and shifting capability providers as new ones emerge with better value propositions.

Chapter 4 is the core of the book and describes in detail how to measure and enhance the *Global Index* of corporations and firms for success in the global economy. Global Index is our simple and effective formula to deal with the complex recipe of winning. This chapter deals with four primary causal factors that companies need to focus on while defining their winning formula.

When we know what our current Global Index is, and where the deficiencies are, the next natural question is what should we do to remedy them? *Chapter 5* answers this question by explaining how firms can create and sustain *Global Value Webs* that leads to the emergence of a value mosaic and new global models and strategies for winning in the global economy. In this chapter, we advise our readers to think beyond physical clusters and recommend path-breaking strategies of globally dispersing national as well as industry-level value webs.

Chapter 6—Technologies for the Global Age describes technology as one of the prime tools for winning in the global economy. ITEC innovations can be disruptive and constructive at the same time. Hence, we examine how value can be created, particularly by increasing the information content or 'informating' the business. This chapter discusses the theme of optimizing the use of global resources through effective leverage of ITEC.

The next milestone of our winning pathways is dealt with in *Chapter 7* that dwells on the prominent vehicle of the new business operations model, namely *Strategic Sourcing and Partnering* that can change business models everywhere. Proper sourcing can provide a strategic advantage since it allows a company to focus on its core capabilities and leverage other essential resources pertaining to production and expertise from other companies—in other words, something that it might not have the expertise or the ability to invest in. While it can act as a force multiplier, it must be done carefully since the products and services that are sourced are also available to a competitor from the very same suppliers. Strategic partnering all the way up to a joint venture are additional levers through which key capabilities can be protected to ensure sustainable competitive advantage. While sourcing, companies must ensure that they, in no way, compromise the products, services, quality and customer care the company may be known for.

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Chapter 8 details the principle of *Dynamic Value Integration*. This chapter discusses how any firm, small or a large multinational, can extend its Global Index footprint along eight strategic vectors by simultaneously applying various strategies that include leveraging human resources, technologies, partnerships and localization to build a unique competitive position which gives it both global and local capabilities. With such a positioning, a company can harness global resources to meet specific needs of local markets and can shift resources dynamically to meet requirements of price, response time and other unique requirements, such as localization or local content in each market the company operates in, while maintaining the leadership position in terms of product offerings, quality and value.

Chapter 9—Structuring for Global Success defines the strategic structuring or processes for a company in terms of what they should manage centrally versus what they need to have at the local level and what they can source through partners. The specific industry dynamics and the position of competitors define the key processes and how they should be structured for optimal performance. This chapter details several processes that are required to produce goods and services in a typical company and shows how best to place them strategically so that the company can be responsive to the global and local requirements, but at the same time maintain flexibility and maneuverability and simultaneously leverage both economies of scale and scope and valuable expertise of key partners. By a careful attention to the prescriptions described herein, companies can forever put behind them the issues of unstructured, static or sub-optimal processes and continue to be at the cutting-edge of 'dynamic global structuring' that leverages all the strategic levers and leaves behind all other companies.

Chapter 10—Leadership in a Multi-polar World provides the cementing glue for all the principles, practices, processes and underlying organizational structures meant to ensure that all parts of an organization operate harmoniously to produce a beautiful symphony of quality products and services to be delivered locally at the right prices wherever and whenever customers demand them globally.

Leadership in the global economy has undergone more strains than any other element of the management system and much of the prevalent theories are unable to accommodate the changing scenario with the emergence of new markets and new team compositions sourced from global pools. Addressing this issue of the much-needed turnaround in leadership roles, this chapter lays down the new action plan for CXOs of global enterprises.

Certainly, in order to drive the desired performance, companies must measure the right parameters for running business operations and take quick corrective actions. *Chapter 11—Global Management System* provides all the key metrics and the associated checks and balances to ensure proper operations at the global level.

After an extensive treatment of the positives of the global economy, *Chapter 12* dwells on disadvantages of globalization since like most good things that come with a hidden price, some of the benefits of globalization come at the expense of certain compromises. Thus, this chapter makes an effort to bring sanity amidst euphoria. While the wheels of globalization cannot be stopped, this chapter delineates the risk factors that firms and society must take note of.

Finally, *Chapter 13* summarizes the entire book and makes a plea for concerted action. The book is a compendium of the best practices drawn from our experience and from leading innovative small and large global players. It goes further in terms of analysis and defines the winning strategies for companies of any size. All can succeed and so can you if you craft the right strategies based on the guidance in the book. All it needs is to recognize that you need to *act*.

Happy reading!

Raj Seksaria Sanjiva Dubey

Acknowledgments

THIS BOOK IS A culmination of our decades of experience in working at senior positions in global companies, developing and managing their business strategies and businesses, and interacting with the brightest minds in consulting, management and academics, and those with a fierce entrepreneurial spirit that continually challenge the conventional wisdom and venture into unexplored frontiers of business. We have tried to capture unusual yet proven ideas, and developed others based on comprehensive analysis that ties together innovation and complex business concepts. All of these have been woven together into detailed business strategies that work both at the local level for owner-operated businesses and at the international level for the most complex of global businesses spread across several countries and offering multitude of complex engineered products.

We would like to thank several of the well-known global organizations including the World Bank and the US Census Bureau that have been constantly researching various demographic patterns. This information was very valuable in helping us make long-term economic projections and develop unusual business insights not hitherto observed in the business or trade press. We believe that these insights will provide valuable clues to the working of business leaders of tomorrow.

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> Raj Seksaria Sanjiva Dubey

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O N E

Globalization—Emergence of a New World Order

I seem to have been only like a boy playing on the sea-shore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me ...

Sir Isaac Newton

CONOMIC ACTIVITY TODAY IS always talked about within the global context. No longer do individuals or companies talk about production and customers within a local geography or country. Changes are occurring at a pace faster than all experts had predicted. While, initially, one was trying to keep pace with shifts in markets, production bases and technologies, the problems have now been compounded by a shrinking of the global economy. Since the industrial revolution, major economic activity had been centered in a handful of nations for almost 200 years. Today, with the changing scenario, governments, companies and individuals need to re-examine traditional assumptions and carefully craft strategies that will position them to be winners tomorrow. Many countries that were previously considered underdeveloped and largely ignored have channelized their resources and are able to effectively compete in the global economy. The industrialized world is beginning to feel the power of these large and resource rich nations. A new world order is emerging. The following sections will describe what is happening around the world and why. We will further discuss how to tap into the opportunities that these changes have created. Our discussion will be focused on the following sections:

• The unexpected is happening—describes the changes in the global economic sphere that were never visualized before due to liberalization and improved connectivity across the world.

- 2 Winning in the Global Economy
 - Unprecedented economic challenges—underlines the associated economic upheaval caused by new players and new opportunity space.
 - **Major demographic shifts**—summarizes the changing pattern of production and consumption pattern across the world.
 - **The global imbalance**—deals with the net effect of all the above, and a number of key imbalances leading to tilt towards new countries and opportunities.
 - Shifting bases to make competition global—deals with new models for fighting the global competition and parameters that will help companies to evaluate themselves.
 - Global dispersion of economic success factors—illustrates how the economic success factors are no longer local in nature but are globally dispersed and should be addressed as such.
 - Keys to the future—describes the factors that will constitute the winning formula in the increasingly connected and open world.
 - Innovation the key to winning in the global economy—finally summarizes the over arching role of continuous innovation in each of the success factors.

THE UNEXPECTED IS HAPPENING

The current global economic crisis has shaken not only leaders of industries, but governments as well. Other than a rare few, most predictions by business gurus, industry analysts and Wall Street pundits have been incorrect and corrective measures so far have proven to be futile. The rapid acceleration of the downward economic spiral has forced thought leaders to seek predictive clues and frameworks that can provide a mechanism for addressing current as well as future challenges.

As a result, many of the leading economic theories, particularly the free market philosophies, have come under severe scrutiny thereby increasing concern on whether such philosophies can work by themselves, or, in fact, some regulatory oversight is required to ensure effective longterm functioning of companies, markets and economies. Governments are assessing the most effective ways to manage their economics for sustained long-term growth, so that no such events as the economic meltdown of 1929, mostly limited to the US, or that of 2008, which has had global ramifications, occur again. During recessionary times, governments are often tempted to resurrect trade barriers, and advocate greater government control and ownership. While some of these short-term steps may be necessary, most of them puts us back into the dark ages of barter trade and socialism. These lead to the stifling of competition and innovation, and the result is mediocrity, economic and technological stagnation.

These times, however, also provide an unprecedented opportunity to harness human ingenuity and innovation. Innovative technologies, as in the early 20th century (aircraft, mechanized transportation, etc.) and the late 20th century (personal computers, Internet, mobile technologies, etc.), can provide the rescue mechanisms to help us navigate these troubled waters and chart a course to a bold new frontier.

With the technological advancement in communications, it is easy and inexpensive for people to connect with each other worldwide. Never before in history, have we had such an opportunity to work together as a race and solve the most difficult problems we face. These include the potential to provide cures for diseases that have challenged us in the 20th century as well as emerging ones. It is this interconnectedness, coupled with human ingenuity, the power of Internet, and ability for all of us to work together within a unified world for the greater benefit of all, that we will explore in this book.

UNPRECEDENTED ECONOMIC CHALLENGES

Joseph Schumpeter, one of 20th century's eminent economists, believed that capitalism has sowed the seeds of its own destruction¹. All theories suggest that capitalists will invest to produce goods and services for their own benefit, and simultaneously as these goods are consumed, they will provide the benefit of these products to their customers. This will result in a win-win for all participants, i.e., the capitalists, the consumers, the producers or the workers for whom jobs are created for the production of goods and the government which collects taxes to provide the core shared services for the society. Capitalism suggests that since there is free competition, many producers will enter the production space, consumers will increasingly demand better and better products, and it will result in an upward spiral of excellence, profits and growth of an economy. This clearly was the common thinking during the past 200 years from 1800-2000 as the world saw great economic growth. However, with increasing pressure from analysts, and separation of ownership and management, the shortterm focus on profit led to a total lack of checks and balances on those at the helms of large enterprises. Those who could manipulate business decisions and investments, often drained large, prestigious corporations

¹ Robert J. Samuleson, *The Economic Times*, 26th March 2009.

of their assets for personal gains. The recent global economic crisis has resulted from risky and improper decisions taken by few based on an extrapolation of exponential growth throughout the world from 1980 to 2000. How could seasoned business executives have forgotten about the laws of gravity and unsustainability of meteoric growth rates? While financial services, housing and manufacturing have been hit hard, many large and prestigious companies in almost every industrial sector have either already disappeared, are under bankruptcy proceedings, or are being artificially propped up by governments at the expense of taxpayers.

While keeping the recent economic turmoil in mind, we need to look at the emerging economic landscape, analyze and systematically identify potential scenarios and chart the course forward. While traversing uncharted territory is not without its risks, those that seek out and systematically invest to take advantage of the megatrends² in these tough times will surely reap the benefits tomorrow. Those who are conservative or continue to promote the status quo of a bygone era will have a tough road ahead.

In this book we try to find answers to these questions and many more. What are the challenges of globalization as we struggle to revive the worst ever recession since 1929? We will examine some of the major trends, global shifts and capabilities which will provide clues into structuring companies whose future can be perfect in an ever changing world where the rate of change is accelerating due to a vast array of technologies that are coming out frequently.

MAJOR DEMOGRAPHIC SHIFTS

The share of G7 nations (USA, Canada, UK, France, Germany, Italy, and Japan) in the Gross World Product (GWP) is diminishing. After World War II, the US economy grew rapidly and typically accounted for one-third of the GWP of approximately \$35–40 trillion, and the G-7 typically accounted for 90 per cent of the GWP. However, recently economists have started talking of the Emerging or the E7, which are the populous and rapidly developing nations of China, India, Russia, Indonesia, Brazil, Argentina, and Mexico. There are, of course, other well-known and fairly well-developed economies, which have a fair share of the world markets and trade, but given their size will decrease in importance. These include

² Megatrends is term, made popular by John Naisbitt in his bestseller book *Megatrends* (1982), is used to denote major shifts in economy, technology or industries that take place over period of time.

the Nordic countries, Switzerland, South Korea and other Asian tigers including, Malaysia, Singapore, Thailand and Taiwan.

Both the Chinese and Indian economies are projected to surpass the US economy, at least on a PPP basis, by around 2020 and 2045, with India and China being about the same size in 60 years and being about twice the size of the US economy!

Poor nations with large populations, once considered doomed, have changed this equilibrium. China has demonstrated unmatched manufacturing prowess just as India has done in knowledge-based industries. It has taken a long time for some of these economies to reach the 'take off' stage when they have all the necessary ingredients and infrastructure for sustained economic growth. Most of these countries have built up their core infrastructure themselves through savings over a long period of time, unlike the US sponsored rebuilding of Western Europe and Japan after WW II, which gave rise to the G7. In addition, these countries have vast populations who are younger and highly trained, and who are rapidly entering into the productive economy. These individuals provide a two-fold advantage by providing productive resource for the economy and then themselves being consumers, which further accelerates the growth of the economy.

The G7, which closely guarded entry of free trade participants so far, have to now adjust to and embrace the new world order, one where there may be as many as 20–30 major economic players. The world is no longer subservient to the G7, which have historically controlled technology and capital. Countries and companies all over the world need to recognize the megatrends that will see a shift in economic power. Those that recognize these changes are more likely to be able to take advantage of the opportunities and will be the ones that will continue to be successful tomorrow.

The new economic powerhouses have to leverage the other economies and integrate them into their operations through strategic sourcing. This can often reduce costs due to lower cost structures in the other economies and can also provide unusual insights into innovative approaches used in other economies. The General Electric Company (GE) with global operations in many different industries is quite good at this—they use the best practices and innovative approaches from around the world and incorporate them quickly into their business globally.

Secondly, even as companies set up sourcing operations in other countries, they gain better understanding of the markets and should look at tapping into the markets in a big way for their products and services. Companies have to expand their markets and start thinking of G15 immediately, and perhaps G30 as a target space for the next decade. Even

as we say this, only the large corporations will try to play in 100 countries or more ... as this will require local participation, local management and local teams. However, companies have to be careful that the western mass-produced models are not duplicated as they enter new countries. Models that work locally, need to be recognized, learnt from and the best of all worlds incorporated. Practically—this requires local customization of products, local selling techniques and perhaps even leveraging locally successful products and marketing them globally.

THE GLOBAL IMBALANCE

There are some megatrends that are the harbingers of an impending dramatic change in the global economic landscape. We will discuss a small subset of the ones that are most pertinent for businesses and entrepreneurs. They should closely watch these megatrends and position themselves to take advantage of them:

- Rapidly dropping costs of key technologies—With increasing pervasiveness of technology, every company is pushing their technologies in the global landscape, resulting in heightened competition. With tariff reduction by government, costs of almost every technology or its components, such as telecom, computers, internal combustion engines and sophisticated electronics are dropping rapidly, often by orders of magnitude in a short time. By leveraging these technologies towards the optimization of business processes and global supply chains, the cost of almost every product on a constant dollar basis has been declining in recent years.
- **Increasingly interconnected world**—Low cost computer and telecom technologies allow everyone on the planet to affordably connect to the world of information, production and consumption, for both business and leisure.
- Ability to harness global resource pools—With efficient telecom, trade and transport, there is global connectivity and anyone can add value to the global economy in any form, from labor-intensive activities such as manufacturing to knowledge activities such as analysis, research and engineering.
- **Demand of improved lifestyle everywhere**—With global television coverage, there is demand for enhanced quality of life by way of better education, medicine, food and technologies.
- **Disruptive technologies**—With technological explosion we are also likely to see disruptive technologies grow at a rapid pace. These are technologies that surpass the older ones and provide a

better cost versus value proposition and sometimes even permits things that were not possible before. These enable faster global integration and improvement of general lifestyle and well-being of humankind. Some examples of disruptive technologies are the printing press, aircraft, personal computer, Internet technologies, and consolidating portals for a range of services such as Yahoo, eBay and iPhone. We will cover this in more detail in Chapter 5.

• **Pervasive knowledge**—Education in advanced technologies, engineering and medicine are now available to just about everyone in the world. In places where education in advanced sciences is not available, students often travel to other countries like US, Europe or Australia, to study and then bring the expertise back to their home countries for further leverage. After World War II, this was the approach used by Japan, Taiwan and South Korea who sent students by the droves to the US to learn advanced technologies. These trained experts then brought back knowledge in key technologies to their home countries and provided the impetus for rapid growth of automobile, shipbuilding and electronics industries in their countries, so much so, that they eventually attained a dominant global position in several of the industries and continue to maintain it till today.

When we examine the global landscape along some simple dimensions, we can see an increasingly imbalanced world. From an economic perspective, countries can be grouped into four categories:

- **Capital and Knowledge-Rich Countries** such as the G7, which have very high labor rates, and historically have not had significant market reach outside the G7
- Natural Resource-Rich Countries such as the OPEC, Russia and South Africa, which are rich in natural resources but, in general, lack skilled expertise and human capital
- Human Capital-Rich Countries, which lack infrastructure, financial capital and access to global markets. They also, generally, lack a rich suite of products that they can sell in the international markets
- All Other Countries, which by and large, lack capital, expertise, human capital and market access.

While some countries are much more dominant economically, no one has everything, and every nation can take advantage of this global imbalance and shape things to their benefit. We will treat competitive positioning of countries and what they can do in detail in Chapter 8.

The developed world, which consists mostly of the G7, had no major problems till about 1980. From an organized economic perspective, there was no major imbalance since they basically produced and consumed everything. However, due to the six megatrends described above, a major global imbalance has occurred. The world is no longer isolated or uni-polar, or centered around the US. It is increasingly multi-polar. Some countries have already benefitted greatly from this global economic imbalance. The earliest beneficiary was the OPEC who recognized the power that their key resource, i.e., 'black gold' or oil had, and were able to successfully unite and raise the price of oil from around \$5/barrel in the early 1970s to around \$30 in the late 1970s, and well beyond \$100 at times during the this decade. The next big benefactor was China that was able to harness its large population base at dramatically lower labor rates, resulting in the shift and creation of many manufacturing jobs in China. India soon followed by leveraging its low cost and yet highly trained talent pool in knowledge industries including IT, research, engineering and medicine.

The early leaders recognized these trends and invested aggressively, internationally. They were not only able to leverage these global resource pools, but also positioned themselves as players in the new emerging markets and were creating wealth from sourcing operations. The coming of the new millennium in 2001 changed the global economic landscape altogether. Due to lower costs of global connectivity and now proven models of global manufacturing and knowledge trade, the race was on. Governments now began to look at ways to harness their resources for the improvement and well being of their population. As a result, global trade barriers began to drop and suddenly the entire world could participate in the global economic activities from production to consumption. This by no means suggests that all countries were suddenly equal, consuming and producing at the same level as the G7. The general economic condition has improved dramatically the world over and capital good such as phones, computers, mechanized transportation, university education, medicines are now increasingly becoming available and affordable with the increasing population masses of the world.

SHIFTING BASES OF COMPETITION

In our work, we have observed companies compete along the value spectrum that extends from cost-based competition to value and finally differentiated expertise. To be successful today, this now has to extend globally as shown in Figure 1.1 below.

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FIGURE 1.1



Details of each form of competition are described below:

Cost Based Competition

Industries by and large grew up competing on a cost plus philosophy of maintaining a specific margin over their costs so they could provide the return on investment that the owners and investors were seeking. This resulted in industries competing primarily on the final price to the customer. In order to achieve this, companies pushed the mass production or economies-of-scale model, and proceeded to mass-produce products at the lowest cost. While there are still many industries that have to often compete based on cost, they need to rethink how they can enhance the value in their products and create enough differentiation so they can move further up in value to the next phase of competition.

Competing on Value

Differentiating a product or service can lock a customer in for the longterm. When a product has no effective differentiation, the customer will quickly switch to another product and buy from the provider who has the lowest cost. This is often evidenced when customers buy petrol, and since, they effectively see no differentiation in the petrol, they switch providers

almost every time they fill their gas tanks. Companies can differentiate their products through better quality, service or ease of doing business even though their core product can essentially be the same. In the massmarket category, it was difficult to differentiate one car from the next until the Japanese differentiated their cars on the basis of quality and effective bundling of options that created enhanced value for the customer. As a result, the term 'value' began to automatically get attached to any automobile or electronics that came from Japan. This was more so soon after the OPEC oil embargo of 1973. Call it good timing or sheer luck, the introduction of fuel efficient cars at the height of the OPEC oil embargo in 1973 provided the much needed impetus for the Japanese auto industry and its economy as a whole. Even today, Japanese cars draw a fine balance in terms of value.

Competing on Expertise

Promoted by Prahalad and Hamel in the 1990s, the term 'core competencies' became a common phrase in the hallways of all Fortune 500 companies. So much so that every company scurried to find out what their core competencies were, and then set up groups to manage and nurture these. When a company congeals or embeds its core competency or distinctive expertise in its products, it is very difficult for a competitor to displace it. As the product attributes becomes richer, they can further outdistance their competition, just as Intel has done in logic microprocessors, and Gillette in shaving products for men and women.

However, none of the above three methods are sufficient for success in the global landscape. While a king on their home turf, many companies are finding it an uphill task when competing in developing economies. Much to their surprise they are finding very able competitors in many local markets, some of who are becoming formidable global players and even challenging the largest of companies on their home turf. One would normally think that all aircrafts for commercial aviation comes from the US, UK or Western Europe, countries which had a heritage of making both military and commercial aircraft for more than half a century. Today, we are surprised when we see Embraer from Brazil, which makes the most sought after regional jets in the 50 to 100 passenger category, a segment left wide open by Airbus and Boeing where they can never effectively compete with Embraer. This is because their cost structure can today support only the manufacture of large aircrafts. Similarly, global auto majors thought it would be easy to sell cars in India, but much to their surprise, have had a tough time competing with locally entrenched players such as Maruti, Mahindra & Mahindra and Tata Motors who are focused on the local

market requirements and comprehend local road conditions, serviceability and affordability. As a result, despite major initiatives in the past decade, international car manufacturers have acquired less than 20 per cent of the Indian auto market.

Competing on Global Index

The emergence of global value webs

The earlier models of production and consumption, primarily in the G7, did not leave much margin between how much was produced and how much was consumed. However, because of global interconnectivity, leading to an increasingly singular world, companies aggressively sought to reduce their cost and improve customer value by exploiting global resources. This resulted in value chain disaggregation and sourcing components of the value chains from other providers or countries by acquiring them at lower cost became the way to go. Early forms of value chain disaggregation and specialized sourcing were commonplace in the aerospace industry, albeit within a country. Aircraft manufacturers, recognized early on that they did not have the resources to put together the entire aircraft, and optimized the overall manufacturing value chain to do systems integration while sourcing engines, avionics and hydraulics from other specialized manufacturers.

Value chain disaggregation and reaggregation has now spread globally across the value spectrum and has resulted in the rise of global value chains that stretch across hundreds and thousands of companies. As an example, the food supply system which previously had farmers, a few intermediary factories, and the final retailer, has become very complex. Today, the food supply system in the US ties together thousands of farmers, fisheries, packagers and shippers in many countries who then ship their products such as fruits, seafood, dairy products, confectionaries and wines to hundreds of distributors and retailers. This complex value system ensures that products reach the retail shelves in the freshest and best condition possible while minimizing inventory and wastage in the system. This is possible only through the complex integration of information systems across all participants. Successful supply and distribution chains of almost any industry in any country have this complexity. Take the instance of an auto dealership in a developing country. The company maintained an inventory of thousands of parts in its service center with a comprehensive ERP system which extended into service scheduling, mechanic allocation, parts reordering, tracking of individual customer billing and direct settlements with insurance companies, all done electronically.

While there are some early indicators of a few industry leaders, who are pursuing innovative new ideas, the full potential of what we have

before us and how to elevate the economic well being of the world, is yet to be unlocked. This, we will systematically discuss further ahead. Progress is no longer limited to just the traditional 'haves' or the rich nations and large global companies. The Internet, affordable personal and mobile computing devices and powerful automation have leveled the playing the field. Now, regardless of the historic position that one may had, is the opportune time for all to play effectively in this complex, interconnected, global web. What one needs to do is to assess their specific capability, competency or expertise, and how to integrate it into the global economic production system. This is what we term as 'Global Value Webs' and we will treat this in more detail in subsequent chapters.

FIGURE 1.2

Neuro network



Global Value Webs are like a neuro network as shown in Figure 1.2, where each neuron is exchanging or passing on information to another neuron that is it connected to. If any of the cells begin to fade or die, there are enough alternate paths in the network. The system dynamically reconfigures itself and continues to operate or ensures that information is passed from the receptors to the brain within living beings. Similarly, a global value web has a multitude of connections that provides redundancy in capability through linked islands that have similar capability, and when one island is more efficient than another, or another one appears, the system automatically reconfigures itself into a new optimal structure. This is the essence of our thesis that global value webs are emerging and winning in the global landscape requires their correct structuring in order to provide redundancy, flexibility, maneuverability and reconfiguring capability when required, in order to deliver value consistent with customers' needs within a global context. Globalization—Emergence of a New World Order 13

Leveraging global value webs

Compared to today's pace, the relatively static world from 1950-1990 began showing signs of change about two decades ago. While there were some early indicators of global economic upheaval, the economic and corporate powers of the time tried to fight the global megatrends by continuing to leverage trade barriers or otherwise promoting the status quo by whatever means they could use. Early examples of this include the creation of quotas for auto imports in the US in the 1980s even though the Japanese and Germans were producing far better cars than the Americans, and were rapidly gaining market share both globally and in the US. This slowed the better manufacturers as they had to set up plants in the US to bypass the quota system but further ahead gained them strength both in the US and worldwide. The policy of protectionism provided a way out for the US auto companies who never examined their full operations in detail or what they needed to do to be globally competitive, i.e., efficient scale production, harnessing lower labor cost pools, providing cars consistent with current market demands of style, reliability, quality, fuel-efficiency, etc. These same issues have come back to haunt the US auto majors who are now in bankruptcy and are being restructured under the purview of the US Government. The key question is: will the leaner and meaner restructured companies still survive a decade later?

The fact that the world is changing dramatically was known to everyone for a decade or two. However, the stock market analysts have pushed business executives to manage the profitability of businesses on a quarterly basis resulting in a near term orientation for business management which often compromises the long-term positioning. As a result, many companies have managed for short time profit maximization, which has resulted in an overall lower risk strategy for expansions. However, winning in the global economy is not about taking a low risk position; it is about bold moves to open up new frontiers. Surprisingly, companies have nowhere to expand within the G7, and in many cases, even in their home markets. The key growth areas are the emerging markets, and one needs to take calculated risks and be aggressive in these markets for future growth prospects.

We will discuss all of these models in detail in Chapter 8.

GLOBAL DISPERSION OF ECONOMIC SUCCESS FACTORS

Earlier economic models taught at most business schools talked about only three elements for an economically viable enterprise—these were plant and machinery, labor or human capital and capital for investment. However, this is a relatively simplistic model since, it doesn't include two

other factors, which are increasingly important within a global context. For too long, governments have erected barriers that protected their home industry, and so, even though a company could not be competitive in a free global market, it continued to flourish in its local market. It almost seems like governments were cohesive in thinking of these solutions. For instance, in order to protect and develop their individual local industry in one of the first technologies the world saw in the 1900s, different countries set different voltages and different pin configurations for electrical outlets. This is a problem that still haunts many a jetsetter. Finally, technology or specific intellectual property is key to sustainable success. Often companies spend a lot of money to develop technologies and products such as pharmaceuticals, computer chips, propulsion technologies and the like and want to ensure that they benefit both from their technical brilliance and their willingness to take economic risks associated with both product development and subsequent market promotion. In our view, in the global model there are five major factors that need to be considered for success. These are shown in Figure 1.3 below.

FIGURE 1.3



Five factors of economic interplay

Legislation

In the past, economically prosperous nations had the three primary factors, i.e., capital, plant and labor at their disposal. In addition, they developed most of the world's technologies, and therefore, controlled products that leveraged those technologies. Further, to protect their interests, they erected barriers that prevented the flow of technology out of their country as well as the inflow of lower cost labor or alternative technologies from less prosperous nations.

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Our model shows a dotted line along the center which symbolizes legislative control that prevents flow of the other important factors across geographic boundaries. This protectionism ensured that goods were primarily produced within their shores and it prevented other nations from rising since they lacked one or more of the critical ingredients for success. However, technology has changed all that. In the emerging global markets, capital began to flow freely around the world, beginning around 1990, and labor could traverse country boundaries without actually moving, as in the outsourcing of manufacturing, or offshoring of knowledge work. This allowed capture of labor at low costs that were now embedded in the products sold throughout the world and knowledge could flow easily over the wire through computer systems and the Internet. While legislation can prevent the physical movement of individuals across country borders, no form of legislation can prevent global labor leverage over the wires.

Successful companies from economically dominant countries should no longer rely on legislation to protect them. Instead, they need to recognize these megatrends and take advantage of them. They already have the advantage of having the technology, knowhow, and deep pockets, and with it can rapidly exploit the global resources and markets to their advantage. In fact, if anything, instead of seeking protectionism they need to demand increased market access and flexibility in making investments in the emerging economies.

The world is increasingly interdependent. There was a lot of hue and cry about loss of jobs in manufacturing and knowledge sectors at the time of the 2008 US elections and many hoped that the new president would live up to his promise to protect jobs at home. When Mr Obama was finally elected as the President, there were hopes that he would provide tax incentives for companies that create jobs at home rather than abroad. This is a sharp contrast when 25 years earlier, Ronald Reagan the then President of the US, provided tax incentives for US companies to expand rapidly internationally. Many had hoped that the US Secretary of State, Hillary Clinton, would talk tough with the Chinese leaders on her visit soon after the new government was in place in early 2009. However, instead of talking tough, the Secretary asked the Chinese to buy a huge amount of almost zero percentage rate US bonds to fund the huge US government borrowing that was, in turn, required to fund the stimulus packages to save the core US industries of banking, insurance, housing and transportation. When asked why the newly elected officials had not lived up to their campaign promises, her response was, "times have changed."

Indeed, times have changed, and if history provides any lessons, the change will only accelerate and traditional positions of strength will not

so remain forever. However, those who recognize that these changes are occurring can take the necessary actions while the sun is still shining so they are not left out in the cold.

Capital

Since 1990, there has been excess capital in the world and money is chasing good ideas all over. This just didn't happen due to the insight of a few brilliant companies, but because they began losing their edge. BRIC nations and other Asian tigers, most of whom had developed their own industries using a planned economic approach so they could best allocate their scarce resources, soon started making inroads into the turf of the traditional incumbents with dominant global positions. These incumbents were forced to respond.

Today, capital is available freely and all countries are allowing foreign investments and ownership in the hope that new jobs will bring with them economic prosperity and well being to their nation. Not only is foreign direct investment or FDI flowing freely into Asian countries, and from Argentina to Zimbabwe, but also technology and expertise to tap the vast human resource potential. Today, some of the most modern high-tech manufacturing facilities that produce advanced computer chips, storage devices or generic medicines are located in countries such as Thailand, Malaysia and Vietnam. While, these countries are most likely to be lowcost manufacturing hubs for the more advanced nations, several other nations such as Brazil, China and India are also attempting to develop the most advanced future technologies themselves. Take the instance of South Korea. Despite being a relatively small nation, it has systematically invested in advanced engineering education and technologies and has demonstrated great prowess in this area by producing some of the best cars, appliances, electronics and entertainment gadgets of the 21st century.

Plant and Machinery

Over the past two centuries, most of the industries were based on heavy machinery that required large amounts of capital, which only a few nations were able to invest. With technological advancements, the cost of production has dropped dramatically in the last 100 years. The steel mills built during the mighty age of industrialization of the UK and US can now be built for a fraction of the cost in new destinations such as Korea, China and India. In addition, advanced technology is permitting previously undeveloped economies to completely bypass various investment cycles such as the wiring of the country for telephony.

The issue now is no longer one of plant and machinery, but of the total cost of production, which includes the human component. As we mentioned above, capital is available freely, and while companies within a country may not themselves have money to invest in huge infrastructures, large global players hungry for the uptick on their ROIC³ are seeking places where they will gladly invest billions of dollars just as GE, Siemens, Coca Cola, Nokia, Airbus, IBM, Toyota and many others are doing throughout Asia and Eastern Europe. This investment in the developing parts of the world gives them many advantages including access to lower cost of labor, capital from local markets, preferential tax treatment by these government eager to see economic growth in their countries, and finally, access to a whole new customer base within the country where they are investing and creating jobs. Clearly, this is a win-win situation for the investing company, those employed locally, consumers who suddenly have access to the latest hi-tech products, and the government whose coffers keep filling with additional tax money due to greater economic activity.

Technology

In the past, this factor ordinarily referred to basic technologies that were either embedded within the product, or resulted in the entire product in itself such as aircraft, medicine or telephone. Many of these inventions were the forte of American and Western European nations. Today, technology has an additional connotation, since within the technologies of the late 20th century, are key enabling technologies that allow global leverage of all resources and capabilities.

The computers and the Internet have democratized knowledge sharing at such a rate that the knowledge and technology gap between the West and East, which was often thought to be hundreds of years apart and unfathomable, has all but disappeared within the last 10 years.

Companies will still need to protect their specific technologies and intellectual capital, but this will no longer be restricted to the secretive laboratories in their home countries. Instead, to speed up cycle times and to harness potentially innovative ideas globally, development will be done around the world, and companies will have to find solutions to protect their core competencies, technologies and expertise in a globally dispersed environment.

³ ROIC is an acronym for denoting Return on Invested Capital, a measure of how well a company is getting returns for its investment. It is a ratio of, net income after taxes/net assets deployed.

Skills and Expertise

Knowledge is available freely in the best American, English and German institutes. Students from around the world have been studying and harnessing the knowledge available in these great institutions and then bringing it back to their homes in Asia or Africa. In addition, as demographics have shifted and opportunities have been created in their home countries, many Asians who had migrated to the western countries have gone back, and with them they have taken back key knowledge to rapidly develop industries in their home countries. As a result, Taiwan has one of the most advanced capabilities in computer chip manufacture, Korea in electronics, and China and India in many industries including power generation, railroads, construction, IT and medicine.

Besides knowledge being pervasive and easily transportable in a world connected through planes and the Internet, the knowledgeable population center of the world is shifting very quickly from the West to the East since the most populous nations of the world all are located in Asia, and they have all been focusing on education of their citizens. Today, both India and China produce more than three times the engineers and scientists the US produces, and collectively across Asia the number of engineers and scientists as a percentage of the world resource is startling.

At the center of this transformation are China and India, which alone have 40 per cent of the world's population. As an example, more IT work is done in India than in any other country. This amount was virtually zero in 1995 when more than 70 per cent of the global activity was centered in the US, which was then and still continues to be the largest consumer of computer systems and the applications that run on them. Today, India can participate in the implementation of world class IT systems. Both Intel and Microsoft have huge centers in India where they co-develop their chips and operating systems driven by their teams in North America. In fact, almost every Global 1000 company is now sourcing IT and knowledge related work from India either through their own captive operations or by outsourcing to a provider with operations in India.

So, What has Changed?

The G7 had, and continue to have, visa restrictions and quotas that prevent free flow of human capital across their borders. However, these barriers of protectionism could not prevent the flow of human expertise over wires. Electronic access to a large trained resource base at a fraction of the cost has suddenly changed the dynamics. Even though they were considered leaders in their industry, and were considered to have progressive thinking, the Big 5 IT companies were in denial mode until 2001 when Accenture decided they were not going to lose deals anymore because of the \$300 vs. \$25 India costing and set up shop in India. Beginning in 2001, Accenture rapidly increased its taskforce to 40,000 in 2008, and now has more people working in India than any other country.

The point is that any of the non-local factors of capital, expertise, machinery and technology will flow to the place where it can best be leveraged. Information technologies will do the rest by interlinking the globally dispersed capabilities of plant, machinery and human resources.

What will this Lead To?

Companies must tap into the populous nations in a big way simply because most governments are supporting free trade. This is likely to be the way to the future and is unstoppable. Whether it is the farm subsidies in the US or relatively closed markets of the East, each one of these policies will be passé. Companies must learn to compete in a free world without protections. Just as water seeks the lowest level, so also will production of goods and services move to where they can be produced at the best overall productive value of cost and quality.

The auto industry provides a good illustration of moving and shifting of production to the lowest cost centers, assuming minimum required standards of quality are met. Even though the French and the Italian made and continue to make some of the finest cars, they could not compete in free US market and withdrew in the 1980s as their products were considered either too pricey or of poor quality. The producers, however, continued to survive and even flourish in their home countries due to protection and parochialism. Interestingly, none of the US based auto companies may survive in the US without government intervention—demonstrating their lack of responsiveness to the global trends, or incorporation of learnings from around the world—something the Japanese, the Koreans, the Chinese and the Indians are doing aggressively, and the Europeans to a lesser extent. Similarly, the unfathomable leads of companies and nations are getting decimated in years, not decades⁴.

A new world order is emerging—an order in which all nations and individuals can participate to improve both their economic well being, and that of humanity, since the entire world's resources can be tied together

⁴ Gunnar Myrdal, Nobel Laureate in Economics in 1974 noted in his landmark research 'Asian Drama: An Inquiry into the Poverty of Nations', that underdeveloped economies are 100–150 years behind the developed economies and the gap is increasing!

into a productive whole to systematically meet the needs of our genome, and to seek out and find unimaginable treasures in the yet undiscovered world and the universe.

KEYS TO THE FUTURE

Large Knowledgeable Human Resource Pools

Just as the 20th century belonged to America, many have observed that the 21st century will be an Asian century. Asia accounts for almost 70 per cent of the world's population and will be the major producer and consumer of the global resources in time to come. While a few Asian nations have been economically successful in the past, power is no doubt shifting to the two most populous nations in the world, namely India and China, which collectively have 40 per cent of the world's population. Both these nations have vast human and natural resources, which are now being aggressively deployed for exports. This, in turn, is leading to further acceleration in the development of their domestic productive infrastructure, which in turn is making them increasingly competitive globally.

Although many theses have been written on the BRIC nations or the E7, all of whom will play an important role in the next 10 to 20 years in global development, we will make a special mention about India and China since they have the ability to change global dynamics for long periods of time. In the next two to three decades, capital and economic prosperity will move from the west to the east.

Do India and China hold the key to the future?

According to a US government study⁵ China and India are winning back their two century-old positions when they produced approximately 30 and 15 per cent respectively of the world's wealth. For the first time since the 18th century, both these counties are set to be the largest contributors to worldwide economic growth and are expected to surpass the GDP of all other economies except the US and Japan by 2025.

While they have many challenges ahead of them such as poverty, unfathomable economic disparity, issues associated with large populations, today, nevertheless, they have a well-educated burgeoning middle class which is not only driving world productivity, but also providing the world with a large new consumer base. This creates great opportunities for the current economic powers to further grow by pushing in-demand products

⁵ Global Trends 2025: A Transformed World from the Government Printing Office (GPO Stock #041-015-00261-9; ISBN 978-0-16-081834-9).
such as cars, electronics, appliances, designer apparel, handbags and a myriad other consumer products. However, with this opportunity come challenges since these two countries alone are adding 1 billion people into the world's productive workforce, and with it they are driving down the labor rates globally, which in turn, is resulting in job displacements in their home countries.

China has become a manufacturing powerhouse of the world. According to estimates⁶ its manufacturing sector has over 109 million in the workforce as compared to 57 million that the G7 nations have as a combined group.

While China put its best face forward during the Olympic spectacle of 2008, it is nevertheless a poor country where the per capita income is still below \$3000/year, something less than one-tenth of that of any of the developed nations. China continues to invest in its infrastructure, factories and human resources, and is well positioned for long-term prosperity. The recent slowdown has hit China hard, where the World Bank has forecast a growth rate of 6.5 per cent, which appears like a recession as the country has been used to double-digit growth rates for the past three decades.

Similarly, India, which has the largest pool of English speaking skilled resource in the world, did not have the capital to harness the power of this valuable resource, till recently. The Internet changed all that and allowed this vast human resource pool to be leveraged across geographic boundaries without any migration. As a result, the world was instantaneously able to tap into trained scientific and technical resource that was easily capable of meeting the global demands.

In the next 10 years, China is likely to catch up with the US in terms of government support for business innovation and India is likely to catch up in scientific and human capital. In addition to being the beacon for freedom and liberty, the US, where most of the world's inventions and business innovations have come from in the last 150 years, will continue to remain as a country that is the most creative, technologically advanced, and innovative. Besides providing leadership in business and commerce, it will also continue to be the altar of scientific knowledge and expertise, and the largest market for many decades to come.

Large Emerging Markets

It is an established fact that sooner or later those who have the propensity to consume would ultimately take hold of the resources. Examples include

⁶ Bannister, Judith. 2006 (May). "Manufacturing employment and compensation in China", Labor month in review, Monthly Labor Review Online.

agrarian reforms that let land ownership shift from influential Kulaks to the landless peasantries, or oil, which though found in abundance in the Middle East, is largely controlled by the powerful oil companies of the US and other developed countries.

As the consumption of global economic output shifts to the BRIC or E7 nations, so will wealth. One can already begin to see this, as China has become the largest market in the world of cell phones, televisions, appliances and many other consumer goods. Amazingly, the Chinese auto market, which was still relatively small in 2000, surpassed Germany to become the second largest auto market in terms of units in 2006, and in 2009 will surpass even the US to become the largest auto market in the world with a projected demand of 11 millions units!⁷ Suzuki, a small car maker discovered this long ago and chose India as the largest selling destination for its low end cars which are co-produced in partnership with the Government of India. Maruti Suzuki India Limited is Suzuki's largest and most valuable subsidiary and produces cars that serve price sensitive and low affordability markets in Eastern Europe, Africa, Central America, Angola, Ethiopia, Europe, Kenya, Morocco, Sri Lanka, Uganda, Chile, Guatemala, Costa Rica and El Salvador.⁸

Our discussion is not about proving economic prosperity of a particular nation or a group of nations, but to understand how such a phenomenon takes place, and how it can be exploited to the advantage of a nation, or by companies who then take advantage of the these countries where economic prosperity is certainly destined to arrive.

Hamish McRae⁹ in his commentary 'The World in 2025', observes that while the Western economies will still be the richest in the world, real economic power will have moved eastward. It is likely that the Chinese economy will surpass Japan to become second only to the US in the next five years, while India will be a larger economy than Germany by 2020 in nominal terms. In a manner similar to the Industrial Revolution, where UK had been the largest industrial power for more than a century, and eventually, gave way to a more resource and knowledge rich US, as the leader in the mid-1800s, in the present world scenario too, power will shift to resource and knowledge rich countries beyond the G7 to the G20. In the

⁷ USA Today, http://www.ustoday.com/money/autos/2009-06-14-chinacars_N. htm.

⁸ Maruti Suzuki website.

⁹ Hamish McRae is the Chief Economic Commentator of *The Independent*, and author of *The World in 2020: Power, Culture and Prosperity.* http://www.ebfonline.com/Archive/Default.aspx?IssueID=18.

future, the club of economically strong nations could extend far beyond the G20 as great hidden treasures are uncovered in many other nations., The US will continue to be the largest and most powerful economy in the world for many years to come since it has an unparalleled lead in resources, science and technology, and cutting-edge research. It also provides an environment where new technologies, products, and human knowledge can be harnessed from the global resource pool. Natural resource rich nations will also attain prosperity since they own the scarce resources whose demand will continually increase from a few consuming nations to the world's masses. One can already see that the demand for oil and natural gas has increased dramatically due to a rapid growth in demand from the BRIC nations in the past decade.

Companies can take advantage of these global shifts and invest in global resource pools to provide abundant manufacturing and skilled labor at significantly lower rates. They will also be positioned to capture value in these very same markets that provide these resources as economic prosperity comes to these nations and with it the demand for consumer and industrial goods.

Technology—A Major Equalizer

For long, technology was considered subservient to the political and economic game plan of major economic and knowledge powers. It suited countries to push or block the technological knowhow depending upon their sovereign interest. However, several globalization technologies have changed all that. We will discuss all of these in detail in Chapters 3 to 5, but it is worth noting here that the convergence of the computer and the Internet has leveled the playing field. With the easy availability of information on the Internet, children in Africa and other developing countries now have access to virtually the same knowledge storehouse as a professor at an Ivy League University in the US. In addition, technology now allows the harnessing of vast human resources in populous nations, all of whom can now participate in the global economy.

INNOVATION—THE KEY TO WINNING IN THE GLOBAL ECONOMY

There are several factors required to win in the global economy. However, the fundamental idea driving them is a change in mindset and innovation. We will explore in detail a measure called the Global Index in Chapter 6, which describes the key elements for a successful global operation. In addition, we will treat in detail specific strategies for structuring a global

company and processes required for success. However, we will summarize the winning formula here:

- **Change in mindset**—One must overcome the ego associated with historical supremacy or parochialism and accept that value can be derived from any and every quarter and the name of the game is to harness global knowledge, expertise and resources.
- Leveraging the global resource pools—While most of the world's discovered natural resources may be limited to a few countries, human knowledge and ingenuity is globally dispersed. Those who can leverage this effectively can tap a much larger resource pool and will not only win on their home turf, but also in emerging markets.
- **Connecting the dots**—There are nuggets lying everywhere. The keen eye needs to spot them and finally polish them into brilliant gems. Similarly, companies can find nuggets of global resources, scientific expertise and human talent, and need to connect them to produce valuable goods that can be delivered efficiently to consuming masses globally.
- Being prepared for the long haul—Think of a portfolio of cash cows versus investment areas and it is easy to see that the developed markets need to fund emerging market strategies on a continual basis. Companies need to have the ability to nurture emerging markets for as long as 10 to 20 years before they begin to reach their full potential.
- Innovation across all dimensions—Companies need to continually re-examine products, processes, how a company operates, partnering, localization and leadership; in plain and simple words, how a business is managed so they can stay at the forefront of business leadership in all dimensions.

The challenges associated with succeeding globally are enormous. One has to venture into disparate lands where, often, simple communication in a common language is difficult, let alone knowing the intricacies of how those societies work, and what it takes to succeed in them. Luckily, with strategic, systemic thinking and technology tools that are available to us, we have a good shot at hitting this fast moving target.

The rest of this book is devoted to detailing how to actualize these strategies, i.e., defining the right operating tactics, balancing the right level of sourcing with strategic partnerships, appearing genuinely local in operations and the products offered, and finally how technologies can be leveraged to correctly connect productive facilities, processes and personnel in order to create a globally linked and optimized organization that can effectively tap into all the market opportunities worldwide.

SUMMARY OF KEY THEMES

We have presented several trends and megashifts in this chapter which are summarized below:

- 1. The current global economic crisis is forcing business leaders to look for predictive clues and frameworks to win in global economy. The current unprecedented challenges require us to look at the emerging economic landscape and major demographic shifts where nations such as China, India, Russia, Indonesia, Brazil, Argentina, and Mexico will be both large producers and consumers.
- 2. Megatrends, such as rapidly dropping costs of key technologies, increasingly interconnected world, ability to easily harness global resource pools, demand of improved lifestyle, disruptive technologies and pervasive knowledge are impacting the way the global markets and economy of the future will be redefined.
- 3. Given these unfolding scenarios, the basis of competition will shift from cost to value to expertise or competence, and finally to global capability which we have defined as Global Index. Having a comprehensive global sourcing and delivery capability will be essential in attaining a sustainable winning competitive position.
- 4. Having a high Global Index implies the company is astute in weaving together a Global Value Web where they can take advantage of the capabilities of their suppliers and partners, and at the same time participate in key emerging and growth markets.
- 5. The economic model of today extends beyond the traditional three components of plant, capital and labor and includes technology and legislation. Companies need to examine these additional factors in detail and, where required, need to ensure that legislative barriers do not stand in their way of growth.
- 6. Finally, succeeding in the global economic scenario requires a change in mindset and companies have to think innovatively across all dimensions, particularly in terms of leveraging the global resource pools for knowledge and expertise and not just for low cost labor.

ΤWΟ

Global Shifts

Go west, young man...

Aaron Burr, third Vice President of the USA, 1801

Go east, young man...

Anonymous, circa 2009

DURING MOST PART OF the 20th century, economic activity was mainly centered in what are now called the G7 nations. While this group of nations accounted for less than 20 per cent of the world population, they contributed almost 80 per cent to the world's organized global economic output.

However, with the spread of knowledge, technology and available capital, many countries are now dynamically involved in the global economic activity and world trade. As a result, some fundamental demographic changes are occurring, that will shape the future of economic activity. A few events that triggered the global change we are now observing are:

- Visit by Chinese premier Deng Xiaoping to the USA in 1979 and the opening of freer trade relations between US and China.
- Invention of the personal computer in 1980.
- Rise of the Internet in 1994 in a user-friendly format that was global in nature.
- Drop in the prices of cell phones; by 2005 they were affordable to anyone.

These events allowed the harnessing of both the sleeping dragon and the sleeping elephant, i.e., China and India. With vast resources of human capital, they ushered in a new era of lower cost labor, both blue collar and white collar, which could be harnessed by the entire world for manufacturing and knowledge related work. Their activities were not limited to simply providing lower cost goods and services to the US or the G7. This was more akin to 'letting the jinni out of the lamp,' and these resource powerhouses extended their reach beyond the G7 to the entire world. Today, Chinese goods are sold in almost every country in the world in significant amounts, and services of Indian knowledge workers are sought the world over, from Finland to the far reaches of Africa.

It is a fact little known that China and India were the dominant economies of the world from prehistoric times until 1800¹, when on a PPP² adjusted basis they collectively accounted for 50 per cent of the world's economy for that entire period from 1 to 1800 AD. It was only during the industrial revolution, centered mostly in the G7, did these few nations rise and invent incredible new technologies and products which improved lives of the world population in all spheres including health, nutrition, education, business, transportation and communications.

There are many shifts occurring globally, but we will focus on the major shifts that have implications on global economic output. We will discuss each of the following shifts in greater detail:

- Shifting production and population bases
- Shifting economic output and markets
- End of the digital divide
- Opportunity creation on an unprecedented scale
- Catch me if you can

SHIFTING PRODUCTION AND POPULATION BASES

At the heart of these changing demographics are a few fundamental shifts. These are:

- Shifts in the production base due to productive population resources globally, and
- Spread of global consumption previously focused in the G7 to the G20 and beyond.

Because economic activity was located close to final consumption prior to 2000, other than basic agriculture, the G7 countries did most of

¹ http://en.wikipedia.org/wiki/List_of_regions_by_past_GDP_(PPP) showing economic output by region from prehistoric times till today.

² PPP is Purchase Price Parity index that is now routinely used by the World Bank and all economic planners to get a more comparative size of the economy size. Prices of similar goods in the economy are vastly different from those in the other.

	Population 2050	1,807,878,574	1,424,161,948	420,080,587	313,020,847	295,224,598	279,955,405	278,283,137	264,262,405	260,692,493	189,310,849	171,964,187	147,907,650	128,007,514	127,563,256	109,187,353	107,772,641	93,673,826	88,227,761	86,473,786	81,933,479	81,490,039	73,607,121	71,278,172
	Country	India	China	NSA	Indonesia	Pakistan	Bangladesh	Ethiopia	Nigeria	Brazil	Congo, DR	Philippines	Mexico	Uganda	Egypt	Russia	Vietnam	Japan	Sudan	Turkey	Afghanistan	Iran	Germany	Yemen
	Rank	. 	2	ŝ	4	2	9	~	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23
-1950-2050	Population 2010	1,347,563,498	1,184,090,490	309,162,581	242,968,342	201,103,330	179,659,223	159,765,367	152,217,341	139,390,205	126,804,433	112,468,855	99,900,177	88,013,491	87,814,053	84,440,272	82,282,988	73,322,470	70,916,439	67,037,517	66,303,290	64,768,389	61,284,806	58,090,681
lation by country-	Country	China	India	NSA	Indonesia	Brazil	Pakistan	Bangladesh	Nigeria	Russia	Japan	Mexico	Philippines	Ethiopia	Vietnam	Egypt	Germany	Turkey	Congo, DR	Iran	Thailand	France	UK	Italy
Popu	Rank	1	2	3	4	5	9	~	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Population 1950	562,579,779	369,880,000	152,271,000	101,936,816	83,805,000	82,978,392	68,374,572	53,443,075	50,127,000	47,105,000	45,645,964	42,517,690	39,448,232	36,774,854	31,796,939	28,485,180	28,062,963	25,348,144	24,824,000	21,197,691	21,131,264	21,121,639	20,845,771
	Country	China	India	NSA	Russia	Japan	Indonesia	Germany	Brazil	UK	Italy	Bangladesh	France	Pakistan	Ukraine	Nigeria	Mexico	Spain	Vietnam	Poland	Egypt	Philippines	Turkey	Korea, South
	Rank	-	2	ŝ	4	S	9	~	8	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23

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 Table 2.1:
 Shifting populations

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			Popul	lation by country-	-1950-2050			
Rank	Country	Population 1950	Rank	Country	Population 2010	Rank	Country	Population 2050
24	Ethiopia	20,174,562	24	South Africa	49,109,107	24	France	69,768,223
25	Thailand	20,041,628	25	Korea, South	48,636,068	25	Thailand	69,268,817
26	Burma	19,487,657	26	Burma	48,510,799	26	Tanzania	66,843,312
27	Argentina	17,150,336	27	Colombia	46,270,565	27	Kenya	65,175,864
28	Iran	16,357,000	28	Ukraine	45,415,596	28	Colombia	64,977,344
29	Romania	16,311,000	29	Sudan	41,980,182	29	UK	63,977,435
30	Canada	14,011,422	30	Tanzania	41,892,895	30	Madagascar	56,513,827
	TOTAL	2,543,074,269		TOTAL	6,694,326,464		TOTAL	9,214,490,975
	G7 Share	18%		G7 Share	10.91%		G7 Share	8.83%
Source:	U.S. Bureau of t	he Census, Internation	nal Data B	ase, 18 June 2008.				

the production and consumption of goods and services. Moreover, trade and visa barriers prevented inflow of goods and human capital from other countries into the G7. While G7 accounted for 18 per cent of the world's population in 1950, they accounted for over 80 per cent of the economic activity. By 2050, the G7 countries are likely to account for only nine per cent of the global population, a relative drop of over 50 per cent. Production and consumption are likely to decline in similar proportions. Table 2.1 details the population shifts for the 30 most populous nations from 1950 to projections into 2050.

SHIFTING MARKETS AND ECONOMIC OUTPUT

When we look at the projected GDP leaders in 2050, we see a similar shift, and the rise of the BRIC nations that will surpass the G7 in terms of total economic output around 2040. This is based on nominal dollar currency. However, based on PPP adjustments the BRIC nations will surpass G7 activity by 2020, with China perhaps being the largest in PPP terms by 2015.

Rank	Country	GDP (PPP) \$B
_	World	69,490,000
_	European Union	14,820,000
1	United States	14,290,000
2	People's Republic of China	7,800,000 ³
3	Japan	4,348,000
4	India	3,267,000
5	Germany	2,863,000
6	United Kingdom	2,231,000
7	Russia	2,225,000
8	France	2,097,000
9	Brazil	1,990,000
10	Italy	1,821,000

Table 2.2: PPP adjusted GDP of 10 largest nations

Source: CIA World Factbook 2008.

Even in nominal terms, China is expected to surpass USA as the largest economy by 2041. Table 2.3 shows the emerging new world order where the BRIC nations will soon constitute four of the six largest economies and will be the largest consumers. This provides unbelievable opportunities for companies of all sizes.

³ GDP of People's Republic of China excludes the two special administrative regions of Hong Kong and Macau.

2050							
Rank	Country	2000	2010	2020	2030	2040	2050
1	China	1,078	2,998	7,070	14,312	26,439	44,453
2	USA	9,825	13,271	16,415	20,833	27,229	35,165
3	India	469	929	2,104	4,935	12,367	27,803
4	Japan	4,176	4,601	5,221	5,810	6,039	6,673
5	Russia	391	847	1,741	2,980	4,467	5,870
6	Brazil	762	668	1,333	2,189	3,740	6,074
7	UK	1,437	1,876	2,285	2,649	3,201	3,782
8	Germany	1,875	2,212	2,524	2,697	3,147	3,603
9	France	1,311	1,622	1,930	2,267	2,668	3,148
10	Italy	1,078	1,337	1,553	1,671	1,788	2,061

Table 2.3: GDP of the 10 largest nations in nominal terms (\$ billions)

Source: Goldman Sachs 2010 Forecast, http://www2.goldmansachs.com/ideas/global-economic-outlook/forecast.print.html.

Other parts of the world will also be growing as economic activity spreads throughout the world. However, share of Gross World Product of the Rest of the World, which consists of nations outside the G7, Europe, BRIC and the oil rich nations will decline from the current 30 per cent of GWP to 25 per cent by 2050.⁴ Another group of nations beginning to grow rapidly right behind the BRIC are the N-11 or the Next 11 nations. These are Bangladesh, Egypt, Indonesia, Iran, Korea, Mexico, Nigeria, Pakistan, Philippines, Turkey and Vietnam, which account for just seven per cent of the global GWP today and are projected to account for 15 per cent of the GWP by 2050. Beyond this, analysts have started looking at the Next 100, i.e. countries which could grow to be reasonable sized markets beyond 2020. Today, most of these countries are largely ignored and do not have the resources to build their economies. But, as time progresses, cost will no doubt increase in the current developing economies, and as costs of technology further decline, these countries will benefit by bypassing the current technology investments and will provide attractive destinations for resource and market leverage.

The BRIC nations are now formally recognized as being rich in both human capital and natural resources, as well as having the advantage of large population bases that will drive the global consumption of economic activity. While the G7 summits have taken place for some years, the BRIC nations also heralded their first summit in June 2009. This marks a watershed event, since the world is now increasingly becoming multi-polar. The BRIC nations are also pushing for freer trade and a global reserve currency that is not dependent on the US dollar.

⁴ Analysis based on data from various sources such as Goldman Sachs, World Bank and IMF.

Why is this Shift Occurring?

While the West has long known about the tremendous imbalance, they have protected their economies by putting trade and tariff and visa barriers. This is because they enjoyed a standard of living that is dramatically different from the rest of the world. While the per capita income in the G7 is upwards of \$30,000/year, there is a vast population of the world that even today lives on less than one dollar a day! Associated with this low standard of living are lower wages in these countries, which account for a vast proportion of the earth's population. India and China alone account for 40 per cent of the world's population or almost four times the entire population of the G7. The wage differential is even more dramatic. At the start of 2009, the wages for manufacturing jobs in India and China, which have risen dramatically in the past 20 years, are still less than five dollars a day, compared to \$250-500/day in the G7 countries, a dramatic 50 to 100X factor! Similarly, for knowledge workers, the costs in developed countries are typically five to ten fold compared to costs in developing countries, particularly in India, which has large pools of trained workers.

India and China have the largest and the best-trained talent pool among the developing countries along with reasonably good infrastructure to attract foreign capital for sourcing. These countries also provide large emerging markets for the very companies that seek out the global sourcing in these nations at these dramatically lower costs. However, India and China are not the only countries because of which this imbalance is occurring. Several other countries are now at the heart of this global production base. These include Brazil, Russia, Philippines, Mexico, Indonesia, Argentina and countries in Eastern Europe. In addition, there are some relatively developed countries that also provide valuable manufacturing bases at much lower costs like the Asian tigers, i.e., Taiwan, South Korea, Singapore, Thailand and Malaysia.

While the population imbalance between the East and the West always existed, literacy rates in the rest of world were very low compared to the West. Many of these countries invested aggressively in education over the years, and now have large pools of highly trained professionals. However, this alone was not reason enough for the shift to occur. While the Asian tigers attracted foreign direct investment (FDI) aggressively since the 1970s, India and China funded their investment from systematic savings over a long period of time. The Internet has been another major catalyst in the change. It harnessed low cost broadband technologies and permitted global communications at costs less than 1/100th of what was prior to 1994. After the invention of personal computer, the Internet was a significant development, which allowed the production of work requiring knowledge in a location independent manner. This further allowed human capital to flow over the wires and eliminated the need for visas that were required for individuals to move across political boundaries to work in local economies. We will treat this subject in more detail in the Chapter 3: Technologies for the Global Age.

THE END OF THE KNOWLEDGE AND DIGITAL DIVIDE

After World War II, most of the scientific and technical knowledge existed in only a few countries that included the US, Russia, Western Europe and Japan. However, none of these had the knowhow that the US commanded, and which it was able to further consolidate, since it was the only country among these that emerged unscathed after the war. Individuals from around the world sought higher education in the US, or came to it to learn from its companies and industries. Initially, the knowledge only percolated to the G7. Scientific, technical and engineering knowhow in countries other than these was relatively low; whatever existed were the remnants of colonization. Besides, the general literacy rates outside these few countries, barring a few exceptions, were also relatively low.

Countries outside the G7 began to set up education systems with the meager resources they had at their disposal. A few countries including India and China succeeded in setting up strong systems. However, the effects of knowledge increase cannot be felt for a generation, and it was not until 1980s that the many of these countries had enough trained resources that could not only serve the requirements of their nation, but also be available to the global pool. Today, with increasing emphasis on education all over the world, scientific and technical knowledge is much more globally dispersed. In addition, students are able to get advanced degrees in the G7 nations and take the knowledge back to their home countries to help build their economies. Furthermore, companies hungry to expand internationally have also transferred the knowledge of products, services, businesses and marketing to their talent pools around the world. Today, both India and China churn out more than five million college graduates annually and individually, almost twice the number in the US. In addition, the number of graduates in engineering, sciences, technical degrees and medicine makes these countries boast the largest number of technically trained resources emerging from within the boundaries, a fact that tilts the balance even more in their favour.

The knowledge gap is quickly shrinking. This by no means indicates that the East has acquired all the scientific and technical knowledge of the West, but the unfathomable gap that existed in the 1950s is reducing

constantly. By 2030, many countries will come to a point where they will have the capability to do almost anything.

Just as there was a gap in literacy and scientific knowledge, a gap in another knowledge lever, which is the access to free information in a connected world due to the Internet, began to appear in the 1990s. Initially, access to the Internet was limited, since Personal Computers or PCs were still around \$3000 each and subscription to the Internet was relatively expensive. Since the G7 countries could afford this expensive technology, there was rapid acceptance of the technology and the people of these countries enjoyed the vast world of free information and use of the technology for education and research. This further accelerated the development of their knowledge. With virtually zero penetration outside the G7, it gave rise to the 'Digital Divide' which many analysts thought would further increase the knowledge of these nations, as compared to the rest of the world. However, the world, in a sense, reached an inflection point around 2000 when the steep acceleration in the price performance of the technologies and a reduction in the cost of PCs and the Internet access propelled a rapid growth of Internet connectivity around the world.

While there is still a digital divide between the G7 and the rest of the world, this gap will essentially be gone by 2020. Today, the G7 have Internet penetration of approximately 75 per cent compared to 20 per cent or less in the developing nations. While India and China collectively today have only around 300 million Internet users, they together alone will add another billion users by 2020, and each will have far more Internet users than the combined population of all the G7 nations. Cell phone penetration will be much faster with India and China together having more than two billion users, or almost half of the world's cell phone users by 2015. Table 2.4 shows the current Internet penetration around the world.

	Population in	Internet use		
Region	2008 (M)	2000	2008	Penetration
Africa	975	5	54	6%
Asia	3,781	114	657	17%
Europe	804	105	393	49%
Middle East	197	3	46	23%
North America	338	108	251	74%
Latin America	581	18	174	30%
Oceania	34	8	21	60%
World Total	6,710	361	1,596	24%

 Table 2.4:
 World population and Internet usage

Source: US Census Bureau, Nielsen Online and International Telecommunications Union.

With similar developments occurring in other nations, we now have the ability to harness the potential of the entire human population, rather than only a fraction, close to 10 per cent, within the G7. We have not moved far beyond the 10 per cent world, and yet, can now think of 100 per cent of the world. This, almost five to seven fold increase in the world's population, for both productive and consumptive purposes, will dramatically change the economic landscape of the world. This changing landscape provides unprecedented opportunities for companies in the know, i.e., companies that offer valuable goods and services for vast populations and who recognize these trends as great opportunities and are willing to take proactive steps to tap this opportunity. Companies that provide affordable FMCG (fast moving consumer goods) and food products can emerge as much larger winners, followed by those in apparel and durable goods industries.

Mobile Telephony

Technology adoption rates of the mobile telephone have eclipsed even the rapid adoption of the Internet. Figure 2.1 shows the mobile telephony penetration, which has now reached three billion, almost 50 per cent of the world's population, and twice the Internet usage of 1.5 billion users.

FIGURE 2.1





Electronic technologies have dramatically reduced the cost of doing everything and have made possible new business models that were economically impractical in the hard-wired physical world.

With massive investments in schools, colleges and universities around the world and a sharp decline in the price of electronics and network access due to computer, fiber and wireless technologies, knowledge, communications and interconnectivity are now universal. Together, these essentially mark an end of the knowledge and digital divide in the world. With access to education and global interconnectivity being close at hand almost everyone can participate in global production regardless of where they are. This will no doubt open up opportunities to many more individuals and nations, by perhaps a ten or twenty fold factor compared to just a decade ago.

Opportunity Creation at an Unprecedented Scale

This global imbalance of markets, populations, wage differentials and productive resources creates incredible opportunities for companies and countries that recognize the impending and inevitable change. Those that act quickly can be the leaders of tomorrow. A whole new world of opportunities awaits the gold seekers. These are:

- Leveraging of low cost human capital for both manufacturing and knowledge work globally.
- Ability to work round-the-clock under follow-the-sun model, allowing non-stop production, shrinking of cycle times and 24-hour customer service.
- Opening of vast new markets to sell goods which will dwarf the G7 within the next decade.
- Learning from around the world, which will sharpen creativity across all dimensions of cost efficiencies, customer alignment, innovation in product and process and leadership.

Emerging Markets will Surpass those of Developed Economies within a Decade

Traditionally, the process of globalization flowed from mature markets to emerging markets. The developed countries researched, designed and manufactured all the products that were later exported, often towards the end of the technology life cycle, to the emerging markets. Any plant or machinery that was transferred to developing nations was usually at the end of its useful life, and at best, could produce products that were obsolete in the developed markets. This provided protection for the developed markets from export of goods from the developing countries. The developing countries could not change their fate since they often did not have the capital to buy the latest machinery, and even if they could, the technology transfer cost was very high. However, as the markets in the developing countries became larger, the governments in these countries also responded by protecting their local industry and not allowing free access to their markets, just as their companies did not have free access to all the technologies and machine tools they sought from the West. However, all these barriers have disappeared in the past 10 years as companies from developed nations are hungry for new markets and are willing to bring the latest technologies into emerging markets. Today, all new products are managed through a synchronized global launch where the major products and services are essentially available everywhere at the same time. At the start of the PC revolution, machines offered in developing nations were often four to five years behind those offered in the US, and cost twice as much! Today, PCs with the same capability are available on the same date and close to the same price globally. So much so, that even Hollywood does a global launch of its movies often dubbed in local languages. Today, factories in developing countries are humming with the latest technologies and chugging out world class goods, often produced with much lower labor cost, and shipped to global destinations for consumption.

A simple example is that of the aerated soft drink industry that has practically been captured by the two American giants, Coca Cola and Pepsi. It was not that the developing countries did not have domestic alternatives, many of them with much stronger local brands that were widely preferred by the consumers. However, these MNC brands came with deep pockets and their powerful brand appeal led to the decimation of the local brands. With aggressive and extensive marketing, they effectively achieved a foothold in the distribution system. They have been very successful since they've been able to grab shelf space, acquire bottling capacity, get local celebrities to endorse their products and then push their products through aggressive pricing and saturation advertising. However, some of these approaches are being challenged. The previous model of a singular product or brand image globally may no longer be valid in these times. Not everyone wants to drink the same Coke with its same acid and sugar content and taste that the Americans enjoy. Product appeal and tastes vary by country, region, geography and culture. Instead, a mass customization model might better suit the requirements of local brands and local tastes rather than a mass-produced model with limited variety. Companies that can craft a strategy to manage localization while promoting the brand image in their ubiquitous global brand, will be successful over long periods of time.

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38 Winning in the Global Economy

The new global equalization led by the BRIC countries is showing the reverse trend, where companies operating in emerging markets are expanding into developed markets. This trend is being spearheaded by a number of BRIC companies acquiring developed market companies and playing on a global scale, aided by the strong consumption base of developing countries. Figure 2.2 below shows the rise of the BRIC nations within the Global 500. For the first time since the advent of the industrial age, the emerging economies now account for over half of the GWP on a PPP adjusted basis!⁵

FIGURE 2.2



Number of companies in Global 500

Source: Financial Times and Fortune.

The growth of major companies in countries other than the current G7, is evidence of the fact that economic wealth is getting more evenly distributed around the world, and that innovation is occurring all over the world. If the current trend continues, one-third of all companies in the Global 500 will be, within a decade, from outside the current developed economies of the G7 and Europe. These projections are based on constant investment patterns, favourable political scenarios and assumed growth rates over a period of time. But during the last five years, the BRIC nations have played an important role in the world economy, accounting for a third of the total growth.

⁵ The Economist, 21 January 2006.

Market

It should be noted that in many of the developing countries, very large companies are often owned by the government, since they are the only ones with the ability to make the large scale investments in core infrastructure sectors such as oil exploration and refining, transportation including cars, trucks, railroads and airlines, power generation, telecommunications and education. *Clearly, our list of companies does not include all such stateowned companies, because their inclusion will lead to concluding a uniform distribution of large companies around the world.*

Table 2.5 shows the major corporations from the BRIC nations that are part of the Global 500.

2007	2006	Company	Country	value \$B
6	10	Gazprom	Russia	245.91
9	N/A	Industrial and Commercial Bank of China	China	224.79
23	N/A	Bank of China	China	165.51
35	N/A	China Construction Bank	China	128.53
41	N/A	China Life Insurance	China	116.28
50	48	Petrobras	Brazil	105.88
53	N/A	Sinopec	China	104.01
68	N/A	Rosneft	Russia	88.5
74	117	Vale do Rio Doce	Brazil	86.14
95	76	Lukoil	Russia	73.49
103	232	Sberbank of Russia	Russia	70.48
131	234	Unified Energy System	Russia	58.1
152	94	Surgutneftegas	Russia	51.33
166	N/A	Bank of Communications	China	47.07
182	284	Reliance Industries	India	43.87
187	158	Oil & Natural Gas	India	43.21
196	N/A	Ping An Insurance	China	41.67
205	205	Bradesco	Brazil	40.85
208	222	Banco Itau	Brazil	39.72
239	376	MMC Norilsk Nickel	Russia	35.36
244	266	Ambev	Brazil	34.73
257	443	Bharti Airtel	India	33.29
265	N/A	China Merchants Bank	China	32.44
313	286	National Thermal Power	India	28.41
319	367	Tata Consultancy Services	India	27.72
331	362	Banco Brasil	Brazil	26.9
345	414	Infosys Technologies	India	25.83
469	N/A	Reliance Communications	India	19.76
475	N/A	Mobile Telesystems	Russia	19.61
487	N/A	Itausa	Brazil	19.3
500	430	Wipro	India	18.69

 Table 2.5:
 Companies in BRIC nations in the Global 500⁶

Source: Financial Times Magazine 30 June/1 July 2007.

⁶ Ranking by market capitalization.

Further, most companies from the developing nations that are entering the ranks of large companies today, are concentrated in a few industries such as energy, telecom and banking. Over time, this will spread into other industries that include manufacturing, retailing, pharmaceuticals and food.

While this is a meteoric rise, we should point out that other than a few exceptions, almost all the entrants in the Global 500 are large local companies and not global companies in any sense of the term. They simply happen to be the within the 500 largest companies in the world. Companies from the G7 that are perched at the top of this list indeed have a good degree of global presence; in fact, many of them can boast a comprehensive global footprint of revenues, resources, production and the like. These include the well-known beverage, consumer goods, personal products, automobile, IT, electronics, hospitality, and pharmaceutical companies like Coca Cola, Seagram, Kraft, Nestle, Toyota, Mercedes, HP, Google, Microsoft, Sony, Samsung, Hilton and Glaxo.

Why is this new economic reality occurring?

As explained earlier, these phenomenal changes are due to a rapid growth of the middle class in populous developing countries including the BRIC and other nations in Asia. Their ranks are swelling by more than 80 million every year in these rapidly developing countries, which in effect, are adding the consumption base of the US in these countries every two years! Moreover, companies in these countries are also rapidly acquiring knowledge and a unique competitive position to challenge the larger global companies.

When IBM considered the Chinese computer maker Lenovo as the new suitor of its \$18 billion PC business in 2005, it only supported the belief of Lenovo CEO, Bill Amelio. While it may have taken 25 years for the PC to get to its billionth consumer, the second-billionth would take only seven years! Lenovo was already an IBM contract manufacturer for PCs and a leading player in Chinese market, and it was obvious that by exiting the PC business and simultaneously retaining a strategic interest and relationship in Lenovo, IBM was addressing the new economic realities it was facing—a shifting market with a different price point for success, both of which IBM could not address profitably within its own corporate setup. IBM's structure was much more geared to supporting Global 2000 companies that could afford a higher price point associated with a comprehensive global support that these companies demanded. The newer market had thousands of SMB and retail customers, which required a much lower cost point and a different distribution mechanism, in order to support the market profitably.

Companies from emerging markets such as the multi-division conglomerate, the Tatas or Embraer for aircrafts, or Haier for appliances should not be taken lightly. The Tata Group has already made significant inroads in the IT services business globally, and is the largest IT services provider after the Global Big 5. With the acquisition of the Jaguar and the Land Rover from the ailing Ford, Tata Motors was able to score a major coup and complete its fleet of passenger cars ranging from world's lowest costing Nano at a mere \$2000, to luxury performance cars such as the Jaguar costing \$50,000 and more. Initially, the concept of Nano as a car was ridiculed in the West wherein one could seat four if no one breathed! However, after witnessing the recent success of Nano on the Indian roads, many global manufacturers have been forced to re-examine their strategies for developing markets and for the low-end cars in mature markets. And, as if this was not enough, in an area where one would never consider them to be a competitor, Tata with its vast telecom and IT capability has started offering tele-presence solutions around the world including US, Europe and Asia Pacific, something that is causing companies such as AT&T, Verizon, Vodafone and Telstra a major heartache, since they are being attacked on their home turf and in their core products. Strategically, Tata has an advantage over the companies in tele-presence solutions since these require expertise in both IT and telecom, and a global footprint, all of which Tata has, but none of the larger telecom majors have. Primarily based in India, Tata has a lower cost structure, and a five-fold labor cost advantage in the development and maintenance of these technologies, something that will plague its much larger counterparts for some time to come.

Interestingly, most of the leading companies from the BRIC nations have a far stronger grip on the local markets and are more resilient in meeting the challenges and volatility associated with tough economic times. These companies have grown in markets with low disposable incomes and where growth has been volatile and unpredictable. Today, companies in the BRIC and developing economies have a further advantage since they can rapidly raise capital in their home markets, all due to a growing base of investors who are eager to invest in companies that have a track record of delivering outstanding returns to their investor over long periods of time. Such firms from the BRIC countries are able to bring out simpler and lower cost products such as Tata's Nano, or Acer's PC. Incumbents from these economies who were used to doing business in very frugal and volatile markets are able to tap this knowledge and ramp up quickly in the developed markets, where it is much easier to do business, since these

countries have developed infrastructures, highly trained workforce and large consumer and industrial markets. These battle-hardened companies have a much easier time when entering developed markets, compared to large MNCs from developed countries that enter developing markets. One always wonders why very strong companies such as Starbucks, AT&T, Verizon and the G7 oil and retail majors do not enter the large markets of Asia! The challenge these companies now face is how to enter markets where the yields will be much lower and the investments much higher compared to their existing markets. Perhaps, it was their initial conservatism or risk averseness that prevented them from investing and today the cost of entering these markets and any acquisitions therein is prohibitively expensive.

There is little wonder then that companies like Wipro, Tatas, Petrobras and many others that have been making headlines recently, are far more poised for success than the established counterparts from developed countries. These companies have a strong base in their home markets, which they can defend against any international player, and because of their cost positions, mostly based in lower cost developing economies, they are better poised to tap both the developed and the developing markets. The main challenge in some cases is access to the most lucrative customers, and the ability to develop and bring the latest technologies into the marketplace, something that the larger MNCs have a stranglehold over.

SUMMARY OF KEY THEMES

- 1. Major shifts are resulting in a shift of the production and consumption bases in the world. This has largely driven the imbalance created by large populous nations whose human capital is now aggressively being harnessed for value addition in the global economy. This is the reason behind the Global Shift. Shifts in the production base are due to shifts in productive population bases globally, and also due to the spread of global consumption previously focused on the G7 nations, and now on G20 and beyond.
- 2. Emerging markets, mostly based in populous nations, are growing very rapidly and will surpass the developed markets even in nominal terms in the near future.
- 3. With massive investments in colleges and universities around the world, technical, scientific, engineering and medical knowledge is becoming pervasive. In addition, with the rapid drop in the price of computers, Internet access and mobile telephony,

communications and access to the globally interconnected world for knowledge and production is now within everyone's reach. With this comes the end of the knowledge and digital divide between the traditional 'haves' and the 'have nots.'

- 4. All these shifts are creating opportunities at an unprecedented scale, the likes of which the world has never seen before. No longer are the mass markets limited to the large middle classes of the G7 which account for only 10 per cent of the world's population, but they now extend to 50 per cent or more of the world's population. Companies and countries that recognize and accept this inevitable change are likely to take actions that position them to be successful runners in this global race. Those that resist or choose not to participate are likely to be bystanders forever.
- 5. However, to be successful in the global landscape, companies must understand differing consumer tastes and the need to ensure proper localization while still leveraging their global brand.
- 6. With localization, companies need to think of mass customization rather than mass production models. As they extend their operations in new markets, they will very likely find innovations and clues that will help them be successful in other markets.

THREE

Emergent Global Models

Change is the law of life. And those who look only to the past or present are certain to miss the future...

John F. Kennedy

Emergence of a Global Innovation Model

Despite uncertainties prevailing in the global economy, the capabilities enabled technology, which is essentially rendering the world to be borderless, will continue to accelerate. While things are slow in the global economy, companies can take advantage of the time to examine their positioning and ensure that they are moving in the right direction and exploiting technologies to their fullest potential for their business.

Technologies, in particular Information Technology, Electronics and Communications (ITEC), are enabling a digital economy, which is vastly different from the physical economy. Table 3.1 shows the differences between these two economies. All businesses will have high e-commerce and m-commerce components which are driven through a multitude of globally connected computers and systems that automate many business processes, allowing a seamless handling of customer requests, business provisioning and production of goods.

In the digital economy, rapid convergence of industries is occurring since electronic integration of value across industries is possible. It is also possible to eliminate intermediaries who historically brought together the buyer and seller, since the seller can easily reach the buyer directly.

Table 3.1 shows the main differences between the 'Age of Machines' which was mainly mechanical and the 'Age of Smart Machines' where the machines have electronics embedded in them and can perform many tasks automatically without further human intervention after their manufacturing and commissioning.

Activity	Age of Machines 1800–2000	Age of Smart Machines 2000 onwards		
Business approach	Sell what you produce	Create imaginative value		
Product	Physical	High information content		
Workspace	Offices and factories	Electronic co-location		
Channels	Company's own	Many with good customer access		
Volumes	Small	Very large		
Production	Mass production	Mass customization		
Value chains	Company controlled	Global value webs		
Infrastructure	Superhighways, trains	Internet, telecom		
Communications	Paper	Electronic		
Wealth creation	Machines	Information and electronics		

Table 3.1: Transformation from the industrial to digital economy

With technology moving at a lightning speed, and the rate of change accelerating, one would scarcely venture to guess what comes next. While this is not a book on futuristic technologies where one could envision all the Star Trek technologies, we certainly know that the next era will be the 'Age of Intelligent Machines'—an era whose dawn can already be seen. Computer programs will be able to replicate human intelligence in many areas and smart robots will take care of many complex tasks such as being a soldier in a battlefield. While this is still far fetched, human life could begin to become complacent as shown in Disney's futuristic movie *Wall-e*. We hope not!

Business leaders who have set their sights on the digital future will be able to mould it to their advantage. Let us take a look at how the businesses are being transformed.

The future of globalization will be driven by the creation of totally new markets for products that are conceived at a global scale but have enough localization in terms of its production, features and labor. Leading corporations will need to have multi-country footprints that are optimized based on the right place for the right activity. They also have to think of positioning business capabilities in the context of a non-static world. Just as many of the world's IT workers have shifted back to India from locations in the US and elsewhere, what works well today in one particular country, may eventually have to be shifted to another country, as the business dynamics and economics change around the world.

While this is our broad vision, the current world is showing signs of moving in this direction. In the first 50 years or so of the industrial age, companies were competing on the basis of local resources, local markets and limited assets that were at their disposal.

The Figure 3.1 shows, in summary, the transition of business ecosystems in the last 200 years and the imperatives for success for each of the three major business periods. These major periods are:

- Traditional Industrial Model Optimization from 1800s to 1980s
- Industry Ecosystem Optimization from 1980s to around 2000
- Leveraging of Digital Technologies from 2000 onwards

All of these leading to the emergence of a Global Model, the dawn of which can already be seen.

While the industrial model grew through simple expansions, it was not until General Motors (GM) and others heralded the 'division and specialization of labor' and optimized businesses along the lines of functional specialization. Over a period of 50 to 70 years, companies strengthened the industrial model of producing everything themselves such as tires, glass, seats and steel for the very cars that they themselves designed, assembled and sold. Obviously, this model came under severe pressure from focused competitors who could easily defeat a fully integrated company by eating into specific production areas, like metal production, tire production or selling.

Better roads, telecom and the initial computer era made it possible for companies to enter the next period of industrialization known as the Industry Ecosystem Optimization where they began optimizing their thinking across process lines. Companies reengineered their businesses that included the extended enterprise of their suppliers and retailers and tied these extended corporations through electronic data exchange. However, small players hungry for business, challenged these large corporate behemoths such as USX, GM, Sears, and P&G on their very own turf, by offering lower cost alternatives that they were able to assemble due to declining cost of technology and manufacturing. These fast moving competitors who leveraged global capabilities had a lower cost overall and were able to effectively compete with larger companies who could not turn their battleships around quickly enough, since their business models and investments required promoting the status quo for long periods of time to recover all their investments.

From the early 1990s, the Internet age, ushered in the digital age which allowed extended informating of a business, greater digitization of products and services, and made companies far more efficient in their operations even if they were extremely complex and stretched, globally. However, a few companies have truly embraced the global model and continue to operate in geographies and with business models that resemble their operations in the 1990s.

FIGURE 3.1

Model	Value Chain Approach	Key Attributes
True Global Model (2000–)		 Dynamic value assembly with multiple providers having capabilities beyond the specific industry ecosystem Value mosaic of multiple value propositions Globally optimized Localization Distance and time compression Digitally connected Highly digital content
Extended Enterprise Integration (1980– 2000)	●S→S→Co.→R→R>	 Disaggregated and reaggregated across focused industry ecosystem partners Optimization across value chain of partners that doesn't change often
Industrial Model (1800– 1980)	S = Supplier R = Retailer D = Dealer VAR = Value added retailer VAD = Value added dealer	 Entire value chain within company Static and inflexible Resource base limited to what the company has Cost optimized

Stages of industry and value evolution

The Global Age is fundamentally different which allows multi-country or even completely global leverage of resources and markets. This creates a potentially win-win situation for the entire ecosystem of participants that jointly collaborate to put together the winning value proposition for the customer. We will treat these models and value webs in greater detail in Chapters 8 through 10.

GLOBALIZATION REQUIREMENTS

Satisfying Differing Consumer Tastes

Before the coming of age of globalization, multinationals pushed their products uniformly across the world by having little product variety. They propagated the mass production philosophy in a quest for higher profits

through scale economies. They were to some extent successful since there were few, if any, local competitors that produced similar goods. However, the local manufacturers and service providers that had much better understanding of the customers within their countries, gained market share quickly as they had enough capital to bring production capabilities at par with local demands.

As recently as 1998, McDonald's looked to push its standard hamburger and fries model into India, something they had done uniformly all over the world. When they reached India, they had to deal with religious sensitivities against beef hamburgers. In addition, they also realized that there was a larger population of vegetarians, and the local tastes demanded spicier food. As a result, McDonald's changed its hamburgers to be made out of chicken, and also introduced vegetarian burgers with patties made from potatoes and vegetables with spicier sauces, something they had not done anywhere in the world before. This localization resulted in tremendous success for McDonald's, following a slow start when they resisted localization. After this learning experience, McDonald's now routinely uses local experts to craft meals based on local tastes, as opposed to pushing the Oak Brook model throughout the world.

Warner Lambert, which has operated in many countries, learned about localization long ago. Its Halls cough drops, a leader in just about every market, is customized for local tastes beyond the cough medication it contains. So, the Halls candies have a strong mint flavor in Japan, are available in ginger flavor in India, and instead of being square, are rectangular in Brazil, where square candies really don't sell at all.

Some other companies have also learned the hard way. The Mondeo, introduced by Ford in the late 1980s, was touted as the global car and yet, was a dismal failure as a world car as it was unable to meet the requirements of other markets, save US and Germany. Though the car was considered small in the US, it was not fuel efficient enough for consumers in developing countries that had much lower disposable incomes. Designed by engineers used to driving on western roads, it had lower ground clearance, because of which it fared badly on the bumpy roads in developing countries. Today, Ford designs cars with more consideration for the local idiosyncrasies and has design centers in India and China.

Being Genuinely Local

To succeed in the growing markets, companies have to pay a high degree of attention to appear genuinely local. They have to think and act local along all the touch points with the customer—the product, the taste, the packaging, how it is sold and serviced. Coke and Pepsi have mastered this. They design their slogans in local languages based on the region in the world where they sell their products, use local celebrities, local imaging and price the products to be easily affordable by large segments of the population. Nestle and Kellogg also customize the taste and packaging of their food products to appeal to the local markets. Auto manufacturers use tropicalized air-conditioners in their cars in countries that are very hot, such as in the Middle East and the Indian sub-continent. This localization has implications on the process and talent structure that companies must have locally within the markets they serve. We will treat this in detail in subsequent chapters on global structuring and organizational resiliency.

Localization is not just about customizing for local demands. In fact, some of the aspects of localization in emerging markets could actually pave the way for the future. Since most of the developing economies, particularly those of the BRIC, Mexico, South Korea, Indonesia and the oil rich nations have essentially taken off in the last 15 to 20 years, they have many additional options for technology at much lower costs than the developed economies. As a result, they have not invested in the expensive infrastructures that their Western counterparts had to do. In fact, they are, in many cases, skipping through entire generations of technology. In addition, the youth in these economies are quite aware of what is happening worldwide due to the Internet and rapid globalization, and in many cases, are demanding the latest technologies and gizmos. A case in point is South Korea, which is the most advanced digital nation in the world with 100 mbps broadband connection across the entire country, and where the latest electronic gizmos in mobile technology are designed and sold, both locally and globally. India, on the other hand, in 2000 had one of the lowest tele-densities in the world, with less than 25 million wired lines phones for a population of one billion. Cell phones numbered less than one million. Getting a telephone subscription was painful business through the government controlled monopoly provider, and often took from three to six months to get a connection. As a result of deregulation and dropping of telecom prices by a factor of almost 100 between 2003 and 2008, India essentially bypassed having to wire up the country to provide wired telephone service. Instead, the newer, more mobile, technology seeking generation picked up cell phones like there is no tomorrow. Today, India has almost 500 million cells, and the wired lines that peaked at 42 million in 2006 are beginning to decline as people are cutting the cord, just as they are doing the world over.

Localization also provides other innovative ideas. Auto majors of the world have been carefully eyeing the growth of the per capita income and the rising middle class, in both India and China, with the hope of selling cars to over 2.5 billion people. However, no auto major was ever willing

to design low cost transportation. Suzuki took the leadership in India and introduced a compact four-seater that was priced around \$4000 to appeal to the cash strapped consumer in India. As a result, auto sales in India took off, in 1982. However, it was not until Tata Motors introduced the \$2000 Nano in 2009, that the world took notice. Tata completely thought through the car and innovated far beyond what anyone had done before. They worked with their web of suppliers and challenged each one to design each component to be functional yet inexpensive. As a result, Tata introduced the car which, on an inflation adjusted basis, is priced at less than half of what the Ford Model T was when it was introduced in 1908! This made the world sit up and take notice. Everyone from Suzuki to Renault and Fiat are now trying to figure out how to manufacture a car costing around \$2000, which can have mass appeal in India, China, Indonesia, Eastern Europe and Africa. Initially, none of the Top 10 auto majors of the world were interested in this segment because they didn't think there would be any margin in this business. However, many are now realizing that there is a large potential market in the developing world and there is money to be made by those who choose to lead the way.

Herein lies the challenge of being a truly global player. One must think differently and design businesses for the future and not simply based on an extrapolation of the past. The developed markets are already saturated and competition will only become more intense, resulting in lower margins. One has to seek out new markets, which, in times to come, will be much larger than markets in the currently developed nations. While they may result in lower margins initially, they hold the promise of a game-changing capability and innovation that could put the company in the driver's seat. Accenture and IBM were forced to respond to the offshore IT model driven aggressively by TCS, Infosys and Wipro. Had they responded to the trend in the early 1990s, they could have prevented the Indian Big 5 from getting a foothold on their own turf. Today, each of the Indian Big 5 are large enough to challenge the global Big 5 IT companies, such as IBM and Accenture, for any IT sourcing deal, anywhere in the world. Thinking globally and innovatively is about seeking out and shaping the future to your advantage, not driving in the dust left behind by a trailblazing innovator.

IT IS INNOVATION TIME FOR ALL

We can draw parallels with the global manufacturing sourcing, and how innovative thinking caused the emergence of a new world order. When the second phase of industrial revolution happened in the post World War II years in the mid-20th century, the manufacturing of the automobile moved closer to markets, and success was driven by those manufacturers that continued innovation of their products and services to suit the customer needs. Toyota changed the rules of the game by flooding the US market with smaller, more affordable and efficient cars when the market was dominated by large, luxurious gas guzzlers. They also got lucky since the Arab oil embargo hit right at that time, causing a ten fold rise in crude oil prices, which overnight doubled the price of gasoline.

We were recently able to observe one of the marvels of the e-world. The IPL or the Indian Premier League, one of the hottest sporting events, had a successful first season in 2008, making it cricket's biggest commercial extravaganza, with viewership and fans extending across the traditional cricket playing nations, including the cricket hungry masses of almost one billion people in India alone. Yet, while trying to host their second season in May 2009, the IPL management reached a point where they could not resolve the issues with the Indian Government. The Government said it could not adequately ensure the safety of the games and players at the same time the world's largest democracy goes to vote for their general elections. After much haggling on both sides, the IPL management decided to move the games' venue to South Africa! With less than a month to make all the changes in arrangements towards security, game fields, hotels, airlines, media coverage, and logistics for team transport, etc., the IPL management executed this shift flawlessly, resulting in a very successful second season. Large stadiums housing from 30,000 to 60,000 viewers were full for all the 59 matches and TV channels all over the world were buzzing with increased viewership, second only to World Cup Soccer, and heightened revenue from the precious commercial slots. Every team, every owner, and in particular, the BCCI, the owner of the IPL, made huge amounts of money both through stadium receipts and by selling lucrative TV rights, which had the captive viewership of over two billion people.

How could such a large undertaking have been shifted to another continent in practically no time?

Clearly, the IPL management had already investigated and detailed their Plan B. They were able to negotiate all their deals with alternative suppliers in another country through the use of global electronics and communications, and handle the shifting of logistics through a small group of individuals in record time. This has now proved that one need not be shackled to one geographical location, but can move massive undertakings dynamically anywhere in the world at short notice. With the unification of all the resources in the globally connected multi-polar world, one doesn't need a second thought to capitalize on such opportunities.

Certainly, a shift of this magnitude in such a short time would have been virtually impossible in the 20th century. What made this possible?

Innovation, technology and human ingenuity were collectively able to tap into the global resources to shift value creation from one place to another dynamically. This is beginning to happen in every industry.

We will treat several of these models in detail in chapters 7 through 9, and specific strategies and structures that companies can put in place to create and capture unusual value by leveraging global resources and models.

BOUNDLESS INNOVATION EVERYWHERE

The new transformational plays bring to focus computers, mobile devices and global connectivity which is leading to making e-everything and creation of m-macrocosm in a ubiquitous manner. Gone past the novelty or curiosity stage, these devices are now being used by everyone. This transformation is due to the desire to gain information, or perform tasks like, say, buying a book from Amazon, or renting a movie from the Apple iTunes store, all to be concluded in a matter of seconds. Charles Darwin's theory of "Survival of the Fittest" is very applicable to today's global competitive market as well. With an increasing number of consumers connected by computers and mobile phones, companies have to provide services that consistently exceed one's expectations.

Examples of innovation include a jet-set corporate executive who is able to access and review information regarding the latest M&A while flying at 40,000 feet over the Atlantic, all accomplished through secure satellite communications. This real-time action can make the difference in winning or foregoing a prized deal. Similarly, a villager in a remote village in Kerala, in India, can communicate electronically, and receive a money order from his son who is working on the oil rigs in the Gulf, and accomplish all of this by paying less than 10 cents for half hour of Internet access, at a cyber café powered by a diesel generator. While the former example is the prized innovation of Boeing, the later is an equally strong example of innovation, which shows that advanced capability can now be available equally to either a powerful corporate executive with easy access to the most sophisticated technologies, or to one with meager means in the developing parts of the world. While the first example has participants such as satellite companies, aircraft manufacturers like Boeing, and capable corporate IT departments, the latter example is put together through a value web that includes participants such as Western Union, Google or Yahoo, telecom providers, a company that has erected and maintains the

tower at the nearby hilltop, an IT outsourcing service provider that runs the datacenter for the telecom company, and the sheer enterprising zeal of the cyber café owner, who also probably doubles up as a tea-vendor, while keeping a tab on the usage of his two computers by his customers.

New business models are sweeping the global landscape like a wild fire. After having invested billions of dollars in laying fiber and copper to homes and offices, the industry incumbents were in no hurry to promote mobile penetration in developed countries. On the other hand, their counterparts in developing countries simply bypassed the expensive last mile wiring and implemented a mobile technology infrastructure. Furthermore, players in the newer economies had to conceive and implement a much lower cost model and aggressively promoted a prepaid model, while their Western counterparts pushed a more expensive post-paid model, which required paper billing. Cost reduction apart, the prepaid model also works extremely well for millions of migrant workers without fixed addresses of their own. Further, it automatically eliminates the risk for both parties, i.e., the providing companies since they have their money up front, and the consumer, whose expenses are capped at the prepaid amount so they cannot overspend when they cannot afford it. These, along with low cost entry-level units and low per call cost, are what led to the mobile telephony explosion in developing nations.

Companies that take the leadership positions in technology advancement, which often will result in revenue cannibalization of their primary 'cash cows,' will be the ones who will attract more new customers, and can continue to be leaders in the emerging new world order. Those who rest on their laurels or are unwilling to invest in the future, will be pushed against the wall, just a much of the US auto companies have been. At a recent meeting in Detroit, GE's CEO, Jeff Immelt noted that the US needed to reemphasize research and development, and rebuild its industries through investments in technology, which had been deemphasized for the past two decades. For too long, there has been an emphasis on financial engineering and milking the top and bottom line in companies. This has come at the expense of investments for sustaining the competitive edge over the long-term. Immelt also announced that he would shift the focus of GE Capital, whose value has dropped precipitously and now accounts for only 30 per cent of GE's profits, down from 50 per cent before the economic meltdown.

INCREASING ELECTRONIC TRANSFORMATION

Time has come for most corporations to relook at their complete value chain and the ecosystem within which they participate. They need to

carefully examine the future scenarios and study the impact of technologies, globalization and the shifting of global resources and markets, which could create a fundamentally different competitive landscape than the one they may have been used to. They need to be prepared for new competitors who could jump out from behind the bushes when they are least expected. Linear thinking is no longer valid since disruptive technologies cause discontinuous changes. As we discussed earlier, major telcos around the world are seeing a formidable new competitor in Tata, something they would never expect from a company mostly focused on the Indian market and better known for steel manufacturing, automobiles and consumer goods.

It is now increasingly evident that next generation of corporate initiatives will aggressively leverage ITEC. E-Business and m-business will increasingly become part of the business operations because of the enormous advantages of spontaneity and immediacy they provide in business operations. We are able to observe many examples of real-time business operations. Most Hollywood and Bollywood filmmakers are now resorting to digital release of their movies. In order to protect the movies from piracy, they transmit digitally encoded movies simultaneously in a single transmission to hundreds of multiplex theaters.

Unable to digest and cash in on the possibilities that the Internet has opened up, the RIAA¹ (Recording Industry Association of America) confronted the notorious service provider Napster, which allowed over 60 million users to freely swap digitally converted music over the free-forall Internet. The music industry successfully fought Napster and finally had it closed. However, many think that Napster actually created a market for legal CDs after users, becoming hooked to certain music, even if it was through illegal copying, eventually sought and ended up purchasing the legal music CDs. So, while the music industry was recovering from the revenue loss caused by Napster, a new improbable and fundamentally different channel emerged with the introduction of the iPod by Apple. Suddenly, songs became available for only 99 cents each rather than the \$15 for a typical CD, which was the only way to buy a song prior to the introduction of the iPod. The music industry has negotiated a position with Apple that allows both to succeed while providing an unusual value proposition to the consumer. Online sales through Apple's portals have surpassed one billion songs. It now provides a platform for future movement of any digital content in the form of TV programs, sports, news

¹ http://www.informationweek.com/news/software/enterpriseapps/ showArticle.jhtml?articleID=6507961, (2009).

and movies—all of which have already begun their successful journey on Apple's iPhone 3G and 3GS.

While the above illustrates a shift and defensive response by an industry, companies would be much better off if they embraced the technology, understood its implications and themselves rethought their business models to create new opportunities through the leverage of technology. Netflix, a mail-order movie provider that shipped movies to homes through a phone or Internet order, has rapidly moved to the Internet. Now, with high speed Internet being commonplace, it is possible to download complete feature films in a matter of a few minutes. Electronic download drastically reduces Netflix's cost by eliminating physical media, warehouses, packing and shipping, receiving and restacking services and billing for other damaged or non-returned goods. Instead, a few individuals can now manage the content and billing through computers and forever eliminate the physical form of stamped DVDs, which were being handled by the millions through sophisticated mailing and sorting systems in various warehousing and shipping points. Many other global players are getting into the game now. For instance, Yahoo is offering unlimited music downloads for a reasonable monthly fee and Amazon is offering book downloads and viewing through their wireless Kindle product, providing unmatched portability, flexibility and access to the complete library of the millions of books they have.

By providing bundled deals that combine both physical and electronic products, companies can create customer stickiness, which dramatically reduces their ability to switch. It is almost impossible to displace an incumbent who is providing telecom services such as unlimited monthly phone calls and data services on smart PDAs such as the Blackberry or the iPhone.

THE NEW GLOBAL BUSINESS

Technologies in all forms—electronics, telecommunications, mechanical systems, medicine or any other area of human pursuit—will continue to grow and improve as human beings continue to innovate and exploit the physical and biological properties of what is contained in the universe. Given the massive technological development in the 20th century, many observers have empirically suggested that technological knowledge doubles every 10 years. If the innovations such as the aerofoil, radio and computers of the 20th century are any indication, the best is yet to come.

The world waits with bated breath for dreams to materialize, dreams, such as a universal vaccine that will allow every human being to take one shot and live a healthy life for 100 years. This may very well be realized

sometime in the 21st century as scientists unravel the mysteries encoded in our genes.

But what can we expect in the area of globalization and what and how will technologies promote globalization?

In a global world, companies and individuals will look at ways to continually leverage their resources, i.e., time and money. Exploitation of technologies will clearly follow along these lines where they can continually reduce costs and time, and perhaps even do things that were impossible before, just as wings of the aircraft made fast intercontinental travel possible.

We believe technology in the global world will result in an altered world that will have:

- Dramatically reduced travel for business purposes.
- Increased electronic buying and consumption.
- Pervasive electronic access to just about everything.
- Low cost video communications.

Reduced Business Travel

In the age of computers and the Internet, much of the work that is performed within a company can now be readily viewed and observed in web conferences, video conferences or other similar mechanisms. With increased globalization and the necessity for a company to interact in far off places, it will be very expensive, if not impossible, to have key individuals traveling the globe in order to sell or provision services. Instead, other than necessary face-to-face interactions for selling and gatherings for key information exchange, almost all the work can be done through phones, computers and video screens. As a result, the companies will be able to operate globally using local resources down to country or city level, without having to do much travel.

In the era of the global economic meltdown in 2008, many companies have cut back on their travel. As a result, airlines around the world have seen passenger loads decline by as much as 25 per cent. Airlines have also reduced capacity and taken some planes out of service. In addition, automobile transport has declined significantly and one is once again able to find more open roads than ever before. This can clearly be seen in the 10–15 per cent reduction in global oil demand, which resulted in more than a 50 per cent decline in oil prices from their peak of \$147/barrel.

Travel will no doubt increase once companies reduce their travel restrictions. However, having experienced no significant negative impact due to reduced travel, companies will continue to push the use of collocation technologies that will reduce travel, since this will not only
reduce expenditure, but also eliminate non-productive travel time and result in less tiredness of their key resources.

Increased Electronic Consumption

Most companies now have full product catalogs, advertisements, ordering and billing systems that are available online just as they were through retail stores earlier. While the combined 'bricks and mortar' and 'point and click' cyberspace models will coexist for sometime, consumers are increasingly turning to web based shopping due its convenience and ability to save on time and travel. While the electronic mechanism cannot duplicate the window-shopping and the real touch and feel experience of shopping in a mall, it nevertheless is a useful mechanism for non-experiential goods and for routine replenishments. While Internet ordering and associated product delivery through UPS or FedEx are in vogue in the US, other countries have similar patterns and sometimes more innovative models. As an example, there are still millions of small retailers in less developed economies that supply products and services to customers within their proximity. Due to a lower cost labor structure, today many of these retailers offer home delivery of goods and services which are enabled through the telephone, which in effect mimics what the Internet provides for similar replenishment in more economically advanced countries. To take another example, moviegoers in Japan, Korea, China and India, are routinely buying movie tickets through their cell phones or PCs at rates much higher than in the West!

Electronic shopping is only one aspect of electronic consumption. Today, many experiences of the yesteryears are gradually diminishing or disappearing in the age of electronics. It was initially argued that the romance of letters will never disappear. Today, the global postal system is under severe pressure as letters, both personal and business are essentially disappearing, to the point that the mighty US Postal Service is looking at ways to reduce its cost structure to match the declining revenues and is seeking permission from the US government to reduce the days of postal delivery from six down to five. However, this is only an intermediate step before all information that is currently on paper will, by and large, be delivered electronically. It has often been noted that we may well be the last generation that knows paper as we do, in the form of letters, magazines, books and newspapers. Many of these will disappear altogether as electronic books, newspapers and e-mail replace this low velocity system with instantaneous electronic retrieval systems where an individual can access the entire spectrum of human knowledge ever documentedanytime, anyplace. With rapid digitization, many physical media things

will disappear altogether, and associated with that, many jobs will have to be recast for a vastly different economy. Some of the industries under severe pressure include chemical photography, travel agencies and middlemen, libraries, music CDs, movies, videos, DVDs and the like.

Companies that will succeed in the future are the ones that can bring services to a consumer's home by practically eliminating the physical media altogether. Winners will include those in home delivery services, courier services and those with high digital content in their offerings. Even in the case of personal computers and laptops, it is very possible that all someone needs is a NetPC through which one can access the web and can also do all their applications processing and storage, without ever having to worry about operating systems and applications upgrades.

Pervasive Electronic Access

With the digitization of all information in the world will come pervasive electronic access. Initially limited to the fortunate within a few flourishing companies and countries, electronic access is now within the reach of the masses the world over. Around 1950, there was essentially no information stored in the digital electronic format. All information existed on paper, cloth or even rock tablets. Today, anything that is printed, published, displayed or exhibited in any form is first composed on computers and thereafter maintained electronically on computer disks. In addition, every book ever published since the dawn of time will be available electronically within a few years, as the global digitization program is completed. The costs of computers and telephony are continually dropping with the advancement of technology at the rate of 30-50 per cent per year, if not more. As computer technology continues to progress at the rate of the Moore's Law, a computer today which is 1000 times more powerful than a computer a decade ago, costs one quarter of it or less. In addition, telecom and access costs in many countries have dropped by a factor of 100 within the last decade².

Manufacturers of access equipment are quick to recognize this and many of the electronic access devices are changing to provide the ubiquitous electronic access to all individuals at an affordable price. Personal computers are transforming into low cost NetPCs, which are likely to be available for less than \$100 in the next two years, and almost all cell phones today

² Most notable is the deregulation of telecom rates in India by the Telecom Regulatory Authority of India (TRAI) in 2004, which resulted in an explosive expansion of telecom and mobile telephony in India, and with it the rates dropped by more than a factor of 100 in five years.

provide Internet access, with many devices being available for less than \$25 in developing countries. With this continually declining cost of technology, it is estimated that the entire human population that wants to have access to the Internet, whether in a rich nation or one not so rich, will be able to do so easily with either a device in their homes, or in their hands, while on the move, before the end of the next decade. Certainly, 2020 will be a year to watch to see if many a futuristic thought prophesied 25 years earlier comes true³.

Low Cost Video Communications

The world has had a lot of false starts with videophones, which were first exhibited with a lot of promise in the 1980s. Today, many companies such as Packet 8 and Vonage offer videophones that enable the viewer to both talk and see what is happening through an electronic eye or a camera at the other end. Many companies such as Intel, Cisco, and Microsoft are all trying to arrive at a low cost mechanism to allow electronic presence similar to the live video exchanges between the television news reporters on the field and the anchors at the studios, all of which are projected to the viewer on a TV screen. Telecommunications companies which will be part of this major delivery mechanism are aggressively getting into this game to offer these video and tele-presence technologies, lest it be wrested away from them by a satellite or cable company who could very easily deliver these services over their network, since they also have access to the final consumer's home through their infrastructure.

Just as the world lumbered through the 64 kbps modem for a long time till it was replaced with path-breaking 1.5 mbps DSL technology, low cost broadband technology has now jumped light years ahead by providing speeds of 16 mbps and beyond. Cable, modems and fiber optic networks have moved us even further into the 30–100 mbps world, ushering in the era of electronic music, movies and many such services. Today children, even in developing countries, are unwilling to use an old monochrome screen with a 64 kbps dial-up connection to do their work. With rapid development of the G4 technologies in telecom, the future holds a promise of 100 mbps point-to-point wireless communication by 2015, which will allow full motion video to flow to high-resolution screens held in the palm of a hand. There is hope after all that videophones that were first displayed by AT&T in the 1980s, will finally become successful and ubiquitous.

³ Vision 2020, Transforming your business to succeed in tomorrow's economy by Stan Davis and Bill Davidson, Simon & Schuster 1991.

Shifting Industries

The Global Marketplace expands and transforms the opportunity space for consumer products and services. The expertise and skills to compete will be based on how best an enterprise is able to tap distributed intelligence through Internetworking of various building blocks of the value creation web. Not only will the principles of virtualization be increasingly relevant, but so also will the need be to build immediacy and intimacy relationships with customers at the local level. Our premise is that no company has the resources to control the entire value creation and delivery chain in the global era. Whatever advantage they may have will be nullified by faster moving competitors, unless they can participate at the industry ecosystem level and leverage the resources of many participants, which is something a competitor will have difficulty in duplicating.

This chapter was devoted to identifying some of the key technology disruptors and their impact on the business ecosystem created by the ITEC convergence. We underlined the impacts of this convergence, which requires all global enterprises to rethink their processes and business positioning both within and with those of their partners. The prescriptions are not only relevant for growth, but in some cases, for the very survival of certain industries. At the end of the day, both the likely winners and losers need to rethink their businesses and make proactive moves to thrive or survive.

Industries Under Pressure Due to Disruptive Technologies

Just as automobiles put pressure on railroads by permitting affordable point-to-point travel by an individual instead of a shared point-to-point proximity travel, similarly many other industries will also see a gradual fading of their fortunes unless they are able to innovate and redefine themselves. These include:

- Wired line and pay phones, as their relevancy declines in a mobile world.
- Copiers, fax machines and printers, as physical media, particularly paper, has less relevance.
- Chemical photography which can, by and large, be replaced with digital photography, which allows better storage, sharing and transport.
- Post office, particularly for mail, as paper mail in any form, such as personal or business letters, bills, advertisements, etc., goes the way of the dinosaur.

- Physical media information industries—magazines, newspapers, books, CDs, DVDs and their playing devices—as they are replaced by electronics, computers or other smarter electronic devices that will be used to visualize the information.
- Standalone, small amateur cameras, as they get fully integrated into one device within the mobile phone.
- Libraries, as all information will become available electronically.
- Intermediary industries such as travel agencies, insurance agents, brokerages, and many physical stores, as direct to customer models take hold.
- Air travel, particularly for business, as tele-presence becomes a reality.
- Commuting to work, as tele-presence becomes the norm of the day.
- Physical colleges and universities, as their electronic versions emerge.
- And last, but not the least, the mighty pen and paper!

Just as in the case of the US postal service, where paper mail is becoming increasing irrelevant now and their volumes are declining at 10 per cent per year, so will we eventually reach a tipping point when electronic collaboration technologies become the norm, resulting in a decline in the demand for cars, planes and eventually energy that powers them, at least in the more technology-consuming economies. Just as the currently developing world skipped the generation of wiring the country for the telephone networks, so could countries yet to develop, forego large superhighways and airport networks in favor of far more energy and cost efficient transition to an electronic economy, which will be the eventual end-state of all economies, based on current and emerging technologies.

Industries Where Disruptive Technologies Create Opportunities

The corollary to industries under pressure would be industries that are being created as a result of the disruptive technologies. There isn't an exact one-to-one match of pressure versus opportunity. Some of the industries that are likely to benefit are:

- Wireless technology-enabled industries and wireless infrastructure providers.
- Fiber optic technology-related industries including transporters, as the future of super high-bandwidth will be enabled through this media.

- Home delivery and courier companies, as individuals increasingly let their fingers do the walking and increasingly get goods and services shipped to their homes.
- Media and electronic content owners, as they replace physical media consumption and allow consumers to download the content electronically to their computers or entertainment systems.
- Value aggregators and assemblers, e.g., telcos that provide integrated voice, video and other electronic interactive communications, or business and entertainment aggregating platforms or portals such as Apple's iPhone.
- Electronic media industries that provide books, magazines, news, movies and other entertainment shows in electronic audio and video formats.
- ITEC industries, i.e., telecom, electronics, computers and Internet enabling companies, as they are the very platform through which the physical to electronic transformation of industries will occur and this includes hardware, software, storage and transport of information on shared infrastructures.

Companies need to examine the value migration in their industries and not be left the way of the railroads in the US, who became complacent and never redefined their business. They would all be long gone, at least as regards passenger services, had it not been for the continued massive government support for decades⁴.

Every Company has to Change

The early indicators to these harbingers of change already provide enough insights and warnings to companies that will either benefit from these changes or will need to change their business dramatically to succeed. Nevertheless, all companies will have to be on their toes, either to leverage the opportunity presented to them on a platter, or to rethink and redefine their business to survive.

I am reminded of a simple story from the African jungle.

Every morning in the Serengeti, when the lion wakes up, it has to get up and outrun the slowest gazelle; else it will get nothing to eat.

Similarly, every morning when the gazelle wakes up, it has to get up and outrun the fastest lion or be eaten.

So what is the moral of this simple story?

⁴ 'Bipartisan Bill Funding Amtrak Passes in House', *Washington Post*, 12 June 2008.

The moral is: whether you are a lion or a gazelle, when you wake up in the morning, you have to run like hell!

Similarly, for companies, it doesn't matter whether you are the king of the jungle or one whose fortunes could fade in a rapidly moving global economy. Every company must 'run like hell' and continue to redefine itself for success in the global economy.

SUMMARY OF KEY THEMES

- 1. Information Technology, Electronics and Telecommunications (ITEC) together have changed the complexion of the world economy. Within the ITEC are several disruptive technologies that are dramatically altering the economics of several industries and putting traditional incumbents in several other industries under severe pressure.
- 2. The new transformational plays in all industries are focused on computers, mobility and global connectivity, wherein everyone can participate.
- 3. Successful globalization requires that companies satisfy differing consumer tastes and requirements around the world, appear genuinely local and then extend innovation globally.
- 4. Value webs that transcend the company, country and continental boundaries are silently being created, with scarcely anyone even realizing it.
- 5. No one can stand still. Every company must understand the plate-tectonic impact of technologies on their industry and the ecosystem, and take innovative measures to ensure their ongoing success.
- 6. Exploitation of these technologies will result in a world that will have:
 - (a) Dramatically reduced travel for business purposes
 - (b) Increased electronic buying and consumption
 - (c) Pervasive electronic access to just about anything
 - (d) Low cost video communications
- 7. Several industries are under severe pressure and are likely to disappear altogether just as the horse-drawn carriage has. But several new industries will emerge which will make all our lives much easier. Those who think creatively can shape the future to their advantage.

FOUR

Global Index

Globalization has changed us into a company that searches the world, not just to sell or to source, but to find intellectual capital—the world's best talents and greatest ideas...

Jack Welch

S o WHAT IS YOUR GI? To win in the global economy on a sustained basis, having good products and services is not enough. One must also have a high GI, or Global Index. Globalization is the change in the international economy that has made access to goods and services available to just about everybody on the planet, the likes of which have never before been seen. It's the integration of worldwide investment opportunities and resources, productive bases, ideas and markets. Within the last decade, companies are flocking to bolster their positions in the international markets. However, they are using the same processes for expansion that they have implemented in their historically dominant markets. In our view, while easy to implement, this standard approach will not serve them well in newer markets.

In order to evaluate the successful performance of companies on a global scale, we have developed a metric called the Global Index or GI. The Global Index measures how companies are currently performing at a global level, and how they can connect different factors to attain unparalleled success at a global level. While one can come up with a very large number of parameters to measure global success, the comprehensive Global Index that we have used successfully to gauge a company's international capabilities and performance, consists of eight parameters. We have organized these factors into four primary factors and four associated causal factors, since there is high interdependency between the primary and the causal factor. Table 4.1 illustrates the eight GI factors.

Primary factors	Causal factors
Revenue (Markets)	Human Capital
Processes	Metrics
Innovation	Localization
Leadership	Objectives

To provide a comparative metric, the eight factors are displayed on a radar chart as illustrated in Figure 4.1. A company's GI can be gauged by their specific footprint and by where the gaps are. A score of five represents a company that has achieved a full score, reflecting full global capability on that particular factor.

FIGURE 4.1



REVENUE AND HUMAN CAPITAL

Revenue of a company is the income they receive from the sale of goods or services to customers. Companies are always keen on attracting more customers from different geographical locations, which increase their total revenues. By far the best companies are able to generate approximately 90 per cent of their revenues from just seven to 10 of the largest markets, which, in most cases, is the G7. The amount is indeed staggering, but considering the fact that this only touches approximately 40 per cent of

the global gross product, it depicts a low valuation on the revenue scale of the GI. We pointed out in earlier chapters, that the net economic output of the G7 is continually declining as a percentage of the global economic activity, as other nations are able to exploit their resources and improve their economic well being. Therefore, it is important to play close attention to the ratio of the world share a company is participating in.

In the past, most companies were unsuccessful at harnessing or developing markets beyond their local or proximity markets, which in the case of the developed world was limited mostly to the G7. This was because of several factors that included complacency due to enough riches from large markets, a reduced ability to manage risks in newer markets and in distant lands that their management team had no exposure to. There were also pressures from the stock markets for quick and high returns as well as governments, which often prevented investments in new markets and the transfer of key knowledge and technologies to other parts of the world. While this approach served companies well in the past, it is now no longer sufficient to operate in just one's familiar turf. New age competitors are attacking almost every company on their home turf. In such cases, they say offense is the best defense, and companies need to expand their footprint into the very markets from where new challengers emerge. The most illustrious example is the attack on the American IT services industry that was quite complacent and was able to capture huge surpluses from customers, from the 1970s to 2000. It was the Y2K phenomenon that allowed companies all over the world to taste low cost and high quality service from relatively unknown players in India, such as Wipro and Infosys, a fact that forever changed the IT services industry. All well-heeled players had to take notice, after which they simply resorted to a 'me-too' strategy by establishing centers in low cost and emerging market destinations, such as India and China to obtain competitive cost parity. However, the Global Big 5 yielded the market to the Indian Big 5 companies, who are now routinely invited to all large IT services deals, globally.

The diametrically opposite parameter to revenue or customers in our model is human capital. Luminary companies have well understood that this causal factor is one of the most important factors that can make them successful, globally. No company has proven to be successful globally by simply leveraging its management and knowledge expertise from the headquarters and applying it globally. This is to say that 'we in the headquarters have figured everything out' simply doesn't work in the global context. Clearly, there are not too many takers for such as a philosophy in a highly diverse and knowledge rich world. GE, a company heralded for its insight and global reach in the 1990s, said it all too well in their annual report—"We do not claim that we in headquarters are the fountainhead of all knowledge. However, what we are good at is that when we find a good idea somewhere in our operations, we are able to quickly leverage that practice in our global operations, thereby benefitting all our businesses globally." So, our thesis is that companies that can harness human capital globally, are the ones best positioned to grow their revenue and customer base globally.

Harnessing global human capital requires thoughtful execution. Firstly, the company has to identify its leaders that are essential for human capital growth. These are individuals that are both open to learning as well as teaching their trade to leaders in other parts of the world. Strong leadership dictates that they eliminate the parochialism that often exists in successful companies where the headquarters' staff often tries to control all knowledge dissemination, little realizing that they may be left behind. The US auto industry ridiculed the Japanese and the Germans in the 1970s, for making `cheap toys', and it took them almost a decade to admit that perhaps the auto makers in these countries knew something about quality, performance, styling, manufacturing efficiencies and overall value assembly within the product. Had they responded immediately, they would not have yielded precious ground, which they could never make up. Twenty years later, the US IT industry reacted in exactly same manner and ridiculed the Indian IT industry as one that knew nothing more than data entry and COBOL code maintenance.

Secondly, one must realize that local knowledge is essential for success in new markets. As we discussed earlier, cultures, tastes, languages, human resource practices, business practices and how things work differ from nation to nation. The core leadership teams that are custodians of the knowhow of the company, need to transfer that knowledge to the identified leaders who support the operations in various global markets. By enabling the leadership teams in new markets, companies are able to derive a force multiplier effect. The trained and skilled local leaders can then easily extend the expertise, knowledge and practices in the local operations. This regionalization of human capital across various geographical locations enables companies to grow faster and be more effective globally. Many companies also find that they can learn from key leaders in different parts of the world, and can then leverage that learning globally just as GE does.

Companies like Wal-mart, Caterpillar, IBM and others, which started from the United States, did have a runaway success in the location where they engineered and built the core business foundation, as well as other G7 countries, but failed to capitalize on building markets in the G20 countries. The major factor that contributes to this orientation is the lack

of utilization of human capital and the knowledge of local markets, which could help in them in attracting huge local customer bases. GI stresses the leveraging of human capital at a global level. However, IBM, which has often been accused of being slow, has nevertheless proved to be a resilient learning organization, and finally recognized that it cannot simply focus on the G7 alone for its revenue base. Another early adopter of globalization, Intel, declared in 2003, that its human capital ratios will mirror its major markets ratios, i.e., as revenues build in new markets such as the BRIC, so will its portion of global human capital. Many other companies such as IBM also followed along the same principles and are now aggressively hiring and developing talent to serve local markets. Today, IBM has huge operations in India, China, and many other developing economies to serve the rapidly growing companies and governments in these countries, all of whom are seeking the latest technologies, capabilities and solutions that these industrial leaders have long been providing to the leading companies in the G7. Therefore, a company that has a high local human capital leverage has in place the key enabler for successful local market penetration. Very simply, high global human capital leverage can yield a high global revenue index.

PROCESSES AND METRICS

As companies grow, they focus on defining and standardizing their processes. Well-defined processes crisply articulate the roles and responsibilities of people who perform the processes, as well as how they are performed, and then yield a defined set of expected outcomes. Consistency in performance in all its operations enables a company to deliver consistent products and services. Over a period of time, companies adopt a standardized process that are tried, tested and true, and are optimized to achieve success. While this is all well and good, it is also a double-edged sword. Even while efficiency is essential, resistance creeps in, and over time, processes become institutionalized and companies often become resistant to changing their sacred processes.

In an ever-changing world, companies can no longer rest on their laurels. No market, technology or knowhow can be protected forever, even if there is legislation to protect an industry or company. Today, success that is confined to just a couple of geographical locations or countries, is meeting stiff competition. Companies need to be able to adapt, and adapt quickly, since a brilliant idea from a smart new competitor can often destroy the very value a company may have carefully developed and nurtured over decades. The time period from 1960 to 2000 was witness to the rapid growth of the U.S. and the eventual emergence of its corporate giants that ruled the world with their cutting edge products and services across every industry, including transportation, energy, electronics, telephony, computers, aviation, medicine, banking and agriculture.

However, most of these companies restricted their operations to the G7, which then accounted for over 90 per cent of the global developed economic markets. However, as the markets began to shift, these companies were not able to adjust. The reasons included corporate memory of resistance to change, pressures from the Wall Street, and finally not having the will and ability to make the investments to renew their processes and operations to reflect current market realities. A change in the processes involves a large investment in capital, information technology and associated retraining of employees. Very often, one sees companies getting into 'analysis paralysis' associated with investments in information systems and automation that supports their business processes. In large companies, SAP or Oracle or other ERP implementations can often run into hundreds of millions of dollars, and any changes to systems that have corporate-wide impact can often cost mega millions. This often results in slowness in response, which can be translated into an unwillingness to change. Such companies only make a change when they pushed to the corner by competition, which often is too late.

Companies that resist these changes are anti-global and will eventually lose their hold, even in the markets they control, let alone have any ability to expand into new markets. The US airlines and retailers are a classical example of companies that have become too comfortable in their home turf. Yet, in protecting that very turf from competitors, they have failed to make a dent in the global retail and aviation boom. Moreover, almost any frequent traveler will vouch for the fact that the US airline industry, once the pride of America and the world, and one that provided unparalleled convenience, flexibility and quality in air travel, went from being the best in the world in the 1980s to among the worst, in terms of service, by 2005.

There is hope after all. Companies need to shed their past and think of the future. For effective short-term and long-term operations, there are three major process categories that a company needs to focus on:

• Efficiency—Focus on minimizing cost structure and unit cost per product. This often leads to standardized processes, reduction in variety and serving markets and customers where companies can make a profit in the short-term.

- 70 Winning in the Global Economy
 - Effectiveness—Focus on customer alignment while dealing with unique service elements and customization. These actions often lead to flexible processes that allow customization and integration of value across the various products and services that a company provides in order to offer a unique value proposition to each customer. When done well, it results in customer loyalty even though the company may not have the lowest cost for its offerings.
 - **Sustainability**—These are processes that enable a company to maintain efficiency, effectiveness and the very business existence for long periods of time. Sustainability has several other sub-process areas which are:
 - (a) Adaptability—The business continuance models that ensure that a company can adjust to the changing external marketplace, customer, technology and offerings landscape. Apart from these external factors, companies should be able to adapt quickly when it comes to competition and incorporating newer technologies.
 - (b) *Manoeuvrability*—Business models, process and resource structure that enables a company to quickly move and deploy resources, e.g., to shift production from one country to another, or leverage the partner resources of a large number of certified suppliers whose capability can also be used in research, production and selling. This can provide a multiplier effect, compared to a company trying to do everything with its own resources. To capitalize on a rapidly growing market, resource manoeuvrability plays an important role.
 - (c) *Flexibility*—Since change is continual, companies should comprehend and strategically make systematic investments that allow them to move with the times. Improvement in their existing products and investments in new ideas would always give one company an edge over the other.

However, while noting these important aspects, very few companies are focused on processes other than the first two categories of efficiency and effectiveness. To compete and be effective globally, sustainability is perhaps an even more important factor. Within a global context, flexibility and adaptability to local market requirements is paramount to success. Manoeuvrability of resources then goes hand in hand with flexibility, since companies will need to have the ability to quickly deploy and move resources as markets and customer preferences shift in a diverse world.

Apple, in recent years, has had phenomenal success. Their sales per employee ratio is three times that of most other companies in their industry,

including IBM. The main contributing factor to Apple's success is it's a constant change in its product line. Over the period from 2001 to 2009, Apple has introduced several products where it has taken the technology to the next level. The MacBook, iPod, and iPhone are among the top 10 gadgets of the decade. Apple has also reengineered and redesigned many of its key existing products including the iPod. The ability to adapt quickly to market demands, systematically change and cannibalize strong product lines, and continually push the boundaries of technology and innovation surely makes Apple one of the most resilient sustainable companies of all times. Even while others like RIM, Microsoft, Google, Nokia and all PC manufacturers are hot on the heels of Apple, it is able to outdistance its competition and maintain industry leadership. It could have rested on its laurels after the super successful launch of the iPod. However, it took the learning from this successful product, and then ploughed the profits to further improve both this product and come up with other innovative new products such as the iPhone and the iPod touch. Apple's success also fuelled the success of its suppliers, the telecom companies and even the application and gadgets developers whose products are available through the Apple store.

In our experience, we have seen that as companies get larger, they are more and more controlled by business analysts and finance teams, rather than scientists and engineers who design and develop the very products that the company sells. When you ask a company for their top metrics they are very quick to show you revenue, profit, market capital, market share and the ensuing discussion quickly gets to how effective the company is at managing scale, unit costs and productivity. Yes, these are very important measures in relatively stable industries such as cement manufacturing or electricity generation, which is closely monitored by Public Utility Commissions for their cost structure. However, these are very wrong measures for companies that are in an increasingly competitive world where new competitors from around the globe are popping up everyday. While these efficiency metrics are always important, companies often overlook the more important metrics, i.e., the ones that focus on effectiveness or customer alignment and finally those of sustainability that enable a company to be both efficient and effective over long periods of time.

Apple has historically focused on key metrics for its businesses that are different from most other companies. Apple focuses on and measures sales leverage and headcount leverage of key partners and suppliers into the value chain to produce a multiplier effect, extended value chain capture beyond its own product sales, innovation, new product introductions,

percentage of sales from products introduced within the past two years, and ease of doing business with Apple. These measures are quite different from what other companies focus on, and they are aligned more closely with the effectiveness and sustainability processes.

Clearly, each company has a different basis of competition in the marketplace and will place a different emphasis on various factors. However, in order to be effective globally, each company needs to examine who they are, what they want to be within the context of a global landscape and adjust the focus on processes that will enable a higher GI. All of these will place an increased emphasis on effectiveness and sustainability metrics, which will automatically align a company's processes for resiliency and success within the global marketplace.

INNOVATION AND LOCALIZATION

Constant innovation is always a key factor in the growth and sustainability of an organization. Organizations should be able to predict the lifespan of their products and need to continually renew them in order to reinforce value in the minds of their customers and gain their undying loyalty. Apple, a brilliant innovator, continually upgrades its products that the world waits for, in its 'standing room only', annual announcements at the MacWorld and the iPhone conferences. Companies need to continually challenge their assumptions and, in particular, the very premise that may have helped them attain the initial product superiority or customer satisfaction. What it takes to succeed today may be at the opposite end of the spectrum of what made the company successful in the first place. IBM, which once ruled the global computer market, successfully innovated and transformed itself into an information technology business solutions company that excels in automation of business processes. IBM innovated because the computer hardware business was changing far too rapidly for anybody to effectively make reasonable margins.

Companies are keen on pushing their established products into new or emerging markets. While some have had success, many have failed. They have failed, because they were not able to comprehend the localization requirements associated with their offerings. Lack of such an understanding can result in failure of the best of products. As an illustration, General Motors introduced the popular Chevrolet Nova in Mexico, a Spanish speaking country but didn't achieve the success it got in the United States. In fact, the car was the center of many a joke in Mexico. GM finally realized that "Nova" translates to "Doesn't go" in Spanish, and quickly changed the name to Caribe, and the car's sales took off. The auto manufacturing companies in the 1980's that sold automobiles to a 50 per cent to 60 per cent customer segment of the G7 countries, were able to target just a minute segment of the two fastest growing mechanized transportation markets on the 21st century, i.e., India and China. Though relatively unknown outside the industry, it is a well-known fact that individuals can ordinarily spend only 30–40 per cent of their annual salary towards the capital of their transportation device, be it a car, a motorcycle or a bicycle. Auto companies from the G7 were used to making cars for people with a much higher income in the G7 nations, and were not able to successfully sell cars in much lower income countries of India and China, where the same car typically cost around 300–400 per cent of a person's annual salary! To achieve success in India and China, two countries that comprise 40 per cent of the world's population, automobile companies needed to think differently and innovate cars that the large segment of the market would be able to buy.

Large emerging markets hold a huge potential for future growth and profit and companies need to have a long-term view and not go in for immediate, near term profits. Suzuki, a relatively small and unnoticed player in the Japanese market, successfully developed their co-branded car 'Maruti Suzuki' for the Indian market. While the cars in the West focused on the latest technology and gizmos, such as high speed, automatic transmission, ABS brakes, superior quality sound system, cushy rides, and the like, Maruti provided a basic car which provided simple mechanized transportation from point A to B at a introductory car price that was less than one-fifth of the price of a typical entry level car in the West. This pricing of the car made it immediately affordable to a much larger population, compared to the less than one per cent who could afford a car before the Maruti was introduced. While still largely in a two-wheeler market, Maruti has maintained a 50-60 per cent market share over the past two decades. The launch of the Nano by Tata in 2009, has again revolutionized the concept of automobiles. By introducing a car for less than \$2000, or close to the cost of a motorcycle in India, the Nano is now within the affordability range of a market segment that is five times the current market size of the Maruti.

Organizations need to think local, harness the local knowledge and mould their global knowledge and expertise to localize products and services that are highly focused and targeted at the local market. Localization of a product or service will often provide a company with clues to what it can use globally. We earlier talked about how McDonald's realized the valued of local menus for a particular market after it came to India. Having tasted success with this formula, McDonald's now routinely customizes it

menu in different markets to meet local taste requirements. The business architecture, therefore, comprises serving multiple local markets within a global concept, i.e., the overall product branding and identity looks and feels the same, but the costing, pricing, packaging, and recipes are localized for a specific market.

PepsiCo launched a super successful product Nimbooz, derived from the *Nimbu Pani* (a natural lemon drink) in India, in the summer of 2009. This illustrates a sound understanding of the local market and then innovating to capitalize on it. *Nimbu Pani* or '*Shikanji*' is a very popular summer drink in homes all over India where people simply squeeze a fresh lime in iced water and add sugar and salt to taste. PepsiCo's expertise in marketing, branding and manufacturing of the product made it a runaway success, to a point that there are often stock-outs in the market. And, let us not forget, Nimbooz does have real lime juice as one of the ingredients. As lifestyles change in India and people have less discretionary time, packaged products that closely resemble what people are used to will no doubt succeed.

Localization goes hand in glove with innovation for a high GI.

LEADERSHIP AND OBJECTIVES

The leadership team of an organization works on a model of trust and relationship, and often within close proximity of each other. In a global world, the traditional corporate headquarters is an obsolete concept. No company can be successful globally by keeping all its brilliance at its headquarters, and making decisions for the entire company, centrally. In fact, companies need to transpose themselves into trans-nationals, i.e., not tied to any specific country, be able to cross many a geographical boundary and maintain a local flavor, which is consistent with an overall global touch and feel. Leadership needs to be dispersed globally. While companies many initially transfer knowledge to leaders in newer markets, they are increasingly finding it is best to have the local operations governed through a local leader. This is because a local leader is much better connected within the community, business circles, industry and government and has a much better understanding of how to manage within the local culture. This local knowledge and expertise is essential for success in a far away land. Concatenation of knowledge from a number of such markets, would in turn, provide a collective pool of global knowledge that the company can harness for global excellence.

Leadership team and its objectives go together. Finance, strategic planning, branding, marketing and selling are all important functions

that must be carefully managed to meet the corporate objectives. Within a global context, these functions will be more effectively performed when done so at the local level. Therefore, for companies to have a high GI, they need to provide a framework and give enough flexibility so that each local leadership team can respond quickly by making their own decisions rather than waiting for someone from corporate to make the decisions, someone who is, by and large, distant and disconnected with the specific local operation. To implement such a program, a company need only set revenue, profit and customer satisfaction targets, and let the local leaders decide the details of which products to offer within a market, how they should be customized and sold and the local practices required to make things successful, while operating within the guardrails of protecting and furthering the brand image the company is trying to project globally.

SUMMARY OF KEY THEMES

- 1. While one can come up with a very large number of parameters to measure global success, we have developed a comprehensive Global Index (GI) that contains only eight parameters.
- 2. These eight factors can be laid out on a radar chart reflecting diametrically opposite and interrelated factors, i.e., four primary factors and the four associated causal factors that can be directly impact the outcome of the primary factors.
- 3. The Primary Factors of GI are:
 - (a) Revenue (Markets)
 - (b) Processes
 - (c) Innovation
 - (d) Leadership
- 4. The Causal Factors are:
 - (a) Human Capital
 - (b) Metrics
 - (c) Localization
 - (d) Objectives
- These factors present a balanced measure for global effectiveness. Companies can examine their current footprint and implement specific strategies to expand their footprint and achieve an optimal, global competitiveness positioning.

FIVE

Global Value Webs

Globalization requires us to reinvent everything—to think of ourselves as compared to others...

Nicolas Sarkozy, President of France

VARIOUS MODELS OF COMPETITIVE advantage have been proposed by analysts and strategy experts over the last two decades. Michael Porters' Competitive Advantage of Nations is quite well-known. These models provide an insight into how either a particular company or a country achieves a competitive advantage. Usually, companies can achieve advantage by access to knowledge, technology, land, human capital and the specific relationships they are able to achieve with suppliers and finally with their customers. Countries with larger resources, better technologies and larger markets and population bases automatically have a greater advantage over others. However, our thesis is not based on a specific company or country achieving excellence, rather it is designed to respond to competitiveness and winning at a global level. A specific country is no longer relevant in this discussion since this is not about playing and winning in one country, but playing and winning globally. Playing and winning is about leveraging technologies, resources, expertise, capabilities, suppliers and buyers everywhere. It is about composing your products and services from the global pool and then customizing them to individual markets. We will discuss how companies of all sizes from any country can find their place in the sun, and position themselves to compete effectively within a global play.

THINK BEYOND JUST PHYSICAL CLUSTERS!

We have to move far beyond simple value chain integration of a few suppliers and distributors. When thinking internationally, the world is our playing field, and we have to think of global value chains and systems. Competing at the global level has led to the rise of Global Value Webs or GVWs, which go far beyond what simple supply chain integration provides. We need to move past the basis of competition and passive clusters of productivity within a nation. Instead, we need to think of dynamic clusters that are not limited to any geographic or country. We can no longer think of being competitive within a country, but how we can be competitive globally. Companies will shift resources to where it makes them most competitive, globally, both to serve their current home markets and the new ones that emerge.

Countries will continue to protect key technologies and knowhow and will even put specific legislation to protect exports. It is not likely that France will yield its knowledge and expertise in perfumes or someone will challenge it in this industry in the near future. Similarly, it also not likely that Germany will yield its lead in high-performance luxury cars or the US in computer chips, medicine and many other technologies. However, in order to be effective globally, highly capable companies from various countries will continue to look for opportunities to harness global resource pools for expertise and cost reduction. While there is no doubt that Intel can design, engineer and produce all its logic chips in the US for the world market, as they did in the 1980s and 1990s, they will no longer continue to have a dominant position if they do so today. Expertise in a particular technology is not sufficient for success. The end product has to also be sold in the market at a profit so that the company can continue to invest in and further enhance its technologies and maintain industry leadership. While companies such as Intel closely protect their core competencies in their home countries, they nevertheless componentize portions of their work and source it from lower cost locations. As an example, Intel today has 70 per cent of its workforce outside the US and does large portions of its chip design in centers in India and China, which are all managed from their offices in Santa Clara in the US. This gives them a lower cost structure, but the entire chip design expertise is effectively resident in the US.

No doubt over time, there will be a diffusion of knowledge to other parts of the world. Country boundaries will increasingly become more and more irrelevant in a truly global and interconnected economy. Each country will continually adjust its position based on the capability that is most effective at that time. Companies will, over time, convert from multinationals to trans-nationals irrespective of where they headquartered or what work is done in which country. The only thing that will matter is how they can best position themselves globally to provide valued products to customers and the highest returns to their investors.

STRATEGIES FOR NATIONS

While we do not intend to dwell on competitiveness of nations, but rather on the competitiveness of companies and individuals, we will nevertheless summarize our thoughts in the next few paragraphs on key features of the Global Value Web phenomenon. There have been many categorizations of countries from 'haves' to 'have-nots' and 'developed' to 'developing'. We will, however, use a fundamentally different categorization that is relevant to the discussion on positioning and winning in the global landscape. Table 5.1 shows a summary of the nations classified in four different categories based on their distinctive broad-based competitive positions. We will describe the GVW implications and broad-based strategies that each of these nations needs to consider in the 21st century.

Categorization	Countries	What they have	What they don't have
Capital and knowledge-rich	G7	Technology Install base of industries Knowledge and expertise Capital Robust infrastructure	Significant market reach outside Reasonably priced labor
Natural resource-rich	OPEC, Russia, Indonesia, South Africa	Oil Specialty metals, minerals	Expertise Human capital
Human capital-rich	India, China	Strong educational systems Large low price knowledgeable human capital in all areas	Capital Robust infrastructures Global market reach
All other with select riches	SE Asia, select African	Lumber Minerals and special materials (diamonds) Tourism	Capital Market and customer reach Knowledge and expertise

Table 5.1: Competitive positioning of countrie	able 5.1:	Competitive	positioning	of co	untrie
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Strategies for the G7 and Other Developed Nations

Undoubtedly, the G7 nations lead the world through their knowledge of cutting edge technologies and their adoption. Several leading research institutions have deep roots in these countries and these countries have the capital and infrastructure for investing and nurturing technology development in all fields including computers, electronics, transportation, health care and advanced weaponry systems. These countries have a large installed base of industries, associated knowledge and expertise that made them leaders of the world. They also possess robust infrastructures for transportation and telecommunications built over the past 100 years alongwith huge reserves of capital for investment.

Despite all these advantages, they lack significant market reach outside their home countries. Most of these countries have high cost of labor, which makes their products prohibitively expensive in emerging markets. Over time the high cost of labor, coupled with visa restrictions would result in shortage of human capital to drive growth.

What should they do?

GVWs give a unique opportunity for these developed G7 nations to harness their decades of leadership by expanding their global presence in emerging markets. They, however, need to re-price their goods and services using purchasing power parity index (PPP) factors in newer markets. So when Coke launches its 200 ml bottle in India it does not price it at 60 cents or Rupees 30, but does so at Rupees 7 so that it will be able to attract customers who have much lower incomes. Similarly, SAP and Oracle who initially were unable to penetrate the Indian market with their high priced software, later readjusted their pricing to reflect PPP realities, often discounting their software by 90 per cent before sales took off!

Finally, participants from these countries should rapidly enter new markets with local partners who know the local nuances. This can accelerate their induction and success within the local markets before a local competitor makes it impossible for them to enter. Learning may be taken from the case of Starbucks which waited too long to enter lucrative markets such as India because of pricing factors, while local innovators took over the market by providing a similar overall experience of taste, quality and service, all at 75 cents per cup as against \$4!

Strategies for Natural Resource Rich Countries Such as OPEC

For several decades, these countries have been squandering the natural bounties bestowed on them by mother earth, at times lavishly, on the whims of the handful of the minority who ruled. With the exception of Russia, these countries lack the expertise and human capital to manage the abundance of these resources. They have to rely on the expertise of MNCs from the G7 and cheap labor from the Asian countries to fuel their economies. Ironically, they borrow the knowhow and the labor to supply these very nations with the much sought after resource, oil!

While we cannot possibly come up with prescriptions for all scenarios, there are a few things these countries can do as their precious resources get depleted. They need to utilize the money generated from their national resources to improve the capability and attractiveness of their nations for other ventures such as tourism, trade, real estate or core infrastructure. Also, in case of the oil-rich countries, they ought to figure out how their resource depletion can be slowed down. While, more and more oil is continually being found, the appetite for it is also growing globally. As nations are becoming richer there is a greater demand for more energy, particularly petrol to fuel the rapidly growing automobile base. Global oil resources are expected to last for 42 years, though this situation has been constant for the past 50 years, since more oil is continually being found. However, Saudi Arabia has now taken the lead to develop a substitute by harnessing the power of the Sun. Just as it is blessed with oil, it is also blessed with sunshine over its vast desert landscape. It is investing in infrastructure for harnessing solar power with hope of some day transporting the solar powered electricity that is generates to Europe and Africa. If successful, this will certainly slow down the depletion of their resources and provide another source of income through sustainable energy, one that is likely to outlast all humanity!

Strategies for Human Capital Rich Nations Such as India and China

These populous nations, which amongst themselves account for nearly 40 per cent of the world population but were once touted as the hunger bowl of the world, have surprisingly emerged as the potential saviours of the world from economic disaster. Slowly and assiduously, they have developed their human capital through strong educational systems and created a large, almost inexhaustible pool of low priced human capital that can be harnessed for all kinds of activities from labor intensive manufacturing to solving the most complex engineering, scientific and medical problems.

While China has built its wealth in the past 20 years and invested heavily in infrastructure, both these countries, in general, are still relatively underdeveloped as regards their overall infrastructure and human well being because they lack the capital necessary to create an environment that can generate wealth, as in the West. While these countries may have large foreign exchange reserves, they nevertheless continue to borrow money from the World Bank at preferred rates to help them develop and equip their economies for the future. Besides capital, they also lack the ability, knowledge and expertise to reach the global markets, without which they would continue to only be a sourcing destination by way of labor arbitrage. So, when the economic meltdown occurred, these countries were greatly impacted. Thousands of jobs were being lost in China and India, as demands for goods and associated outsourced services that supported them declined in the developed and major consuming part of the world.

Human capital-rich countries must attract FDI to meet their capital needs. In addition these countries by themselves have large potential markets where global players want to and can expand their revenues. These countries also need to build up world-class infrastructure to promote rapid growth of business development. Externally, they need to work on expanding the reach of their products and services into the G7 and the rest of the world. While every country needs to protect itself from colonialism or outright dependency on another country, most foreign companies find it an arduous task to traverse the regulations and other barriers while entering a new country. Governments of these nations can well learn from Singapore that has dramatically reduced entry barriers and welcome companies by providing them with various incentives such as preferential tax treatment and support from the government office. Reduction of entry barriers could dramatically increase the FDI in these countries, and bring the expertise in science and technology that these countries desperately need to improve the overall quality of life for their masses.

Strategies for all Other Nations Including those with Select Riches

There are other natural resource-rich countries in South East Asia, such as Malaysia, which is lumber rich, and several in Africa, such as South Africa, that are rich in minerals and these provide rare materials for the world economy. Some other countries are so naturally endowed that they have become popular tourism destinations. These include Mauritius and Thailand. While they are wealthy in these unique products, as nations they are not wealthy by any stretch of imagination. These countries also lack the capital they desperately need to develop their travel hot spots or acquire advanced mining, cutting and transportation technologies so they can make their products more easily available and more appealing to the rest of the world. They also need better global markets, customer reach and access to key knowledge and expertise in order to attract partners who can bring in technology and capital to further harness their resources of minerals and other riches. They cannot afford to live in isolation while their bountiful natural resources go unexploited.

EMERGENCE OF VALUE MOSAICS

By far, the USA is the undisputed epitome of a successful country, leading the world since the end of 19th century. This great nation is powerful, professional in its approach, peaceful to live in, ensures parity amongst its citizens and acts as an example for the rest of the world—a beacon of freedom, prosperity and justice for all. Despite the recent financial meltdown, it is still looked upto as the one that will pull the world out of this crisis. This country has enormous resources in just about any area, including raw materials, rare minerals, massive fertile lands for agriculture, abundant fresh water, technology, human capital and economic and military power. The United States is the single most influential country, and despite its current problems, will no doubt lead the way out of this global economic crisis.

The plurality principle of America as a country and its success and leadership of centuries provides clues to specific strategies that companies can undertake to be successful in the global economy. The US has over time harnessed the riches of the world, both mineral and human, and put together leading technology products and services that are demanded by all. This has resulted in enormous prosperity for this nation. Limiting our discussion to business pursuits, the US has weaved a complex global web that allows them to attract the best minds, tap into the large markets of the world and access to the latest technologies and products from around the world.

Assembling innovative and unique value propositions is key to winning in the global economy. The debate now is only focused on how we get there.

The US always embraced people from distance lands who infused their cultures to enrich the American system. Both the US government and all companies are vigorously pursuing diversity and multiculturalism. This is no longer simply an assimilation of all cultures into one large "melting pot" metaphor, but into preserving the individuality of each culture in a "mosaic", where each individual color and hue is preserved for its own identity and distinctiveness, adding to the polychromatic nature of the system. Simply put, it means mixtures of various ingredients that keep their individual characteristics. The ability to manage mosaics provides the ability to build specific individualized products and services for a customer, which will outshine a flat singular mass-produced value proposition. Diversity such as this can provide great benefits, since within it are the nuances and requirements of different ethnic groups and regions, and it is only through this appreciation and understanding that can one develop products and services that can be effectively targeted for everyone in the world. Winning in the global economy demands that businesses assemble the unique value creating elements from across countries and companies that specialize in them, and then deliver them at the best cost and value proposition. Such global orchestration is difficult for others to copy and can provide a strategic business advantage over long time periods.

Create a Unique Value Mosaic

Prior to the onset of global value webs, the value chains of most companies were mostly localized with most of the functions being performed within the company. In addition, most of the activities from engineering, production to delivery and sales were all performed close to the customer, often within the bounds of a single country. Companies focused on optimizing and streamlining processes, which were a combination of manually intensive processes that leveraged IT.

As we mentioned earlier, in the era of outsourcing and globalization, the value chains have been systematically disaggregated to allow for optimization of individual components. Advanced computer technology and information systems allow the integration of these piece parts across companies and geographic boundaries. Reaggregation and reassembly of value then enables companies to optimize their operations and provide unique value propositions to their customers.

While the above approach has served most companies well in the past, we do not believe this will serve them well in the future. There is a clear dichotomy between the objectives of companies and their final customers. Companies attempt to maximize their profits through cost management, which promotes mass production and reduction in variety in the system. Customers, on the other hand, want products personalized or individualized to their specific needs and while it may have a functionality similar to that of their neighbor, they do not want it to be identical. Simply put, customers are demanding more variety and do not want the mass-produced Ford Model Ts, which are available in every color known as black! Herein lies the challenge for companies that want to succeed globally.

While their products are hot and in demand globally, companies such as BMW, Mercedes and Apple are missing huge markets. In most cases these products are aimed at the premier segment. Yes, there will be enough buyers for their products in emerging markets, but their share will nevertheless be a mere one per cent or two per cent in these very large, populous markets. Perhaps they are happy with only gaining one per cent to two per cent share in these large markets. However, they are leaving vast segments of these markets untapped. Not every BMW costs \$100,000. They also have products in the range of \$30,000. There is nothing that prevents

them from making a car for \$15,000 but still having all the appeal and brand attributes of its more expensive cousin. Just as some of these premier players are leaving a vast lower-priced segment untouched, similarly there are others who are not touching the very wealthy customers in the upper segment. We were recently provided with a very insightful observation that Apple's iPhone has somewhat limited appeal among the wealthier people in Asia. As we got into the details, we found that the societies in Asia are very status conscious and when these wealthy individuals pull out their watches, or cell phones they want them to be observed as different enough to give them bragging rights. An iPhone, through pretty slick from a functionality standpoint, is still the same mass-produced iPhone that everyone has. How can mine be different from the next consumer's?

Innovate at the Value Web Level

Providing unique and custom solutions requires companies to perfect mass customization approaches, which permit smaller batch runs and greater variety at close to the cost of the mass-produced products. In addition, the ability to provide differentiation and targeting based on regional and country differences, requires the company to extend beyond mass customization to flexible value mosaics that allows an assembly of a myriad different designs, colors and patterns far beyond what mass customization makes possible. In the auto business, manufacturers provide only a limited variety of cars even though they may claim all their permutations and combinations of colors, models and options to be in the thousands. However, the auto accessory business is huge. Go to a comprehensive auto accessory shop and they have hundreds of treatments for seats, hundreds of sporty wheels, detailing strips and body painting, and stereo and video options, including mini-satellite dish TVs. There are more than a million different things they can do to a single car. This obviously raises the question: Why are auto companies and their dealerships not able to put together this extended value chain and capture the value from the customers? Business focus could be an argument, but it is not enough. Yes, composition of such value was expensive and perhaps impossible to do profitably in the past when volumes were low and management gurus promoted 'stick with your knitting' philosophy. However, such large businesses, which are part of the overall value mosaic of the auto industry, can now no longer be ignored by anyone.

Assembling value mosaics no longer implies that a company has to own all the resources. It can put together the value proposition through virtual interconnections and provide a seamless integrated value to the final customer. Just as the 1990s was the age of the value chains, we believe the age of value mosaics is now here. We have the advantage of technology that enables such interconnectivity. Unlike value chains that have the connotation of hard-wiring and were relatively static, value mosaics on the other hand, will be relatively dynamic in nature and the partners will change every now and then to make way for a more colorful player. Just as in mosaics, the true beauty is in the whole and not just the part, so also will the value of business value mosaics be in its totality and not in an individual part. Value mosaics also imply shifting of final assembly and customization as close to the customer as possible.

The PC industry has shifted from a few fixed models popularized by Dell, which pushed through large volumes at low cost. Today, every PC manufacturer lets you custom assemble your PC from a wide range of choices of processor speed, memory, disk, media devices, screen size and resolution, and cabinetry color which can be delivered to you in less than a week. A model of five mass-produced PCs that meet requirements of virtually all customers is no longer valid. Custom assemblers or individuals who are willing to assemble the PCs themselves are able to push this even further. More than half of PCs sold in developing countries are assembled in small shops where a customer can pick and choose their processer speeds and disks, etc., and have it custom assembled and delivered to their homes in less than four hours at less than half the price of an international brand PC! In summary, the PC industry has transformed into a complex global value web, which allows highly customized systems. Since there are many innovators in the industry including custom shops, it is likely that the number of players will remain high and so will the innovation. This is certainly what will continue to challenge the bigger, more able players on how they can promote their brand and effectively capture more value.

INDUSTRY PROGRESSION AND EMERGENCE OF GLOBAL VALUE WEBS

With technology development, industries have gone through several transitions in the way they design, produce and finally sell their products. Similarly, customers and consumers have increasingly become more selective in their demands as their choice increased from several providers. As a result, the basis of competition has progressively gone through the transformation from:

- Cost-based competition
- Value-based competition
- Competence-based competition
- Global Index-based competition

FIGURE 5.1



Industry progression along the value chain

The figure above shows additional details for each of these bases of competition. As a result of these transformations from cost to global footprints, Global Value Webs have emerged. As the model depicts, companies need to execute correctly with balanced processes, technology, leadership and organization that is consistent with the basis of competition. As value increases towards the right on the model, so too does the sophistication of all the four elements of process, technology, leadership and organization.

Competing on Cost

Companies competing on this dimension offer products and services where the primary differentiator is the selling price. Products here are often available from several manufacturers and essentially have all of the same functionality and utility attributes. Examples include cement, paper, and even more advanced products such as personal computers. Since the primary differentiator is price, companies focus their efforts in managing and minimizing costs along every element of the value chain.

Historically, in cost-based competition, companies have achieved scale around stable products with low variety, permitting large economies-ofscale production. In addition, they have aggressively managed physical assets such as plant and machinery and inventory in the system. Since this model is based on stability and low change, it has increasingly come under attack as customer tastes are changing and they are demanding variety, personalization and customization. In order to provide both flexibility and scale, companies are looking at ways to do mass customization and are investing in flexible production systems. By disaggregating and analyzing the value chain, companies are increasingly sourcing many portions of the value chain from other tier 1, tier 2 and tier 3 suppliers, thereby reducing their capital risk, increasing flexibility and maneuverability.

Components of the value chain that are candidates for sourcing for cost reduction are all non-core and non-production related, such as logistics, IT, finance and payroll systems. In addition, companies are moving from sourcing basic components to completely manufactured sub-assemblies that can simply be dropped into the final product.

Value Based Competition

As Theodore Levitt observed in his landmark Harvard Business Review article, *Marketing Myopia*, 'you can differentiate anything'. Companies have continually tried to differentiate their products in the quest of achieving greater brand recognition, market share and associated profit margins. This is well illustrated by the example of the simple, boring, rubbertopped pencil in yellow paint. In the past, children had just a few of these pencils in their school box. Over time, creative marketers added color, gizmos, cartoon characters and other psychedelics, resulting in continual differentiation, variety and value in the eyes of the consumer. Today, a child typically has dozens of different pencils in his/her drawers.

Along the lines of differentiating the simple yellow pencil, companies try to continually augment and differentiate their products along such attributes as:

- Higher quality, durability and functionality.
- Faster delivery and easier to setup and maintain.
- Easier to do business in terms of buying and servicing of the product or offering.
- Personalization or customization to meet specific customer requirements.

While price is still important, attributes such as quality, timeliness, service quality, customization, etc., create measurable and differentiated value in the minds of the customer, because of which, they are often willing to pay more compared to a commodity-like product offering. In this case, companies can usually create a unique position, based on a combination

of the value attributes and defend their position even against firms with very deep pockets.

Companies usually create this unique position by managing the differentiating aspects within the value spectrum. There is an increased effort in product design, customization and speed to market, customer reach and intimacy and brand management. In fact, the entire manufacturing can be sourced from another provider. Sony's VAIO laptops illustrate how a differentiated product can command its own premium in a specific niche in the cut-throat laptop industry. Sony has integrated some of its expertise in electronics such as sound and overall product value into the VAIO, making it a better machine with superior audio-visual capabilities and a soft-touch keypad. This has resulted in a clearly differentiated product, while at the core, all the key components such as the chip set, hard disk, memory, power supplies, etc., are sourced from traditional mass producers. Sony, however, manages the design, key value enhancing audio-visual components of the device, overall brand management and differentiation. What is more important than mass production is flexible scale where Sony can rapidly change models through small production runs, a technique which they have already perfected in the much faster moving consumer electronics industry.

Competence Based Competition

Companies can often leverage their distinctive competence or capabilities to create a highly differentiated position in the marketplace-a position that is not easily duplicable. By continually leveraging this capability and continual product and brand enhancement, companies can attain and maintain a distinguished position indefinitely. Apple is a master at imagination, and by integrating it skillfully in hardware and software, has created products that have changed the industry, staying ahead of customer's imagination. From the early days of the Apple computer in the late 1970s that ushered in the world of the personal computer, to the Macintosh that resulted in user friendly low cost personal computers, the iPod that changed the portable music entertainment and the entire music industry, and the current iPhone, which provides an unmatched platform for integrating communications, entertainment and business applications into a slick mobile device, Apple products have been the envy of many a competitor. Its unique positioning is achieved through some of the following ways:

 Technology or know-how that is protected through patents or planned obsolescence.

- Organizational knowledge or competence that is congealed into the product making it an essential part of the product.
- Non-duplicable combination of knowledge, expertise, technology and other resources such as production, delivery and distribution that are distinctive and further enhance the product.

Competencies, if applied creatively and imaginatively can open floodgates of other opportunities for companies that they can further leverage through economies of scope by leveraging the same capabilities or channels for selling a whole range of products. Apple, for instance, successfully designs and extends its MacBook, iPod and iPhone to leverage common operating systems, similar look and feel and the same retail channels in order to drive additional sales of accessories and iTunes purchases of music and applications.

When competing on competence, companies need to focus on and protect distinctive capabilities, which usually are in the area of unique technologies or formulations, design and engineering. Most of the other capabilities such as manufacturing, distribution and retailing can be outsourced.

As we noted in Chapter 1, none of the above three models are sufficient for success within a global context. This has led to an emergence of a global operating model, which few, if any, have figured out how to execute effectively. This brings us to our fourth global operating model.

Competing on High Global Index

Nokia makes phones for many different market segments based on price, consumer appeal and affordability, depending on the market, which extends from high-end G7 markets to price sensitive markets on the Indian sub-continent and Africa. This localization and positioning to meet specific market requirements, gives Nokia an edge on competition and ability to sustain success over the long-term in the global marketplace. Similarly, Coca Cola, Pepsi, Nestle and Kellogg's also innovate, localize and appear genuinely local to the consumer. These companies have the right positioning on all the dimensions of the Global Index and are positioned for long-term success in their global markets. By contrast, the US airlines, auto companies and many consumer product companies focused only on their home markets, and at best, the G7, and now their fortunes have faded. These companies are now being locked out of the lucrative growth markets since they neither have much knowledge of these markets, nor do they now have the money to invest in them to succeed.

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However, all is not lost for companies whose fortunes may have changed. There is a way out of for them. Once they have resolved their current financial issues, they can once again stretch their wings, perhaps buoyed a little by resourceful local partners, many of who will be only too glad to partner with them. These companies still have the knowledge, expertise, technology and many other elements required to succeed. Regardless of their current positioning, whether good or bad, we will explore in detail the winning global formula in the Chapter 9.

In summary, the way companies produce value along each value progression and the results they can ultimately derive are summarized in Figure 5.2 below.

FIGURE 5.2





Just as we have described the model for the basis of competition, so will we describe the various global models in the next section. We have treated the technology section in quite a bit of detail in Chapters 3 to 5. We will discuss the details of Process Focus areas in Chapter 10 and Leadership and Organization in Chapter 12, for each of the successful global operating models.

GLOBAL MODELS

Depending on the industry and a company's own resource and strategic intent, different global operating models are beginning to emerge. We have observed four major types of current global operating models, which are summarized in Table 5.2.

GLOBAL VALUE MOSAICS

Let us examine the principles of value creation across each of the global operating models shown in table 5.2. We will examine how they are able to, or need to create a value mosaic to continuously innovate and refine their value propositions to survive and grow.

• Global capabilities within the corporation—Large players, typically within the Global 500 such as IBM, Coca Cola, Accenture etc. create global capabilities within their companies. Whether they operate using a multinational philosophy, a multi-local philosophy or a globally integrated enterprise approach, their value mosaic is truly dispersed within the boundaries of the corporation. So when Coca Cola decided to push into Africa, the new growth market for its beverage, it set up a research lab, lauded as its most technologically advanced, globally, situated at Gauteng¹, South Africa. This will test Coca Cola products from 162 bottlers in 56 African countries and territories on a monthly basis to make sure that their quality is at par with products from New York, Paris, or London. Learning from the complexities of a very diverse African continent, Coca Cola also plans to set up similar labs in Belgium, China, Mexico and the US.

These corporations create resource bases close to the markets in countries they operate in and then leverage their global processes to optimize costs and resources. This also means that they have to make large investments in systems, human capital and training. Keeping 'all within their control' philosophy also has its flip side. These giants cannot operate easily beyond what they control and are not able to leverage the other mosaic pieces that can form a unique and different picture. As a result, their entry into new markets is slow, for if they are unsuccessful, withdrawal from failed

¹ Gauteng is the smallest of South Africa's nine provinces covering only 1.4 per cent of the country's total land area but contributing to 33.9 per cent of its GDP (http://en.wikipedia.org/wiki/Gauteng).

What they don't have	Cannot operate easily beyond what they control. Entry into new markets is slow, and if they have to withdraw from a market, it is very expensive. Flexibility is low, since investments are large and over time the model is set up to achieve scale and promote status quo.	Lack of capital to extend into many markets simultaneously. Local market knowledge t. is low; works with a local partner. Unproven track record of international growth management in new markets or international brand recognition, even though they may be very strong in their current markets.	Low brand recognition or market reach to big customers, but can address SMB market which is price-sensitive and cannot be serviced by the big players who seek price premiums.	Though successful in their home turf, many such companies have a narrow product range, incomplete product line and have no presence outside their domestic market, the only market they are comfortable participating in.
What they do	Provide Capital: - Resource base in countries they operate in; - Global processes; - They optimize costs and resources; - Large investments in systems and human capital (training).	Find local well recognized partners and link capabilities, but the partner cannot itself be a competitor because competencies are different Leverage local brand, market knowledge, logistics and distribution of local partner, with knowledge and expertise in specific segment of global participant.	Interconnect capability globally and dynamically on project basis and accomplish marginal costing approaches to deliver new capability.	Manage brand excellence. Access to quality manufacturing. Good local market logistics and distribution. Product and line extensions and related fields that link through the value of newer products.
Typical participants	Global 1000—IBM, Coca Cola, Accenture, Toyota, etc.	Global 1000 who have big brands but not enough understanding of newer markets— Walmart/Airtel; Those who are managing risk and looking for rapid global footprint	Small or individual players who are highly networked	Locally entrenched players with big brand recognition who can sell almost any product (Conglomerates, e.g., Samsung, LG, Godrej)
Categorization	Global capabilities within company— Multinational or Globally integrated	Linked Global capabilities among large players	Virtual interconnections	Reverse Global model

Table 5.2:Global operating models

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markets is very expensive, just as Walmart found out from its failed South Korean and German expansions. After having committed large investments to promote scale operations, they over time lose flexibility and promote the status quo model leaving the door wide open to an innovative competitor.

• Linked global capabilities among large players—Linking across the regions and countries is another major model that is finding many subscribers since the capital requirements in this model are much lower than in the first model described above. These companies are often as large, but lack enough understanding of the newer markets in which they want to participate. The approach adopted by these players is to manage risk and look for expanding rapid global footprint through collaborations with locally strong players. As an example, for its expansion into India, Walmart tied up with the telecom behemoth Bharti to further its cash and carry business and gain access to the consumer knowledge that Bharti has with its over 100 million customers. Honda deployed similar principles twenty years ago when they tied up with the Hero group for its two wheelers to become the largest selling motorcycle in India that integrates technology and pizzazz of Honda with the low cost manufacturing resources of Hero.

The creation of value mosaic by such players who are able to find well-recognized local players is an important process. While they link capabilities, they do it in a manner such that the other partner cannot in itself be a competitor. Each partner brings a different set of competencies to the table. Bharti is a telecom player that knows how to manage retail customers and thus is a suitable partner for Walmart which knows how to buy from global suppliers and deliver products through a highly interwoven and optimized logistics chain. This collaboration allows the leverage of a powerful local brand and the customer reach of Bharti Airtel with the purchasing power, logistics and retailing expertise of Walmart. Together, they can channelize their expertise to set-up the optimized value proposition for the Indian market. Both these companies are in the hope that this model will the hit the mark, unlike the miscues in the South Korean and German markets.

It can easily be seen that creation of such value mosaics is limited by the ability to raise enough capital to extend into many markets, simultaneously. Companies need to have a disciplined orientation for global expansion and should not extend themselves beyond what they can effectively manage. A systematic expansion strategy

also provides the benefit of additional learning that can be leveraged as the company continues to expand in newer markets.

• Virtual interconnections—This model of value mosaic creation fits the bill for small companies and individuals who do not have the resources of much larger corporations. These companies operate frugally and creatively with all decisions being made by a few individuals who themselves might be the owners of their small companies. These individuals are highly networked, flexible in their orientation, and through virtual interconnections can tap expertise from global pools and serve global markets. These firms interconnect capability globally and dynamically on a project basis and accomplish marginal costing approaches to deliver new capability. Thousands of firms and well-connected individuals operate under this model through a network of people, agents and small companies littered across the world. Textiles, fashion, hospitality and IT companies beyond the Big 10 are big adherents to this model.

This model is extremely effective in terms of costing, pricing and speed. However, it has one major disadvantage which is difficult to overcome. Since most of the players in this value web are small, they do not have any single brand around which they can corral all their resources. However, what they sacrifice in terms of a brand, is more than made up by their cost position, creativity, innovation and the diversity of their value mosaic. This model does not need the corporate qualification or financial and legal approval of partners as in larger corporations. If you find someone with the capability, you can quickly assemble them into the value web through an agreement that can be as simple as a handshake. This model works every effectively in the price sensitive SMB market and with local governments, all of whom have much lower affordability than the larger corporations, and need the work done yet cannot afford the price premiums that larger companies charge. In fact, larger companies are unwilling to do work with the smaller companies since they cannot profitably serve companies who are not willing to spend a million dollar or more, something that many of these companies do not have. We have seen that larger companies put smaller companies through so much credit checking that one wonders whether it is worth the hassle for these smaller companies to buy services from larger companies.

While we are quite familiar with the Big 10 consulting and IT services companies, few know that the world consists of over

100,000 smaller consulting companies that range from a single owner operator to those with over a 1000 people. In fact, their combined revenue is more than the revenue of the larger players put together. This phenomenon exists in every industry. In the hospitality industry, there are hotels tied to the 10 largest global chains, which typically charge 30 per cent fee for their reservations. However, thousands of smaller hotels exist which either do not meet the standards of these chains, or are unwilling to pay the reservation premium these chains charge, but are nevertheless highly successful and are more often than not completely reserved. We should also point out that a large company is not the ultimate provider of products and offerings; they are simply more visible and ubiquitous. Connoisseurs know that the best chocolatiers and restaurants are small, individual owned establishments, and so are several hotels. cars, clothing and luxury goods companies, where the ultimate products are available only through custom houses or boutiques that make very limited amounts of these unique products. This is much like the great painters of yore who painted only a few highly prized masterpieces and didn't stamp them out in printing presses.

• Reverse Global model—In this model, local companies have a big brand recognition and can sell almost any product or service they can get their hands on. However, many of these companies do not have a rich portfolio, nor do they have any presence outside their home base. When Sara-lee wanted to extend its market reach in India, it looked up to Godrej², set up a joint venture to market its household products. Godrej with a century long presence in India is a household name with enormous brand recognition with a housewife for requirements that extend from the kitchen to the living room and to security in the house. Whether it is a steel wardrobe, a fridge, soaps and toiletries, furniture, or the lock she puts on the door while going out for shopping, she trusts Godrej!

This is a highly successful model where a global player is trying to reach a new market with a successful local player, but does not have the resources to do so by itself. The objectives of both the partners, in this case, are convergent since one needs the customers they don't have while the other doesn't have the products their customers want. The local brand leader manages brand excellence, has access to quality manufacturing and full knowledge of local

² Godrej has since acquired the stake of Sara lee in this JV, http://in.reuters. com/article/companyNews/idINBOM14348120070702.

market logistics and distribution networks. So, within this value mosaic, it is easy to enable product and line extensions in related fields by linking products and services from another player.

However, companies such as Godrej can only operate locally since they do not have access to and brand recognition in markets outside their own. As an example, Masterlock is able to co-brand its products with Godrej in India. However, Godrej does not have any presence outside India. So Masterlock will have to find another partner in another country. Similarly, Godrej has no ability to extend into another market since they have no recognition outside their home turf and will have to fight entrenched incumbents in new markets, a fight which is likely to be totally futile. This is a great model for companies with superior brands and technologies that want to extend their products globally. They need to find the right local partner who is hungry to push their products.

All these four categories of firms have created different models for assembling and delivering the value elements. Process models are unique in each of these structures. But, are the current operating models mature enough to provide a winning capability? The answer to this question can be found by analyzing their Global Index in Chapter 6. We will examine all these models in detail in Chapter 9, analyze their shortcomings, if any, and what they need to do to win in the global economy.

THE WINNING FORMULA: IMAGINATION AND SERVICE

In line with our earlier postulation, a true global enterprise is the one that provides the best value at lowest cost to customers wherever they are. A truly successful global model within our definition is not one of hegemony of few market leaders who form cartels of sorts and create an "organization" of the Mafioso variety. Nor it is a country club of disparate forms who are jointly bidding for a project only to compete against each other in the next one. In both cases, the sustainability will be highly challenged as it is bereft of any principled thinking towards value creation, delivery or its ongoing management.

We just discovered that a true global player has to have a balanced approach towards multiple process dimensions. All these categories of firms have to participate across geographies and build abilities to increasingly tie together business processes that can be managed electronically and globally. Unless they do this, they will not be able to tap the emerging markets, or create the global value webs or value mosaics that will help them capture the imagination of the customers they serve. Business is about more than managing short-term profit. To be sustainable one has to continually delight the customer to a point where one actually captures their imagination. Whenever a customer thinks of a product or service you offer, they only think of you. While people may use various search engines for finding information, Google is always on their minds, even if they are the small minority who choose not to use Google for searching. Similarly, the iPod has captured the imagination of the music world, and if you are an avid iPod fan you scarcely know of Apple's competitors. However, those who choose to buy a competitive product also always have iPod on their minds!

First and foremost, companies must ensure that they continue to deliver quality products and services to their customers. In the global value creation scenario, companies need to aggregate value from the best in class providers. They can accomplish this if they have the right trust relationships and the right processes to integrate value across a set of providers. They will have to adopt customer driven sense and respond with dynamic approaches, rather than relying on predictive strategies drawn out of market analysis reports from corporate headquarters. Driving for quick profits by large companies has reached a point where it is conflicting with customer expectations. By drawing costs out, large companies have adopted the mass production, mass customer service model, which is resulting in declining service across the industries. With thoughtless automation in the age of computers and VRUs, service has all but disappeared from the business landscape, whether it is banking, airlines, utilities or retailing. One can scarcely find a customer service representative who can assist us beyond what the computer can answer, and perhaps even more shockingly fail to find a cashier to take money from you at a store. Where have all the people gone? Where has the service gone?

There is a high correlation between service and the customer facing personnel a company has. Companies today have begun advertising their quality of service, and that alone can attract customers. Many are finding out that customers are gladly willing to pay a little more for better service, as is seen at Apple stores which are fully staffed with competent and knowledgeable sales people who are able to respond to customers' questions in detail. In doing so, they are also able to sell a large amount of pricey accessories. In a global context, ensuring quality products and services globally is a challenge for any company, and they need to pay close attention here, so that this aspect is managed well.

Secondly, a globally connected enterprise needs to manage and project a consistent brand image, globally. They need to ensure that, if they have partners in the value chain, they all understand the key aspects of the

brand that touches the customer, and need to conform to the expectations of that brand.

Thirdly, for companies to be successful today, they must manage value within the global context, or with a high Global Index. We already discussed a unified metric known as the Global Index for measuring global effectiveness in Chapter 4. Now we will discuss certain generic strategies which will help a company achieve a high GI.

STRATEGIES FOR ACHIEVING HIGH GI

A company can create a global winning formula with a high GI index by taking some basic but effective steps as depicted in Figure 5.3 and described below.

FIGURE 5.3



The strategies for winning are:

- **Revenue** is from a customer base that extends beyond the G20
- Processes are common, integrated and flexible

- **Innovation** is occurring globally using global talent pools
- Objectives are integrated and aligned globally
- Human capital is spread and leveraged globally
- Metrics are aligned and coordinated for global resource optimization
- Localization is done for products and services locally
- Leadership is developed and harnessed globally.

We will treat each of the current global operating models in detail, examine their GI and define winning strategies and operating details in the next few chapters.

SUMMARY OF KEY THEMES

- 1. The Global Value Web or GVW approach goes much further than the existing frameworks of competitiveness. It espouses creation of dynamic value, creating clusters that are not limited to any geographic or country boundary. It is a paradigm shift in the way the competitiveness of the nations will be now redefined.
- 2. This leads to creation of value mosaics by assembling innovative and unique value propositions, which are the key to winning in the global economy.
- 3. Every country and company has a unique ensemble of capability. Even the most economically successful nations do not have all the capabilities to succeed globally.
- 4. The value elements, which have different footprints for each country, can be put together to produce a compelling global value proposition.
- 5. The basis of competition has progressively gone through the transformation from:
 - (a) Cost based competition
 - (b) Value based competition
 - (c) Competence based competition, and finally
 - (d) Global Index based competition
- 6. While companies can be successful locally with a few products and a small set of local customers, winning in the global economy requires a company to achieve a high GI. There are four major global models that are emerging which allow a company of any size to complete effectively. These are:
 - (a) Global capabilities within the corporation
 - (b) Linked global capabilities among large players

- (c) Virtual interconnections
- (d) Reverse global player

The winning formula requires achieving a high GI. Winning strategies require companies to capture the customer's imagination and provide a service that is sharply in contrast with the massproduced service that a lot of products companies are by and large providing today.

SIX

Technologies for the Global Age

Any sufficiently advanced technology is indistinguishable from magic. Arthur C. Clarke

TECHNOLOGY TRENDS

SEVERAL TECHNOLOGIES DEVELOPED IN the 20th century have brought the world closer. These range from the aircraft invented in 1903 to the smart mobile PDA at the end of the 20th century. However, in the last 30 years there has been an explosion in electronic technologies associated with computers and communications that have dramatically changed how we communicate and interact with one another, as illustrated in Table 6.1.

These technologies have enabled previously impossible things such as anytime, anyplace, anyone to anyone communications. Just as the aircraft helped humankind reach its dream of flying, similarly telecom and computer technologies have revolutionized communications. With related technologies such as voice communications via cell phones to video-conferencing on laptop computers using wireless technologies, the technology explosion now permits total location independence, i.e. anytime, anyplace work and play. We are getting increasingly used to buying, selling, communicating and working within a mobile environment, using tools from the simple cell phone to more sophisticated PDAs such as the iPhone and Blackberry that allow advanced, secure video communications in real-time with corporate offices; or with friends and family.

Additional Impact of Disruptive Technologies

Information Technology, Electronics and Telecommunications (ITEC) together have changed the complexion of the world economy. Commonplace

 Table 6.1:
 Major technology innovations in the last 30 years¹

- 1. Personal computers progressing to pocket PCs and NetPCs
- 2. Microprocessors
- 3. VCRs and next generation recording devices such CDs and DVDs
- 4. Cell phones and associated advances, i.e. PDAs
- 5. ATMs and further movement to electronic cash mechanisms
- 6. E-mail and electronic information exchange
- 7. Internet and the world wide web
- 8. Fiber optics and satellite based communications
- 9. GPS based navigation systems
- 10. Advanced computer systems for automation, integration and collaboration
- 11. RFIDs for electronic information exchange
- 12. Broadband communications
- 13. Electronic shopping and associated electronic marketplaces
- 14. Gene-splicing and genetic engineering
- 15. Scanning tunnel microscope
- 16. Doppler radar systems
- 17. VolP telephony
- 18. Microsurgery
- 19. Magnetic resonance imaging
- 20. Laser surgery
- 21. Liquid crystal displays
- 22. Light emitting diodes and associated lighting
- 23. Solar panels
- 24. Digital photography
- 25. Digital music

terms such as smart, embedded, congealed, virtual or gizmo did not exist in the business lexicon a few decades ago. The ITEC are important technologies within the global age and we will further explore how these enable various global models. These technologies are altering every company, industry and the very lives of people on the planet.

Fantasies are No Longer Fantasies

Product improvements or new inventions occur at regular intervals. They enable businesses and the economy to move forward continuously. Yet, there are certain discoveries, unbelievable at times, that change the shape of businesses and our lives in unimaginable ways. When Johannes Gutenberg developed the movable typeset printing press in 1439 and printed the Bible, few realized the deep impact this technology would have. It was now possible to disseminate knowledge to the masses at low cost, and easily preserve and pass on the knowledge to subsequent generations. Similarly, the railroad and the automobile allowed us to traverse large distances

¹ Various sources including Innovation Magazine, Wired Magazine, Fast Company Magazine and generally available information and analysis.

within a reasonable time and at a cost that became affordable to almost everyone.

Initially, there was a lot of resistance to faster mechanized transportation; there were observers who said that the blood vessels would explode inside the human body if someone travelled faster than 20 to 30 miles per hour. Then, the idea of faster travel was brushed aside with questions like '*why do you need to travel a long distance*?' since, few, if any, within their lifetimes had ventured more than 100 miles away from where they were born.

There are, however, many technologies that bring discontinuous changes against the existing road map of development. They remain unnoticed or are received with skepticism in the beginning, but go on to create a proliferating and disruptive change that forever destroys the best thinking of the time before the technology existed. In the sphere of the ITEC, we need to deliberate on their impact on the future. Perhaps, the time has come to add a few more chapters to the vision of science and technology bettered world as visualized by Leonardo da Vinci, H.G. Wells, Jules Verne and many other prolific futuristic thinkers. They had all fantasized, perhaps even visualized, often far ahead of their times, unique technological marvels, which upon their eventual coming dramatically changed the future course of the world. Envisioning the impact of ITEC is like drawing a conclusion about the daylight when the dawn has already set in. It is important to deliberate on specific actions to harness the opportunities that these technologies present, and innovate. Innovations that these technological marvels enable, have the ability to alter the course of businesses, industries and economies for the betterment of all humankind. We have already seen how the radio, computer and global interconnectivity has changed almost everything around us.

The gizmos that were limited to comic books, like Dick Tracy's radio watch, or electronic gadgets for the super spy, James Bond, have now become commonplace technologies through advances in electronics and miniaturization. Radio communications, robotics, heuristics algorithms based programming are embedded in toys that five year olds today use. These far surpass the best technologies that the fictitious detective and the super spy ever had access to.

Are ITEC Innovations Disruptive or Constructive?

Much before the term 'Disruptive Technologies' was popularized by Christensen in his Harvard Business Review article², the IT industry has

² Bower, Joseph L. and Clayton M. Christensen (1995). "Disruptive Technologies: Catching the Wave," *Harvard Business Review*, January-February.

conclusively provided repeated examples of many technologies that seem insignificant in the beginning, but take over the existing ones at a rapid pace, usher in an era of new opportunities, creating new markets and change the order of business leaders in the industry. Whether they are the word processing systems that exterminated the typewriter, the PCs that eliminated the mainframe's hold over business computing, or any other world-changing technological breakthroughs, they have proved time and again that such disruptive technologies have far reaching implications on the way business is, and will be conducted.

Disruptive technologies innovate a product or service in a totally unexpected way, either through lower prices, new consumer segmentation, or by enabling new business models with fundamentally different cost structures. Often, the new value proposition is so compelling, it can forever destroy the previous generation technology's hold in the marketplace. There are many examples of this from the non-IT arena, most notably the automobile, which virtually eliminated horse drawn carriages, and the aircraft as a mode of passenger transport, which has reduced ships to simply carrying bulk freight and goods. Within the ITEC, the telephone, radio communications and the transistor ushered in the era of global communications, thereby eliminating the need to physically travel from point A to B to get a message across.

With the advent of the Internet, disruptive technologies not only impact the ITEC industries, but all industries, and how we now think of the global economy where everyone is continuously interconnected. As a result, the paradigm that production had to be close to the customers has been destroyed. From the dawn of civilization till the early 20th century, individuals were at the mercy of local producers and retailers and pretty much had to consume the limited choice of goods produced within 100 miles of where they lived. However, today, one has unlimited choice and can easily consume goods and services produced by anyone anywhere in the world without leaving the comfort of the living room. This form of business received global attention in the 1990s when Jeff Bezos of Amazon amazed the world by moving the shopping experience from a physical 'brick and mortar' store model to an electronic 'point and click' model. Customers were able to instantly access a myriad products and books, including hard-to-find items, buy them online and receive the delivery the next morning through overnight couriers such as FedEx. Suddenly, customers were able to see products and services not just from one seller, but from hundreds and thousands of them. With the elimination of a retail storefront, goods were simply shipped from warehouses belonging to Amazon or their suppliers directly to the customers' homes. Traditional

retailers and booksellers raced to match what Amazon had just started. The world rapidly shifted from pure physical bricks and mortar commerce and business to e-commerce and e-business. Today, almost every company has an electronic storefront, and some have now completely eliminated their physical storefront. In fact, eBay pushes this one step further by allowing an electronic marketplace where anyone can sell goods to anyone. Simply advertise your goods on the Internet, and may the highest bidder win.

These technologies have removed yet another shackle of location specificity for an individual, and we are at the dawn of an age, the implications of which we cannot imagine.

These disruptive technologies create a unique dilemma for the current installed base of old technology. Companies and individuals, who are comfortable with the old, would not like to embrace the change soon enough as it would mean loss of current investment. As a result they are likely to miss the leap to the S curve these technologies enable. The history is littered with companies promoting the old till they found no takers of their products as the newer technologies were up and installed. Certainly, music, book, media, brokerage or any industry would not like to see the destruction of their value to have it be replaced by another innovator. However, something that is disruptive for one is constructive for another. While many intermediaries disappear and many existing industries struggle to redefine themselves, these technologies enable the creation of many new value streams, new creative re-intermediaries and value aggregators. Entire gamut of new industries emerge every time a major innovative technology comes along, and with these come benefits which can extend to all humanity.

IMPORTANT GLOBALIZATION TECHNOLOGIES

As we look at globalization, there are a relatively small number of technologies that we need to exploit aggressively to help us achieve new cost and competitive positions. Many of these technologies have been around for a while and are quite well proven. These are:

- Aircraft manufacturing
- Mobile technologies including cell phones, smart phones and wireless data cards
- Personal computing devices including PCs, pocket PCs and PDAs
- Collocation and collaboration technologies
- Integrated computer applications
- Social and business networking applications
- Internet technologies

The *aircraft*, though now a hundred years old, is still a wonderful technology that can physically move people and goods between any two locations on earth within 24 hours. This was man's eternal quest from the dawn of time, to fly and to travel large distances in a short span of time. Besides moving people to be with their families or on business, the aircrafts moves time-sensitive goods such as medicine, fresh food, flowers and critical components and machines quickly to their required markets and destinations.

Mobile technologies, such as the cell phone and wireless communications have changed the world more than any other technology. The fastest consumer accepted technology of all time, the cell phone provides the promise of an affordable communications device for everyone by 2020. This is a far cry from a penetration of only 1 per cent to 2 per cent of the world's population as recently as 2000. Cell phones are now morphing into powerful PDAs, which now allow exchange of information and video in real-time. In effect, the mobile PDA is a mini-PC providing all the functionality of a powerful computer, while at the same time, having unmatched mobility since it can easily be slipped in a pocket or a purse. Besides providing benefits for large companies that have dramatically increased the productivity of their key staff, i.e., sales, executive and knowledge workers, by eliminating dead time and getting quick responses, everyone in the world has benefitted from this technology. It is not uncommon to see individuals in rapidly developing countries, such as gardeners, cleaning ladies, or chauffeurs, who often make less than \$100/ month, use a cell phone to maximize their earnings by working at multiple locations, thereby eliminating dead time and unnecessary trips. Much to my astonishment, during a recent trip to Kenya, I saw ladies plucking leaves at a tea garden, and at a break, one of them zipped out a cell phone to make a call!

Affordable *personal computers* have given individuals the ability to access powerful markets, consumer, production and inventory information to quickly service customers around the world. For most knowledge work, the PC has essentially eliminated the need to travel to a physical office to work with colleagues. In fact, for many location-independent service activities, one can serve customers from remote locations. The leverage of this key technology will be discussed in more detail in subsequent chapters.

Computers and PCs have not eliminated the need for individuals to interact verbally, visually, or even be within the same facility. Powerful *collocation and collaboration technologies* such as web conferencing, video-conferencing and electronic presence technologies are eliminating the need for individuals to travel and be within the same room for interactions. These technologies effectively create an audio, visual and full motion view. Similar to those in TV news programs where the anchorperson interacts in real-time in full motion video with individuals located in several other remote locations. Previously, these technologies were expensive and could only be afforded by rich TV channels or large corporations. However, today with dropping costs of telecom and built-in cameras in laptops, anyone or any company can effectively collaborate globally using these technologies, and at costs approaching zero!

Computer applications in the 1950s initially started with simple task automation, and reduced costs by eliminating the need for human intervention for repetitive tasks. Today, large amounts of business and operating knowledge have been encoded into these ERP, CRM, SCM³ and Sales applications. Moreover, as these applications share and provide information to other suppliers, retailers and customers, it allows for real-time information integration and optimization across the value web, allowing companies to fine tune production and delivery based on just-in-time principles. This allows for real-time servicing of customers while essentially eliminating unnecessary inventory in the system, permitting delivery of goods and services at very high perceived value and at a lower prices. Computer systems that optimize applications across the value web and are able to put together tailored solutions for end consumer, make all these possible.

The *Internet* is, by the interconnectedness it provides, the greatest 'uniter' and 'leveler' of all the technologies ever developed. Never before have all human beings been able to communicate and interact with one another at the same time. In the early days of the modern era of communications and transportation, the phone, cars, and travel by planes remained affordable only for the chosen few. As recently as 1990, few outside the G7 nations had personal phones and cars, let alone having had the opportunity to travel on planes. It wasn't that long ago that Boeing's own analysis showed that only one in 100 people on earth had ever traveled in a plane. While the affordable cell phone has dramatically increased tele-density and provides the promise of a communications device for everyone by 2020, it the Internet that is here and now, and provides global interconnectivity to all for a few pennies a day, something almost everyone can afford. For those who still cannot afford the Internet connectivity and the personal computers, many governments in these poorer nations have programs that provide community devices for access. Low-cost cyber cafés

³ ERP = Enterprise Resource Planning, CRM = Customer Relationship Management, SCM = Supply Chain Management.

have sprung up across the world, particularly in the developing countries. Here, an individual who cannot afford to spend \$1000 for a PC and a monthly fee for an ISP, or even have reliable electricity in his home, can access the Internet for less than a \$1 for a few hours. Now almost anyone can communicate and do complex interactive and collaborative work with anyone else in the world, something that only a few very large companies could afford till as recently as 10 years ago.

Collectively, these technologies can be used to create unusual value. They can be used to do things that were essentially impossible or economically unfeasible earlier. We will discuss how these technologies can unlock value to transform the world into a singular interconnected whole furthering the transition to a global economy.

UNLOCKING VALUE THROUGH TECHNOLOGY

'Information is power'. This maxim reached a new dimension in the computer age and information technologies changed the very idea of what could be considered information and be managed as such. In addition, these computer technologies enable many other functions and capabilities that simplify our lives, reduce the cost of almost everything, and make things available anytime, anyplace.

With this kind of global interlinking not only are we able to interconnect all of humanity, but we are also able to harness powerful computing and processing systems that provide many a factor attenuation of human capability. It is estimated that a single supercomputer by 2050 will alone have the computing power of the entire human race put together! Leverage of such enormous power of IT has the ability to further enhance the potential of the seven billion people on earth who can now operate at a knowledge multiplier of 100 or 1000 in years to come, providing us the ability to operate with the power of a trillion or quadrillion minds all tied together. Clearly, this is what has the potential to unlock great unimaginable and yet unfound treasures of this universe.

As we have already pointed out, information technology in the form of computers, cell phones, PDAs, Internet and associated IT technologies are the key ingredients for globalization. While trade routes have existed for centuries, total globalization only began to take hold at the dawn of the 21st century. IT leverage made possible almost impossible things such as mankind's dream of the ability to communicate with anyone, anytime even beyond the stretches of the earth to astronauts in lunar orbit or beyond the farthest planet in our solar system. The leverage of IT has far dwarfed the uses of electricity, long hailed as one of the great inventions alongside the wheel. What capabilities will this knowledge multiplier provide for humanity?

IT is being used in many innovative ways including:

- Leveraging of the business ecosystem
- Informating the business
- Effective business management
- Shrinking time and distance
- Global resource leverage and optimization

We will treat each of these leverage areas in detail.

LEVERAGING THE BUSINESS ECOSYSTEM

Since computers allow interconnectivity of all individuals and businesses, relevant information can be shared easily across all participants, making it possible to extend collaboration and business decision-making from a single company to the entire ecosystem of participants that includes suppliers, distributors, manufacturers, retailers, customers, consumers, and even those at the periphery of the ecosystem, such as banks and insurance companies. While we will illustrate a typical production ecosystem, one can apply these concepts to their specific industry such as healthcare, entertainment, education, government or any other industry.

Innovation Across the Value Web

Innovation that was previously limited to the research department of a company can now extend across all partners. For example, an auto company can now leverage the expertise of designers and engineers of their tier 1 and tier 2 suppliers, e.g. manufacturers who supply tires, lights, braking systems, etc. to design a more appealing car. Any of the slick highend Italian or German sports cars turn many a head. While it may have the emblem of a Ferrari, the BMW or the Audi, it is not these companies that design, engineer and produce the cars alone. Producing aesthetically pleasing and powerful machines requires collaboration of designers and engineers from many companies that custom design lights, tires that can withstand speeds of 200mph, braking systems that can stop the car in seconds and interiors to please a prince. Without powerful integrative IT technologies as recently as 20 to 30 years ago, collaboration required many face-to-face meetings and cycle times for new cars were typically five to six years and often used common parts that did not enable fine-tuning of the performance characteristics of the car. Today, almost everything in a car is custom-made with virtual interchangeability, even the tires, in

sports cars. In fact, the front and rear tires, or the left and the right tires in the same car are often different. However, electronic collaboration allows engineers from different companies to work on a project together without having to physically be in the same room or building. As a result, while the customization levels have increased dramatically, the cycle times have dropped to around two years, and the choice available to customers has increased manyfold.

Consumer Prosumption

Prosumption is a term coined at the dawn of the Internet age to mean Production and consumption by the customer. No one can provide better insight into how a product is performing and what features and functions it should have than the consumer. However, most companies who have been successful over a long period of time, think they know better than the consumer and sometimes choose to simply ignore them, often finding their products to be completely out of touch with reality and customer tastes. Consumers can not only better define how a company should design and develop its products, but can also provide them valuable information on production scheduling and inventory management which could further reduce the unit cost of a product. Wikipedia is one of the best examples of prosumption where any participant within the global community can simply add to the encyclopedia and it can then be available freely for consumption by all. While sometimes questioned for its information source and accuracy, Wikipedia does have quality control mechanisms. As a result, contributions into the Wikipedia are no longer limited to the 2000 experts that Encyclopedia Britannica has, or to those having effective knowledge of spoken or written English. In less than a decade, Wikipedia has surpassed the knowledge base of some of the most revered encyclopedias of the modern world. As a result, Microsoft recently announced that they are closing the Encarta, and one can only guess how long the Encyclopedia Britannica will last.

In yet another brilliant stroke of marketing, the chocolate manufacturer, M&M has introduced customizable M&Ms, the famous chocolate drops, which as the company claims, 'melts in your mouth and not in your hands'. Today, anyone can order custom M&Ms and get personalized messages printed. These are being marketed by M&M for all kinds of events such as corporate morale-booster meetings, weddings, birthdays or any other event to pleasantly surprise the recipient. Orders are directly fed into computerized machines that produce the custom M&Ms. This is not only brilliant from a marketing standpoint, but it also allows customers to consume the very product they produce. Prosumption essentially eliminates any non-productive inventory in the system and results in immediate payment of goods, often before they are even produced.

Real-time Interactivity

Real-time interactivity has become commonplace. In banking, insurance, retailing, transportation, aviation, hospitality and many other industries. The instantaneous response this brings, results in a very high level of service, and when the interaction is with a knowledgeable and friendly agent, companies are able to lock-in the sale, which is often a new bank account, mortgage or a merchandize offer.

Potential to up-sell and cross-sell can further enhance the wallet-share capture from the customer. The value created by web-based standby agents is miniscule compared to what is possible through audio, video and webconferencing, which are now commonplace in almost every company. Scarcely a day passes by without staffers in multinational companies participating in multiple conferences. Video-conferences enable a much richer experience and allow geographically distributed individuals to collaborate electronically on the same set of topics and essentially eliminate costly travel time. These real-time collaborations which can be setup at the drop of a hat, have resulted in much better collaboration across the group of participants, which often includes the ecosystem participants and results in reduced cycle times and better quality, while reducing the overall cost.

INFORMATING THE BUSINESS

Nolan, Norton & Co., a pioneering IT strategy company in the 1980s, was far ahead of its time when it coined the term 'informate your business⁴'. No one understood what this meant since IT leverage in business was still in its infancy. Personal computers had recently hit the scene, and IT was leveraged mainly to eliminate manual steps and paperwork. Word processing was in vogue, and the naysayers often joked with the technologists that we will have a paperless toilet long before we have a paperless office. However, early examples of highly 'informated' businesses were already beginning to show up.

Increasing the Information Content

Federal Express, as FedEx was then known, had highly informated their business by adding valuable information to what most people thought was

⁴ Stage by Stage publications, Nolan, Norton & Co., 1985–1990.

a simple overnight courier delivery business. Some of the steps they took to informate their business included:

- Capturing details of shipping patterns of their customers.
- Customizing packaging to make it easy to ship, handle and deliver.
- Optimizing their fleet routing to minimize pick-up and delivery times.
- Capturing destination information through a scanner at the time of pickup and encoding the routing information on the package that was transmitted back to the scanning device in real-time.
- Optimizing sorting through their Memphis versus Newark hubs.
- Providing real-time tracking information available directly to customers eager to know where their package is and the expected delivery times.

All of these resulted in very high customer service and allowed FedEx to live upto customer expectations when they urged people to 'ship by FedEx, when it absolutely and positively has to be there by 10:30 am the next morning. Thus, FedEx had greatly leveraged IT for its business advantage, reliability and customer stickiness.

Making the Business Totally Electronic

Informating the business is one aspect where a company increases the information content of its business and uses it for practical business advantage. However, complete conversion of the business to a totally electronic space provides unmatched advantages and virtually eliminates customer churn, as long as the company keeps the pricing competitive. When a business is converted to a fully electronic one and the networks for delivery are reliable, one essentially eliminates any issues with customer service. In addition, product and service innovations can be done quietly behind the scenes in offices and the enhancements be continually provided to the customer over the Internet. Today, many examples of total or almost total electronic businesses exist. With robust, reliable and ubiquitous electronic billing and payment systems, almost every company after their initial sale never ever interacts with the customer, thereby eliminating all costs other than what it takes for the computers to provision, bill and automatically collect payments. Examples include:

• Cell phones, which can also be ordered electronically over the web and be delivered by an overnight courier service, followed by all electronic billing and payment systems. The customer simply consumes and the computers take care of the rest including the

provisioning of the call connection, tracking, billing, auto payment collection, with no paper but simply machines and computers doing the rest.

- Insurance—after the initial purchase about 15 years ago, I have never talked to my insurance agent or paid an insurance bill by a check. All transactions are done over the wires including annual renewals, premium adjustments and automatic withdrawals from pre-authorized checking accounts.
- Digital media businesses such as audio, video and movies—millions of songs, TV programs and movies are now being downloaded on iPhones, Nokia phones, home computers and entertainment systems. Participants include everyone in the ecosystem including content owners (music, movie and entertainment industry), value aggregators and distributors such as Netflix and Apple, and transporters such as the telecom companies. Here again, only electrons are moving along merrily to be converted into audio and video signals at the receiving end, and the electronic meters are clicking at banks that are simply moving a few electrons from one computer to another, magnetizing and demagnetizing a small strip on two hard disks that concludes the money exchange.

Save those paper currency bills and postage stamps. They may be very valuable one day at a collector's conference as great inventions of the 2nd millennia that were used extensively in commerce and payments for moving packages of information. However, in the digital age, there is no room for the mighty pen and paper, only place for the even mightier electron!

Sense and Respond

Increasing the information in the business can make companies far more responsive to customer needs and certainly more efficient in their production of goods and services. Walmart's incorporation of advanced technologies such as point-of-sale terminals is legendary where they capture the movement of every good sold, which is then used to optimize placement of goods on shelves as well as to provide information to the suppliers for replenishment of goods resulting in minimal stock-outs, effective inventory management and better tracking of damaged or lost goods. Airlines have also long used information in many ways including measurement of number of feet crossing the terminals at various times of the day in order to optimize number of agents based on queuing theory, as well as doing real-time pricing for dynamic yield management of seats in their aircrafts based on number of seats sold at any point in time. Shopping pattern analysis based on loyalty card use for purchases allows a

company to analyze and place co-purchased goods closer together to allow greater sales of bundles, which makes the shopping experience better and more valuable to both parties. *In addition, effective pricing can help in moving slow moving goods and capturing customer excess till the limits of price inelasticity for certain high margin goods.*

EFFECTIVE BUSINESS MANAGEMENT

Value Aggregation and Disaggregation

It is no secret that one who specializes in a particular field of pursuit is likely to be better than a generalist. Companies too cannot be all things to all people. During the reengineering and core competency analysis era of the 1990s, companies thought through what they were good at and what they could source while protecting their core business and intellectual property. This resulted in componentization of a business along the value chain. Since a well-defined component in the value chain was in effect a process and value island, it could in its entirety be performed by another company and be linked back to the mother ship through electronic tethering. This allowed companies to rapidly disaggregate their value chain and search for sourcing partners, making them far more effective, as management attention could now be focused on the core operations of the company. As a result, functions such as payroll, accounting, engineering major subcomponents, design, and even research, as in the case of Cisco, could be disaggregated from the company's primary value chain and sourced from the best provider available. However, with specialization, companies were able to find leverage of their newfound expertise and competency within the eco-system they participated in.

Amazon, which mastered the automation and logistics management of a super electronic warehouse with hundreds of suppliers, was sought after by many of its suppliers to help them optimize their own logistics. So much so, that today FedEx and UPS provide global logistics support and services to hundreds of companies, something of much greater value than simple movement of goods from one point to another. This extension of the value chain or reaggregation of value is something every company needs to examine. Telephone companies that can reach into a customer's home through their wire or fiber line are able to integrate and aggregate value across the ecosystem of home-related telecom and related digital services. As a result almost every telecom company is also providing Internet services, media and entertainment services, electronic monitoring and safety systems through the wire, wireless or satellite access to their customers. It is much easier for Dishnet to partner with AT&T to leverage

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the latter's reach and relationship that extends to over 75 million households rather than try to build enough sales capacity to reach this customer base. AT&T has built this reach by providing great service to its customers for over 100 years. Why not simply piggyback and become part of a more valuable ecosystem that includes telecom and entertainment. This creates a win-win situation for all—the telecom company since it now enhances values and captures more from the customer, the entertainment company which reduces its cost of reaching a very large customer base, and the end customer who can now buy integrated bundles in less time and at a lower cost, since the cost of doing business for everyone within the ecosystem is now lower. Finally, when the customer buys such value enhanced bundled services, it greatly reduces customer churn since the cost of switching and the ability to realize any savings from a competitor are virtually eliminated. The only way to lose a customer in such a case is to provide poor service and not keep up with the times in terms of innovation.

Extended Automation

Mechanical machinery, particularly CNC machines significantly reduced the labor content in products while improving accuracy and precision in the end product. Rework and scrap were significantly reduced or eliminated since machines and computers are excellent at repetitive tasks and deliver essentially the same results as long as the machine is 'well-oiled' and maintained. Extended use of robots and automated manufacturing systems have further reduced the labor content in goods. However, these capabilities are completely dwarfed by what computer and IT related automation can do.

Computers routinely fly aircrafts on autopilot and perform instrument guided landing in rough weather. This is because both explicit and tacit knowledge has been captured and codified using advanced heuristics and artificial intelligence systems, allowing computers to make very complex calculations of a multitude of scenarios and converge on accurate answers, something a human being cannot do. The advanced tactical fighter in the US Air Force is aerodynamically unstable, but computers fly the aircraft by adjusting the control surfaces over 150 times per second, something only computers can do. However, in these examples, the computers are only controlling one device or machine. Far more complex integration and automation, such as capturing the entire information associated with a business, delivers yet another level of capability.

Integrated ERP, SCM and CRM systems allow companies to manage entire businesses from suppliers to retailers through an optimized value chain. Individual processes, forecasting of demand, scheduling of

production, ordering of components and supplies, and scheduling of plant, machinery and labor, are commonplace—this is what integrated ERP systems and computers do. Further integration of RFID technology into products allows retailers such as Walmart, Tesco and Carrefour to better automate their inventory management, even in fast moving goods such as groceries. Computer systems are automatically handling billing, collection, scheduling or replenishments, optimizing pricing of goods, recommending best locations to place goods, optimizing number of sales clerks, allocating machines and scheduling of staff to run those machines across thousands of stores, manufacturing plants, machines, suppliers, etc. while tracking hundreds of thousands of goods. Computers are handling the routine decision-making through these extended automated systems.

Leveraging Information

Information can be leveraged in many ways to enhance the operational efficiency and effectiveness of a company. Companies that can retain and analyze more information can capture more of the consumer excess. Retailers routinely use point of sale terminals for understanding how to collocate goods for greater sales. Airlines are extremely good at real-time pricing based on the time of day, a particular day of the week, or even days approaching any major event, such as a sporting event. Based on these factors, they adjust pricing and airline capacity on select routes. All this is not always visible to the consumer who is effectively looking for convenience, value and availability of the product, i.e., a seat for the route they want to travel in when they want to travel. Other leverage of information includes time series analysis, which provides insight on which products are fading and which are moving faster, allowing companies to better plan product lifecycles. When we use that affinity or loyalty card, it gives companies valuable information they can use to maximize their profits.

SHRINKING TIME AND DISTANCE

Time Independent Work

Continual connectivity now allows companies to leverage the time of their staff beyond the nine to five routine. While many employees would consider it unfair, this is, in fact, becoming the norm. With laptops and PDAs continually connected, employees are expected to meet stringent deadlines, resulting in late evening work hours. We have come a long way from simply enhancing the productivity of salespeople by giving them cell phones so they can continually conduct business verbally even while on the move. Now, it is not unusual to see large number of people working on laptops in planes and trains, or using Blackberries and touch phones while having a meal, or even in corporate meetings! However, to give credit where its due, a lot of companies have also responded by providing flexibility to individuals by allowing them to work flexi-hours and from home, as required, as long as the work is done.

While flexible and extended hours are one aspect of time-independent work, global resource leverage under the 'follow-the-sun' model provides yet another dimension in terms of time independent work. Today, teams around the world work and pass on the baton as the sun moves from Asia to Europe to the Americas, allowing 24-hour work on the same initiative. This is commonplace in call centers, product design centers, research and a host of other support work. It is not uncommon for consultants, analysts and investment bankers to send in their requests for analysis, research or report preparation in the evening from North America or Europe to India and have the job completed overnight, i.e., while its daytime in India, and ready before 8 am at the requesters end, resulting in significantly reduced cycle times.

Location Independent Work

Since the dawn of time, and through the industrial era, work was produced and delivered locally or within a close proximity of where it was produced. While goods could be transported on ships across oceans and with trains on land, the workmen pretty much had to be close to where their value work was performed. IT has changed all that. Individuals, no longer need to be close to where they deliver their valuable service. Today, researchers, analysts, customer service agents for banks, insurance companies, airlines or any other industry can service a customer remotely through interconnected computers where they have all the customer information and handle the customer requests through the web or a VoIP phone. In fact, it is very difficult to tell where a product or service request is handled. Call SAP for support and the thick accent suggests the call is picked up in Eastern Europe, or try to book a ticket on British Rail or British Airways, and an 'accent-neutral' English speaking Indian in Gurgaon or Bangalore handles the request.

Other than where a direct interaction is required, e.g., in a sales situation, or extended, highly interactive collaborations, or for running a physical machine, all work is becoming essentially location independent.

Leverage of location and time independence can be used by companies to dramatically reduce their cost by leveraging global resources, many of

them at a lower cost than in their traditional markets. In addition, it can dramatically increase customer service and shrink cycle times.

GLOBAL RESOURCE LEVERAGE AND OPTIMIZATION

Global Sourcing of Talent

We now have the ability to do collaborative work by applying the best expertise anywhere in the world and connecting all the pieces together into an integrated final result. With extended collaboration tools for design, scheduling and selling, it is possible to simultaneously leverage experts everywhere. Beyond the cost arbitrage of moving personnel from high cost locations to low cost locations, as in offshoring, we can now also have designers work in Italy, who can work with production teams in China and retailers in the US to ensure that the clothing range hits the mark when purchased by the American consumer. This best talent at the best place concept allows companies to deliver unmatched, high value products that leverage the best design, engineering, manufacturing, retailing and business talent available globally. No longer is expertise availability limited to the big companies. Virtual islands or individual pockets of excellence, such as a top designer or engineer can be part of the value system, all seamlessly integrated into the whole. Manpower and Adecco which initially were simple shops for providing temporary labor in the US and Europe, now have operations globally, and have vast talent pools of people in Eastern Europe, India and China. They can make available any kind of expertise quickly from around the world at price points that one can optimize within a global rather than a local context.

Interlinking All the Islands of Resources

Electronics allows interconnectivity of the resources that may be spread globally, i.e., plant, machinery or people—something, which was impossible before. By connecting all spare plant capacity into an electronic marketplace through IT, a company can use spare plant capacity of others at marginal costs. This provides better returns to both the value assembler and the company that has spare, unused capacity. Many virtual value chain assemblers have put together unique value propositions such as insurance policies, high-powered consulting and other unique capabilities by tying together unused or under-utilized capacities of companies and individuals in a value proposition that is difficult for even a scale company to match. Ikea sources its furniture manufacturing, often at marginal costing, from spare capacities of many factories around the world which give it an

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unbelievable cost advantage. It is able to do so because it can monitor and integrate all the different factories and retail stores electronically and ensure that there is a balance between production and demand, and inventory is minimized while maximizing inventory cycles.

Connecting Experts and Workflow into a Continual Stream

Similar to plant and manufacturing capacity, human capital can be connected into a continual stream of expertise that is working around the clock. Many companies follow-the-sun for shifting work from Asia to Europe and then to Americas to get 24 hour work and shrink cycle times. Key to enabling such a form of workflow leverage is to have common or singular global processes that use common methodologies and training. Intel uses this for its chip design, which is coordinated between its centers in Santa Clara, Phoenix and Bangalore. Many other companies, such as Intel, Motorola, SAP and Ford are also using this concept in shrinking their cycle times.

RESULTANT SHRINKING WEALTH GAP

The traditional have-nots, who, prior to the advent of the globally interconnected world, had no access to western markets, can now freely participate in the global economy and sell their products, services or knowledge. In addition, the traditional 'have-nots' create a relative imbalance in the system, since their services can be available at far more competitive prices than those of the traditional 'haves' who had access to the markets and government protection whereby global participation of the 'have nots' was prevented. The impact of this is already being felt widely across the G7 where over five million jobs in research, analysis, tax preparation, IT, call centers and the like, have shifted to low cost destinations such as India, China, Philippines, Eastern Europe and Mexico.

World outside the G7, considered developing, now doesn't have to go through the same investment cycle as the G7 did, because technology has dramatically reduced the cost of doing everything. IT, mobile devices and embedded electronics now make possible new business models that were economically impractical in the brick and mortar, hard-wired physical world. The opportunities that this creates extend far beyond a corporation, country or continent. New global communities and innovative business models, which were limited to the knowledge and capital rich G7 nations in the past, are now possible anywhere and everywhere. Even writing a book like this one in your hands has dramatically changed compared to

how it was written 15 to 20 years ago. In this case, the book has been written through collaboration of two authors in different continents, deeply researched without ever visiting a physical library, discussed on VoIP Skype channels, published and distributed by a global publisher with local operations, and, finally sold through online shops to communities of readers and book lovers across the world, in most cases on locally printed copies! We will discuss how anyone can gain access to essentially the same capability as a large corporation with a fraction of the resources in Chapters 8 and 9.

SUMMARY OF KEY THEMES

- 1. While there are enormous technology leaps, there are a relatively small number of technologies that we need to exploit aggressively to help us achieve new cost and competitive positions and win globally. These are:
 - (a) Aircraft
 - (b) Mobile technologies including cell phones, smart phones and wireless data cards
 - (c) Personal computing devices including PCs, pocket PCs and PDAs
 - (d) Collocation and collaboration technologies
 - (e) Integrated computer applications
 - (f) Social and business networking applications, and
 - (g) Internet technologies
- 2. Information Technology, Electronics and Telecommunications (ITEC) together have changed the complexion of the world economy. Within ITEC are several disruptive technologies that are dramatically altering the economics of several industries, putting traditional incumbents in these industries under severe pressure.
- 3. The technology lever driven by IT and powerful computers provides the potential of knowledge multiplication where seven billion people on earth can have the effective power of a trillion or more brains are tied together. This power has the potential to solve the most difficult problems we have faced and uncover the great secrets of this universe.
- 4. IT is being used in many innovative ways including:
 - (a) Leveraging of the business ecosystem
 - (b) Informating the business
 - (c) Effective business management

- (d) Shrinking time and distance, and
- (e) Global resource leverage and optimization
- 5. Companies can increase the information content in their businesses and make their products and services further electronics driven. This will help them operate much better as 'sense and respond' organizations, resulting in very high value addition.
- 6. In order to focus their business on their core strengths, companies need to examine their value chains and do a disaggregation and reaggregation analysis, where they can source non-core components from specialized providers and further aggregate value components into their business.
- 7. Companies can leverage all the implications of the separation of location, i.e., where work is produced and where it is delivered. Computers have shrunk the time and distance factors, enabling local and time independent work and play. Companies can leverage talent pools globally by tying them together through IT and enabling them to do collaborative work round-the-clock, resulting in significantly reduced cycle times for new products and much lower costs.

SEVEN

Strategic Sourcing and Partnering

Technology is something we buy to sell to the customers, and technology is something which Ericsson, Nokia and IBM develop for a living, so let's give it to them because they know it best ...

Sunil Mittal, Chairman Bharti Airtel

IN THE QUEST FOR maximizing profit, businesses are always looking at minimizing their cost of production, whether it is for manufactured good or for services. When capital and knowledge were scarce, and in the hands of a few, companies exploited various techniques such as backward and forward integration across the full supply chain, and pursued economiesof-scale without consideration of the dynamic and changing world. No one better exemplified this than the US auto industry at the dawn of the 20th century. Companies such as Ford not only owned the design and manufacturing of cars, they also owned steel, glass and rubber plants that provided the body stampings, windshields, tires and all the components for almost completely manufacturing the car. Several other car manufacturers also pushed into the forward integration of owning the dealerships that eventually sold and serviced the cars to the customers. Ford pushed the economies-of-scale even further by promoting the mass-produced black Model T to millions of customers at a dramatically low price.

Times have changed dramatically from the early 20th century. Thousands of fairly large companies have emerged with a high degree of specialization. As big as Ford and GM can be, the total consumption of tires in their new cars would be a small fraction of the production of a large tire manufacturer who not only sells tires for new cars, but also provides replacement tires for a much larger population of cars already on the road. They also have much greater expertise since they supply tires for trucks, buses, earth-movers, motorcycles and many other applications. Furthermore, customers are looking for choice not only to have a product that is different from their neighbors', but are also seeking out newer features, functions and technologies. Companies only have limited resources, and it impossible for any company to meet all the requirements of their customers by themselves. Therefore, companies have to focus their limited resources in areas where they can get the maximum leverage and make their product distinctive. Further, enhancing the product requires additional resources. This requirement has led to the practice of sourcing major components of the product or service from other partners and suppliers. Requirements for greater product variety has by no means made the concept of economies-of-scale obsolete. Instead, companies need to think of flexible scale with shorter set up times and smaller production runs, an approach also known as engineered variety or mass customization.

Every company faces the challenge of 'what to make' versus 'what to buy.' In the modern world of manufacturing, the emphasis is on specialization and scale. As recently as 1980, almost all the external sourcing was for simple parts from other suppliers. If the parts were complex, they were engineered by the procuring company and simply sourced for manufacturing by the supplier. However, outsourcing has moved far beyond simple buying. Now, companies are able to completely source an entire business process or components of their value chain. As an example, in the auto industry, the auto-assemblers, as they are now called, completely source braking systems, transmissions, steering systems, etc., from other suppliers who have the full design, engineering and manufacturing capability to provide these systems. Borg Warner and Bosch are some notable key component sourcing providers for some of the largest auto assemblers.

Sourcing, when done correctly, can increase the effective resources available to a company at a much lower cost since they can source different components and capabilities from several companies, each of which is focused on their own specific area. Some of the key considerations for effective sourcing are:

- Complexity of skills required to make key components, and whether someone else is better at it, as long as it is not a direct end-product competitor.
- Customization and volume of components required.
- Shifting technology that would require investments in the upkeep of research and production capabilities.

Besides access to specialized knowledge, resources and production capacity, sourcing provides another major advantage—it can increase the revenue velocity of the company without any additional capital outlay.

Not every company can do everything all by themselves. They need to source components, assemblies, etc. that require specialization or scale economies to produce them in a cost effective manner. The better approach would be to think of the product complexity and product dynamics, i.e. if it is fast moving and you do not have all the expertise, or are not likely to have all the expertise and are looking for flexible scale through low volumes (e.g., customized for local markets by customer segment), then your propensity for sourcing is higher so that you can utilize the capital, plant and machinery, and the skills of partners to provide you more flexibility and maneuverability in fast moving industries. Apple is a master at this, exhibiting one of the highest sales per employee, about three to five times that of its industry peers. This allows it to introduce a multitude of products faster and at competitive prices. In contrast, IT industry leaders couldn't keep up with the specialization and pervasive knowledge and dramatically reduced their manufacturing footprint, which accounted for 70 to 80 per cent of sales around 1980 to less than 30 per cent today.

GLOBAL UPHEAVAL DUE TO THE ADVENT OF IT OFFSHORING

Sourcing was traditionally limited to blue-collar jobs until around 1990, for low-cost labor for well-defined manufacturing processes, and usually involved a worker who could be trained to run a machine to perform repetitive tasks. The trend started with sourcing of auto components and eventually gave rise to sourcing of large amounts of manufactured goods, progressively from Japan, Korea, the Asian Tigers, and finally China, India and a host of other low cost manufacturing destinations. Manufacturing companies realized huge benefits by reducing their costs from around \$200–300 per day per worker to less than two dollars per day per worker, when they began aggressively sourcing from China in the early 1980s. Manufacturing jobs migrated rapidly from the West to the East. However, the potential in manufacturing was nothing compared to what was on the horizon.

It was not till the early 1990s that knowledge work could be outsourced. This began in a big way with the sourcing of IT services, and eventually transitioned into other areas such as business processes, knowledge activities such as analysis, research, engineering and medicine. This area deserves special attention since it was IT sourcing or offshoring that resulted in a global upheaval and truly ushered in the era of the modern globalization. IT outsourcing was initially pioneered by EDS when they began to migrate IT systems and computers from banks into a large, shared resource pool at EDS, which was able to reduce the costs for each bank through higher asset utilization of expensive mainframe resources.

IT outsourcing, however, has taken on a whole new meaning with the leverage of human capital from India. India has a vast, well trained, English speaking, computer literate workforce, and was able to simply connect into the global value web by connecting computers over the global telecom lines. Workers sitting in Bangalore or Hyderabad were able to perform work for companies in New York or San Francisco with the same effective output as someone sitting in the same offices in these American cities.

It was not the global Big 5 that provided the leadership in this area. The upstart comanies of early 80s such as TCS, Infosys and Wipro in India paved the way for a brave new world in terms of human capital leverage. The writing was already on the wall when India based companies such as TCS and Infosys offered Y2K services at \$20 per hour for what the Big 5 global IT companies were charging \$200 to \$300 per hour. Suddenly, we were no longer talking about saving \$200 per day on a blue-collar job, but of \$200 per hour for a white-collar job!

Many IT industry leaders were in a denial mode and continued to protect their high priced services by maintaining account control with their biggest customers in the US and Europe. Visa regulations prevented the free flow of human capital across geographic boundaries and they were able to capitalize on this technology and legislative barrier for almost two decades. However, low cost global telecommunications and the Internet changed all that. Everyone was waiting to see who blinked. Seeing this approaching 'offshore tsunami', most of them bit the bullet and started to offer the contract at offshore prices using their current onshore resources in the US and subsequently made major investments in India to build the off shore base, In less than seven years, IBM, HP, Accenture and many others now have largest number of off-shore resources in India than in any country in the world. While Accenture has close to 40000 team, HP India has close to 50000 employees and IBM has more than 90000 team in India by the end of 2009.

SOURCING STRATEGY

The trend of outsourcing in the last 30 years has swept the business landscape far beyond manufacturing. In manufacturing alone, China has changed the rules of the game where it provides massive low cost human capital. Similarly, availability of human capital all over the world is changing the world of outsourcing, which is no longer limited to manufacturing. In fact, outsourcing has extended into services, IT, knowledge and even medicine. In today's dynamic world, the basic premise is that capital will

chase resource, both production and human capital, in places where it can provide the best returns.

Sourcing and partnering can provide a company access to additional resources and capabilities. However, this should be done carefully, so that the distinctive capabilities and intellectual property of a company are protected. The sourcing and partnering footprint of a company also depends on its current capability positioning and what it is trying to accomplish. We treated the global footprint measure known as Global Index in Chapter 4, and will treat specific strategies to enhance the global capabilities and positioning through partnership strategies in Chapters 8 and 9. A comprehensive sourcing strategy should consist of all of the following elements:

- Source activity from the best place to leverage expertise, capability, quality and time elements at the best overall cost.
- Ensure protection of IP, core competencies and legislated technologies.
- Balance partnering versus vendor sourcing.
- Be sensitive to geo-political situations.
- Ensure integration across islands of sourcing.
- Ensure redundancy that permits shifting of work dynamically.
- Enable a value migration to future products and services.

SOURCING ACTIVITIES FROM THE BEST PLACE

Most of the focus on sourcing these days has been on IT sourcing, which has a major component of 'offshoring', or sourcing of IT activities at low cost destinations, particularly India. However, sourcing consists of many elements, including labor-intensive activities, such as manufacturing, services such as call centers, research and engineering activities, medical transcriptions and other, more complex knowledge activities. We will treat each of these in detail:

- Manufacturing outsourcing
- IT outsourcing
- Business process outsourcing
- Knowledge process outsourcing

Manufacturing Outsourcing— China—The Preeminent Sourcing Destination

In 1979, Deng Xiaoping initiated the opening up of the Chinese economy. Its large population and absence of strict labor legislation have led most

government-controlled companies to pay relatively low wages to increase their profit margins. The large Chinese work force, which is a combination of high-end skilled technical workers and low-level manual laborers, has ensured that China can be a major manufacturing centre for a long period of time. Unlike previous lower cost manufacturing destinations such as Japan, and then Taiwan and Korea, which ran out of any more deployable workforce, only 10 per cent of the Chinese population is deployed in manufacturing related industries today, leaving a vast cushion for future leverage. Beginning with low end and cheap products, China produces just about everything including textiles, footwear and high-end electronics, including the slick iPhone. The world's most populous nation of 1.3 billion has a planned approach for workforce development, training and deployment. China is focusing on getting its population to be English speaking, and has elevated the level of technical universities to focus on the latest engineering and electronic technologies. Clearly, China wants to shift from being a pure low-cost labor provider to one that can provide quality products to the world. Early examples of this are already visible. Haier is now the world's largest appliance manufacturer, and its white goods products are now being conspicuously sold, even in the US, which had ruled the world of appliances till 2000.

With this low-cost structure, a very large manufacturing base of the world has shifted to China. Chinese goods can now be found filling the shelves in over 100 countries. With higher employment rates and shift to higher value-add manufacturing, workers are demanding higher wages. In addition, in January 2008, the Chinese government upped the minimum wages, which now range from US\$43 per month in Guangzhou, to \$61 in Shenzhen and Zhuhai. The 2008 World Bank report ranks China as 86th out of 178 countries in terms of ease of employing workers and GDP per capita. With increasing pressure from other developing countries that also want to duplicate the Chinese miracle, China will no doubt become less attractive than it was in the previous two decades. As manufacturing has shifted from the G7 to China and India, so will it over time shift to other destinations which offer quality and robust low-cost manufacturing and sourcing options.

This low-cost manufacturing concentration in China has proven to be a double-edged sword. In the 2008–09 global economic slowdown, 15.3 per cent of the 130 million migrants workers, or one in seven have lost their jobs as over 50,000 factories shutdown due to lower global demand.

Several recent studies have suggested that by 2016–17, China will surpass US in the global share of manufacturing due to its rapid growth

in sectors such as textiles, electronics, home appliances, basic metals, computer equipment, and others. China will continue to be engaged in manufacturing, with as much as 36 per cent of its GDP coming from this sector compared to 12.5 per cent of the GDP in the US. The last time the global manufacturing leader, UK surrendered its coveted leadership was in 1850 when US became the country with the largest industrial output.

While this is all well and good, and one can brag that one country's output is greater than that of another, it is somewhat meaningless in the global economy. With work now being performed around the world, and with cost differentials resulting in the PPP, it is difficult to say if one country is better than another or has greater output than another. There is tremendous interdependence now in global trade, all that is important is to elevate the standard of living within a country. Work and jobs will move around to where it is performed at the best value point. The challenge is for companies to define flexible structures that will allow them to continually harness and move their productive resources around the world to tap into the next S curve of opportunities and markets as they emerge. We will treat this in detail in Chapter 9: Structuring for Success.

Figure 7.1 shows the IHS¹ forecast of the shift in the manufacturing around the world and shows the dramatic rise in the Chinese share of the world manufacturing.

IT Outsourcing

IT outsourcing technically is about sourcing IT services from a partner. However, most partners source a major component of their services from low-cost destinations, which are often referred to as IT offshoring destinations. As an example, when a company sources a major portion of its IT services, or completely outsources its services to a partner such as Accenture, CSC or Capgemini, these companies keep some of the services onshore and source the rest from an offshore destination. Usually services that are highly time sensitive or proximity service dependent, are maintained onshore, i.e., within the local country or continent of the primary operations. Most IT outsourcing deals so far have been within the G7, but now companies in China, India and other developing economies are beginning to source their IT from more companies that specialize in these services, since they can provide much better expertise in the management

¹ Institute for Advanced Studies, Institut für Höhere Studien (IHS), http:// www.ihsglobalinsight.com/a leading body for economic research.
FIGURE 7.1





Source: http://www.globalinsight.com/Perspective/PerspectiveDetail13718.htm

technologies that are being introduced at an accelerating pace. Offshoring is done in a variety of locations, which are often referred to as:

- Offshore—typically refers to India, China, Philippines or Eastern Europe which are considered offshore locations from a Western perspective
- Near Shore—typically refers to Mexico and Canada for sourcing from the US, and Ireland and Eastern Europe for Western Europeean companies, since these sourcing destinations provide same time zone sourcing as the major operations
- Any Shore—refers to sourcing from any destination, and utilizes a 'follow-the-sun' approach, which permits non-stop and round-the-clock support.

The PC and the Internet led to the rise of IT outsourcing. Initially, it started simply for data entry back in the 1970s, and gradually progressed up to code maintenance, Y2K support, and finally, into full fledged IT development and support including operating systems, ERP packages and custom development. As we pointed out earlier, IT sourcing provides the potential of dramatically lowering costs, which have dropped from around \$300 per hour in 2000, to a blended onshore/offshore mix of around \$85,

today. As a result, comprehensive IT automation projects, which were only affordable by large corporations, have now come within the reach of midsized enterprises.

Besides lower costs, global IT outsourcing provides many advantages. These include:

- Round-the-clock leverage of global human capital by passing the baton from North America to Europe to Asia, resulting in nonstop work and dramatically shortened cycle times for new product development.
- Off shift work, where work from Europe and Americas is shifted to India overnight. Being halfway around the world, work is done during daytime in India and ready for the users when the come to work the next morning.
- Leverage of large resource pools of trained personnel beyond IT professionals such as doctors, engineers, lawyers, etc. into the value web of BPO, KPO, LPO and any other XPO.

BUSINESS PROCESS OUTSOURCING

Business Process Outsourcing (BPO) to an offshore destination at dramatically lower costs was pioneered by GE in the mid 90s. GE moved hundreds of business processes such as business analytics, insurance risk analysis, supply chain optimization, etc., to its remote BPO centers in India. After all, when a user in GE headquarters in Fairfield, Connecticut, submits a query related to his travel bills, he really doesn't care how and where the work is performed, as long as his or her questions are answered. No longer was this function being performed by a person sitting on a different floor in the same office building; but by workers sitting 8000 miles away in Gurgaon, a suburb of New Delhi. The travel bill process team, using a fair degree of automation to check the travel documents, associated bills etc., can be relocated anywhere and can perform the job with the same level of expertise, but at a dramatically lower cost, which is often 10 cents to the dollar, as compared to support costs in the developed economies. The developing countries provide, overall, much lower costs than the developed countries. The lowering in costs not only comes from lower costs for the same skill levels, but also from lower cost of real estate, servicing equipments, energy and preferential tax treatments provided by governments in developing countries that earn precious foreign exchange because of these services.

Complex business, knowledge, legal and medical process outsourcing further illustrate that the interconnected world is all one, and country

boundaries and barriers are meaningless in front of human ingenuity. This is no longer just about call centers, supply chain management or IT code maintenance. X-rays taken in hospitals in England and US are sent over the Internet for interpretation by doctors, who, sitting in the offices of IT Companies in Bangalore, provide their initial diagnosis in a few minutes. This is available to the expert doctor within a few minutes, who can then take the initial interpretation and add his or her expertise to immediately service the patient, thereby almost doubling the number of patients the doctor can see within a day. This is a win-win situation for all in the global economy-the patients, the hospitals, the doctors and the offshore providers. Faster servicing of patients, higher utilization of hospital resources and the more patients a doctor can see, all add to better leverage of previously underutilized medical talent in India. Not limited to large companies, today school going children in the US are being tutored remotely by Indian teachers using web cameras and broadband connections from the comfort of their homes-comfort both for the student and the teacher. In fact, I am reminded of a cartoon that appeared a couple of years ago in an US newspaper, which showed a 10 year old in front of a computer being admonished by her father that she could not offshore her homework to India. Well, that too is surely in the pipeline!

Like water that seeks the lowest level, outsourcing will always find and tend toward a lower datum. While India and China are today's powerhouses due to large trained resources, this could shift to other countries such as Philippines, Vietnam, or Bangladesh in the future. In fact, the G7 were sourcing a portion of their apparel from places such Hong Korea, Korea and Taiwan in the 1970s. This shifted in a big way to China, India and Indonesia, as large low cost capital and labor became available in these markets. Today, many of the large manufacturers in these countries do second sourcing from neighboring countries such as Bangladesh, Sri Lanka and Pakistan. Companies need to recognize this and continually analyze the megatrends as well as seek opportunities proactively to shape the business environment to their advantage.

KNOWLEDGE PROCESS OUTSOURCING—THE FINAL FRONTIER

Most knowledge activities, be it business process outsourcing, complex engineering, or sieving through thousands of pages of complex contract legal document, can be performed in a location independent manner anywhere in the world. Where more interaction is required than a simple email, new collaboration technologies such as web-conferencing or videoconferencing further ensure audio-visual interaction to help agents work

correctly to achieve the desired end result. This dramatically reduces both cycle time and cost.

Take the case of Evalueserve, a Knowledge Process Outsourcing (KPO) firm. It has 2500 research staff that are spread across China, Chile, India and Romania, and provides custom offshore research and analytics services.

WNS² is another shining example of an innovative global outsourcing play. They have succeeded by imagining the future, doing sheer hard work and reaping value from cost arbitrage. Founded in 1996, with Warburg Pincus as its the major shareholder, this \$500M organization has 21,000 employees in its network of 22 global delivery centers in India, Sri Lanka, Philippines, Romania USA and the UK, with the last two being customer facing centers. WNS has been a frontrunner in recognizing the implications of labor cost arbitrage and the interchangeability of skills that are available around the world. With properly managed knowledge transference, they are able to transfer any kind of knowledge work done by a particular individual to his or her surrogate, i.e., a lower cost individual in another country.

How can Companies Leverage this KPO Trend?

Beyond the leverage of simple IT programming, knowledge outsourcing requires a much higher degree of attention to ensure protection of key intellectual assets. Embedded in the knowledge are often core components of what finally constitutes the company's end product. Protection of these knowledge activities is essentially protection of the proprietary knowledge and intellectual property of the company. Leading organizations such as Intel, IBM, SAP and Procter & Gamble are all trying to figure out how to protect their intellectual property, while sourcing globally. Intel, as an example, has major chip design centers in Santa Clara and Bangalore, and essentially manages this as a single global complex for its chip design. The entire process is managed from Santa Clara and the initial conceptualization and the final complete blueprint assembly can only be done in Santa Clara. Having global teams dramatically reduces both cost and cycle times, something that has become a competitive necessity now.

ITO, BPO, KPO Sourcing Destinations

India is at the forefront of the global IT and related outsourcing of work, which is also referred to as offshoring. India has a natural advantage in this

² http://www.wns.com/Portals/0/WNS_Corporate_Factsheet_January,2009.pdf.

area, in having a very large English-speaking workforce, unlike the smaller population bases of Japan, Korea and Taiwan. With a highly rigorous education system as well as being the world's largest English-speaking nation, India produces the highest number of college graduates in the world, and more than twice the engineers, scientists and other technical degree graduates than the US. In addition, the Indian government has provided a host of incentives to drive this industry and further the entrance of its vast productive human resources into the global workforce. These include tax holidays on IT related exports and setting up of special export zones with ready infrastructure for start ups. Being half a world apart from the major consuming nations in the west, India has the ability to best leverage the 'follow the sun' philosophy. Democracy, a modern infrastructure, a highly trained workforce and an overall cost of 1/5th of that of the G7 nations has made India a compelling location for sourcing key components and allowed it to capture about 80 per cent of the whitecollar offshoring work.

Many other countries have tried to copy the success of India. The world is embarking on specialized English training from Brazil to Russia and China, with the latter targeting at least 100 million fluent English trained workforce by 2015.

Almost every country, including India, now recognizes the key elements for successful global knowledge sourcing. These are:

- A robust infrastructure of airports, telecommunications and road transport.
- Ease of doing business in the country.
- Protection of intellectual property.
- Strong education system that can customize their training to meet the emerging demands of the industry.
- Reduced barriers for cross border trade and exchange of goods and information.

As a result, one can see massive investments in airports, roads, telecom infrastructures in all these developing nations, including the BRIC nations, Eastern Europe and SE Asia. Other countries with slightly lower cost structures than the G7, are also aggressively courting the G7 for this work. Countries such as Mexico, which has proximity to the US, is in the same time zone, and is able to provide Spanish language capabilities to the US and all of Latin America, Australia which has similar culture and feel as the Western countries, and Scotland and Ireland with natural connections to the UK, are among these.

In addition, countries like Israel and South Africa have been at the forefront of developing leading technologies and software for over 25

years. Russia has excellence in very complex engineering and mathematics and makes additional expertise available through the Russian Academy of Sciences. Eastern Europe provides a fantastic destination for Western Europe since they have European language speaking professionals, i.e., French and German. No wonder that IBM, the largest player in the global sourcing business, uses over 25 countries from which it sources personnel to support various time, language, IT and business processes requirements of its customers.

PROTECTION OF INTELLECTUAL PROPERTY

Knowledge is power. This phrase has an even greater meaning in today's cutthroat competitive world. Every company is hot on the heels of a successful company to find ways to quickly duplicate the winning formula. This has also led to the rise of intellectual property related crimes like stealing of key code in operating systems. There are instances of scientists and key executives being sued to prevent them from working for their competitors and thereby causing strategic damage to the host company, which may have invested large sums of money perfecting a technology. Even while going down a certain competitive path, its pre-emptive knowledge becoming available to a competitor could be very damaging.³

Other than basic manufacturing or processing, almost all companies have some specific knowledge, expertise or intellectual property that gives them their distinctive position in the marketplace. This includes things such as customer lists, key technologies, manufacturing techniques, customer preferences and the like. Unauthorized access or compromise of this information can do greater damage to a company than anything within their own operations such as product delays or inconsistent product performance.

Protection of intellectual property, core competencies and knowledge assets is even more complex in a global environment where work is now split across countries and also across vendors and partners. Companies need to pay careful attention to deciding what can be sourced from a vendor, versus what can be sourced from a strategic partner, and finally, what should be done within the walls of the corporation. One should also be aware that job markets in the developing economies are much more vibrant than the developed economies, and individuals who have access to key components and technologies could compromise it by leaving the

³ Examples include GM suing a key executive who went to Volkswagen, and IBM preventing a key executive from joining Dell.

company and themselves becoming a competitor. While several countries have a strong judicial system, such as India, in many other places in the developing world, finding individuals and getting the cases heard in a reasonable amount of time is sometimes difficult.

Balancing Partnering versus Vendor Sourcing

It is always tricky to decide what should be sourced and what shouldn't. Some pointers in terms of sourcing are relatively simplistic. Companies should not source functions or processes which are core to what makes them tick. What are considered core or distinctive competencies are best maintained and nurtured in-house. The challenge often is to decide whether the company should source things from a vendor in a simple supplier-buyer relationship, or be involved in a more strategic partnering arrangement, which could include co-sourcing and joint ventures.

In general, it makes sense to maintain a multi-vendor philosophy, unless there is a co-sourcing agreement between companies, where each company essentially agrees to source services from the other and not be in duplicative space. As an example, the agreement between AT&T and IBM, though it consists of separate contracts, resembles a co-sourcing arrangement where IBM buys most of its telecommunications related services from AT&T, and in turn, AT&T buys all its IT related services from IBM. Under such an agreement, a single vendor philosophy can work well, since the relationships are managed at the highest levels of the organization, and in effect, resemble a partnership without it being a true partnership and still be consistent with legislative requirements of independence.

Partnering and sourcing have a major role to play where companies are looking at having a global footprint. We have already pointed out that almost no company has the resources to effectively perform all its value activities at the global level and be successful in all the markets at the same time. It needs to leverage the resources of partners and vendors. Companies should consider partners where they bring a capability that is complementary, and can help both parties attain a better strategic position if they collaborated over a long period of time. This kind of collaboration ensures continuity, and perhaps exclusivity that provides a better strategic capability to both firms. Simple vendor sourcing would be the norm for interchangeable parts that can be easily sourced from a variety of providers and do not provide any strategic impact, other than a convenience factor for lower costing and resource leverage.

We will detail specific processes and functions that a company should consider while sourcing from external providers in Chapters 8 and 9.

Sensitivity to Geo-political Situations

The Japanese companies have made some of the smartest moves to become geo-politically sensitive. When the US auto industry went through trying times in the early 1980s, the US government put quotas on the number of cars that could be imported from a particular country before punitive tariffs were applied. If the Japanese did not respond to the situation, they would have seen their share of the US auto market rapidly decline from around 30 per cent to 15 per cent. The Japanese auto companies implemented aggressive programs to expand their operations in the US. This included setting up of joint ventures with major US manufacturers, such as the Toyota and GM partnership that yielded the Saturn car. Over time, almost every Japanese, Korean and German car manufacturer has set up assembly plants in the US that employ local Americans. This not only reduces their costs, since the tariffs on auto parts are significantly lower than a full imported car, but also provides employment to millions of Americans. This also means that protectionist actions against these companies will not have much support, even within the US, where they employ large number of people to provide parts, assemble the cars and work as sales and servicing staff in dealerships.

Similarly, companies who are big in IT offshoring or manufacturing, need to pay attention to geo-political sensitivities and manage the negative press associated with job displacement.

From a sourcing standpoint, companies also need to be sensitive to where their services are being sourced from. There was much hoopla in the 1990s, when the US flags sold at Walmart were actually sourced from China and Taiwan. Obviously, that didn't last very long and today almost all flags sold in the US are manufactured in the US, albeit at a much higher cost than if they were sourced from China. Similarly, even though companies from another country can provide a much better value proposition, one needs to take a look at the general political tone and relations with that country and whether certain measures would be acceptable to the Government and the people of the nation at large. Managing the negative press arising out of any such situation, is not worth the headache or the savings that any such deal could result in.

Ensuring Integration Across Islands of Sourcing

Sourcing relationships are becoming increasingly complex. While sourcing saves money, it cannot compromise the reliability of the services that are contained within the basket. Therefore, companies must ensure smooth operations and integration with the rest of their operations. Today, it is not uncommon for larger corporations to have hundreds, if not thousands of partners and suppliers. Luckily, comprehensive IT systems can help manage the complexity of these relationships and can tie together systems so that all the partners and providers operate in unison within an integrated value web, much like the very large corporations of today.

Ensuring Redundancy

When there are glitches in manufacturing, it often delays completion of a few products. This can be made up for by expediting work after the broken machine or system is fixed. Companies in manufacturing are also able to manage risk associated with this through multi-sourcing and comprehensive inventory management systems that allow some additional slack within the system. However, when IT systems are sourced, reliability becomes a much more important factor. Over time, the very lifeblood of companies runs through the IT systems. Any critical system failure can quickly result in a loss of millions of dollars and create negative press for the company. Improper display of results during the 1996 Olympics gave both the International Olympic Committee and IBM, the sole IT services provider for the Olympics, a black-eye that took quite a while to heal. Companies such as American Express track the losses associated with any downtime on their credit approval system since it can result in millions of dollars of denied transactions during peak retailing periods. Keeping these in mind, companies need to plan for geo-DR, or 'geographically independent disaster recovery' and other redundancy practices so they can continue their operations from another location in case of failure of systems of outage of a facility.

Many companies, particularly those that provide core infrastructure for a nation, such as telecom companies, plan for such contingencies. Within the system themselves, aircraft manufacturers plan for redundancy that virtually eliminates total systems failure, regardless of the complexity of adversarial situations that may occur.

Value Migration

Value migration to lower cost and higher ROC (return on capital) destinations, is inevitable. However, aggressive companies can proactively harness the advantage of this skilled global human capital through innovation and technology. As value is captured in these economies that provide human capital, it no doubt increases the GDP of these nations and with it ushers in a demand for the same products and services that were previously mass consumed in the West. As an example, demand for

automobiles in China, which was close to zero in 1990, will be the largest in the world this year!

While some day, we will have total free trade between nations, today bilateral trade barriers still exist. Companies have to recognize this and need to take a long-term view to see how they can benefit. For instance, as the demand for air travel soared in China and it promised to be second largest buyer of new aircrafts, Airbus agreed to source major components of the aircraft from China as a part of a bilateral trade agreement. Under this, it was agreed that China would buy a very large percentage of its aircrafts from Airbus. China also sought transfer of technology, which it did get, within the agreement. While Airbus agreed to this proposition, Boeing did not, and therefore, lost the opportunity to be a major player in the Chinese skies. China clearly intends to be a major player in the global aerospace industry in times to come, due to its increasing needs for air transport. Similarly, Boeing sources fuselage and major components from Mitsubishi in Japan, a country under US protectorate, where they believe they can protect their intellectual property.

We can take a similar example of cell phone manufacturing, which started in the US and then moved to Europe, Japan, and finally to Taiwan and Korea. China and India that account for half of the world's cell phone demand, and are the major growing markets which will add another one billion over the next five years. The message is clear. Manufacturing capacity has to be moved to China and India to meet local market demands and avoid paying any import duties. Nokia already did this, albeit five years after they should have, and now have plants in India and China that are stamping out cell phones to meet local country demands.

Take the case of the health care industry. As the capacity and capability of Indian hospitals are increasing to world-class standards, they are attracting patients from around the world. Sometimes referred to as medical tourism, it does have the attributes of tourism. With costs less than 1/5th of that in the West, and with no waiting time for major surgeries (as compared 12 months or more in the UK), the patients enjoy much lower costs and much better post-operative care and nursing. In addition, during the postoperative recuperating period, many patients chose to spend a fortnight at the sunny beaches of Goa before returning to the UK or the Gulf. Today, patients from UK, Europe, the Mideast, and even the US, routinely travel to India for complex open-heart surgeries and the like. All this has been possible due to enterprising NRI doctors in the US and UK who moved back to India and brought with them the expertise and capital to set up ultramodern facilities here. This is also a win-win situation for many other American and European companies, such as GE and Siemens that provide medical equipment to all Indian hospitals with diagnostic and surgical facilities and this has dramatically increased their sales.

In a sense, the world is making a full circle. Fifty years ago, the G7 were the major sourcing providers for all manufactured and intellectual goods. Cars, planes, trains, medical equipment and technology, household and luxury goods, and even basic food grains such as wheat and beverages were sourced by most of the then underdeveloped countries from the G7 nations. Now, the G7 is sourcing major components of almost everything that is manufactured from the developing nations in Asia, Eastern Europe and South America. This is an incredibly opportune time for companies to lead the way rather than be run over. Those who lead can reap the benefits of selling their products to a population base five to 10 times larger than they are currently serving, and may even be able to extend their products and services as they learn to innovate in these new markets.

SUMMARY OF KEY THEMES

- 1. In the quest of maximizing profit, businesses are always looking at minimizing their cost for production, whether it be for manufactured goods or for services. There is an increasing trend of outsourcing, which goes far beyond manufacturing, and extends into business process and knowledge outsourcing.
- 2. While manufacturing best leverages human capital for lower cost labor, IT and knowledge related activities redefine the valuecreating paradigm through reduced cycle times and knowledge leverage from around the world.
- 3. The concepts of strategic sourcing has now been embraced by almost all industries and services such as education, health care, media and entertainment, legal and financial sectors.
- 4. Value migration to lower cost and higher ROC (return on capital) destinations, is inevitable. The winners in this game would be those companies that identify early and act even earlier than the rest to stay ahead of the new opportunity trajectory.

EIGHT

Dynamic Value Integration

The team with the best players wins...

Jack Welch

A S IN THE MOVIES, when we reach the midpoint, the plot thickens and the mystery becomes so riveting that the viewer wants to know the answers as soon as possible. So too, in our story of global upheavals, disruptive technologies and how it is destroying traditional value in many industries, while creating value in others, we have reached the midpoint. We will now discuss in detail how various companies are positioned from the global perspective and what actions they can take to position themselves for success.

Like most performance measures that are successful and adopted by a wide range of firms and enterprises across geographies, the basic criteria has to be simplicity, universal adaptability and deep rigor behind its postulations. We have developed the Global Index, which is a simple, yet elegant and complete measure for a company's global positioning. We discussed this in detail in Chapter 4 and will elaborate on this measure for each global model.

The basic purpose of any enterprise is to add value; simply put, to convert raw materials into useful products or services that the customers are willing to pay for. In order to do this, the enterprise will have to procure, produce, manage logistics, and also run several supporting activities, such as human resources planning and finance among others. All these constitute parts of the value creation activity, which the enterprise has to either do by itself or leverage resources from its supplier, partners or collaborators.

While global trade existed for centuries along the silk routes and spice routes, the mechanisms were relatively stable and slow. The suppliers were few and middlemen were important in establishing the link between the buyer and supplier. Early explorers and sea-faring nations used their capabilities to link lands far away to bring suppliers and buyers together. The intermediaries zealously prevented the suppliers from interacting directly with the buyers, which ensured their ongoing propagation. This protectionism was often guarded with the power of the gun, as we have seen in many examples, such as the East India Company, which resulted in the colonization of India by the British, the tea trade from Britain to the US, which led to revolt and the dumping of huge amounts of tea into the sea, an episode known in history as the Boston Tea Party, and the opium wars that resulted in China acceding Hong Kong to the British.

TECHNOLOGY IS OUR SAVIOR

Global traders and explorers are no longer at the mercy of slow winds of the horse latitudes, or the storms on the high seas, due to which many a bounty has sunk to the depths of the oceans and taken with it precious lives. Even simple information flow from one part of the world to another often took months, if not years, till as recently as the early 20th century. Today, global trade is occurring at the speed of light, as electronic tickers buzz through the Internet incessantly. Billions of dollars of goods, stocks and merchandise are traded across country boundaries every minute.

Modern technology and trade have created a new chapter of buyer and supplier relations, in a much more democratic setup. Business requirements now typically dictate that the supplier has to be more than a simple supplier of parts and an active part of the value chain, often performing activities such as design and engineering for key components, retailing in select markets, or managing logistics globally.

Electronic marketplaces that bring together thousands of buyers and suppliers have existed for a long time. However, in most of these cases, there is no customization and buyers simply buy the products advertised by the sellers. While initially handled through personal communications and market makers, stock exchanges are now a good example of massive electronic trading between buyers and sellers where securities or commodities are traded. eBay is another excellent example of bringing together individuals who can make their goods available to a large group of consumers through the Internet. However, these are all relatively static models, since the goods to be exchanged already exist, and may not have any additional requirements for delivery times and quality. When goods or services have to meet specific customer requirements for quality, delivery times, price, etc. the level of complexity rises by several orders of magnitude.

In order to meet specific requirements of quality and timeliness, companies, till as recently as five years ago, ensured that they had direct control over the key components of the value chain. In most cases, many of the capabilities were either owned by them, or were sourced through captive units dedicated to production for a single company. However, with better communications and interconnectivity, both buyers and suppliers have become increasingly astute in seeking additional avenues for further cost reduction, quality enhancement and risk mitigation. In a world with freely available information, where consumers have a choice, companies must execute with precision. Simple slippages, such as missed deadlines, can be very costly in terms of missed opportunities, e.g., a missed shipment of golfing equipment or apparel for a special Father's day sale could be devastating for the retailer.

DAWN OF A NEW AGE OF DYNAMIC VALUE INTEGRATION

Technology now allows participants in the value chain to selectively see the forecast, requirements and delivery schedules, something that was almost impossible earlier. Since computer systems can integrate information across multiple companies, a whole range of intermediaries and manufacturers can participate in the value chain. Through pre-qualified arrangements, companies can participate in electronic auctions and can dynamically view and integrate a whole range of suppliers into their value chains. Logistics companies, in turn, can manage entire production and delivery schedules across multiple factories and countries, and can schedule ships, trucks and aircrafts to deliver products to retailers or customers in a just-in-time mode with minimal inventory in the system. Today, UPS manages the global logistics for JC Penney, allowing JC Penney to focus on its core expertise of retailing, while UPS can apply is logistics expertise to manage production schedules and delivery across thousands of factories and stores dispersed globally.

With the rise of global sourcing, companies raced to set up their own offices in low cost countries such as China, India and those of Eastern Europe. However, in an environment of increasing global competition, coupled with a global economic slowdown, companies are looking at ways to further reduce costs.

Li and Fung, a 100 year old Hong Kong based company, is an excellent example of a re-intermediary in the digital age. While a particular retailer may be working with a few dozen, or perhaps a hundred or so suppliers at the most, Li and Fung has relationships with over 10,000 suppliers, all tied together in its electronic databases and with negotiated terms and conditions that meet the most stringent requirements. The relationships and expertise in the inner workings, distribution systems and logistics of China are very valuable to retailers, whether small or large. As a result, many retailers, including Walmart, Target and Liz Clairborne let Li and Fung manage large chunks of their sourcing and supplier management at a much lower cost. In effect, Li and Fung is a sourcing re-intermediary or broker that can manage the supplier network across its entire base of hundreds of customers, thereby resulting in a cost structure that is much lower than what a single company can accomplish by itself. With electronic systems in place, Li and Fung and the end customer, such as Target, can track production, delivery dates and settlements electronically. In addition, Li and Fung has the ability to source the same product from many different suppliers, and can use the one that provides the best cost associated with delivery dates. Li and Fung is, therefore, a **dynamic value integrator**.

Who is Doing it Right in the Global Context?

Every company and every industry has different dynamics and the winning strategies of everyone are likely to be different. We have described four major global models, and there are enough large players who have been operating with a global footprint that they have refined over a long period of time. This would suggest that atleast some, if not all would have figured out how to succeed. So, which companies are winning globally and are positioned to succeed on an ongoing basis? This brings us to the obvious question:

Who is doing it right?

To answer this question, we will examine the global footprint of each of the major business models using the Global Index that we described earlier in Chapter 4. One would be tempted to think that the mega MNCs which control all their resources and have large amount of money to invest are perhaps doing it well. In fact, while they may be successful in few of their large G10 markets, they, by and large, have a relatively low GI and are not well positioned for future success.

Other than a few rare exceptions, almost every company and every operating model has a relatively low GI. So,

Nobody is doing it right!

The rare notable exceptions are a few companies, such as Coca Cola, Pepsi and Nokia, which do many things right from a global perspective. Firstly, they have a global footprint or at least a footprint in all the major and

emerging markets. Secondly, they invest heavily with a long-term view in new markets. Beyond that, they localize their products, leverage local talent pools and partner with local companies that are a part of their value web, e.g. bottlers, distributors, advertisers and celebrities, in the case of the beverage companies. They leverage best practices and processes from around the world and have the right business operating metrics, based on locking in customer value over the long-term rather than being financially driven for profits in the short-term.

This creates the winning formula: take a long-term approach, be flexible while adjusting to local market conditions and leverage the local market resources extensively. Coca Cola invested heavily in India in 1991, and it was not until 2008 that they turned in their first profit from the India operations. Driving sales in a country, which is likely to be the most populous by 2025, holds a great promise for a company that now has declining sales for its core products in its developed markets.

GLOBAL VALUE WEBS: A PREAMBLE STRATEGY

Create a Constituency of Value Creators

Any organization, big or small, which wants to create a global enterprise, must establish a broad range of partners who fit in its value chain, whom they can link to and leverage as and when they require. Often, capabilities of such partners can be leveraged at marginal costs. By having multiple partners or suppliers that can provide the same capability, the company can dynamically switch partners, and, in effect, end up with a dynamic value web. This allows a company to shop for the best deals, at any particular point in time, and shift participants in the value system, based on who provides the best advantage at a particular time. Costco, a discount, members-only warehouse retailer, and one of the most successful retailers in recent times, follows this strategy. It has a multitude of suppliers, and often negotiates unusual deals and passes on those products at incredible discounts to customers. Many of these are one-time deals, never to be repeated, but provide exceptional value. Costco uses a dynamic sourcing strategy, based on realizing the best value at a particular point in time and its suppliers' base changes constantly, unlike in the manufacturing industry where the supplier base is relatively stable.

Use Technology to Link and Tap the Entire Value Ecosystem

The core firm must have the ability to dynamically link capabilities of its value web participants. Only then will it be able to harness its power at the drop of a hat, and leverage it on a need basis. The core firm is the one whose brand the customers recognize when deriving value from the product, and is the one they want to maintain the key touch point with.

If you do this, what advantages will you realize?

This preamble strategy can often result in purchases based on marginal costing, while providing dynamic compilation of unusual value propositions, e.g., custom insurance and investment strategies for customers. It also provides the core firm enough space for maneuverability, flexibility and risk management, since its own resources are not tied to investment intensive actions across the full value web. In addition, co-branding can also be used if it provides additional advantage. This is seen with many large MNCs, who enter new markets and partner with a local company that has incredible brand recognition (as defined in our Partnering MNC and Reverse Global models). Leading MBA schools from the US and England are now offering their programs through local universities in many countries. This is through a co-branding of the local university and the internationally recognized MBA program. This preamble strategy leads to a building of expertise and excellence across the entire value web. This strategy also results in a win-win for other participants, since they can play in multiple value webs with other partners and maximize their asset utilization and returns on investment.

ENHANCING THE GI IN EACH GLOBAL MODEL

Let us now examine some existing operating models and assess their GI scores along all the eight parameters. We will also prescribe the potential GI these companies can achieve by exercising global value web strategies.

Model 1—MNCs with Asset Control

MNCs ordinarily have a tendency to drive and control everything from their corporate headquarters. Other than a few rare exceptions described above, most of them have a relatively small GI, as depicted in Figure 8.1. While they may be successful in the short-term, they are not so positioned for the long-term. Walmart is a notable example of such an MNC. It thought that since it was the largest company in the world and built an unmatched and successful retailing business, beginning around 1980, it could conquer the world. It, however, learnt a hard lesson in both Germany

and South Korea, where it lost huge amounts of money, and finally chose to withdraw from these markets.



(Inner web shows current state, outer web shows the desired measure as an example)

While an individual company may depict a slightly different score or reasoning for a specific footprint for their GI, the scores in the chart and the reasoning behind why a company is at a current performance level, are by and large true as depicted in Table 8.1 below.

MNCs with asset control	Current score	Easily attainable	Why today?
Revenue	3	5	Most of the revenue comes from home or traditional markets, due to risk aversion or lack of knowledge of new markets; they often see local competitors with much less capability flourishing.
Processes	3	4	Tendency to centralize and push common processes, globally, in order to manage cost and scale attributes.
Innovation	2	4	Tendency to push products developed in their traditional markets into new markets without proper understanding of the market idiosyncrasies or customer tastes and preferences.

 Table 8.1:
 GI positioning for MNCs with asset control

Contd ...

... Table 8.1 Contd

MNCs with	Current	Easily	
asset control	score	attainable	Why today?
Objectives	2	4	Often objectives are defined at corporate headquarters by executives who have no experience of the new or global markets. Additional pressures from the stock market often push the objectives to those of their home markets in terms of growth, market share and margins, something, which is incongruous with the local markets.
Human capita	I 3	5	Usually, headquarters control all knowledge and expertise, resulting in only low value-add components being exploited outside their home turf. This further results in a master slave relationship rather than a global human capital base where the best talent can be leveraged.
Metrics	3	4	The finance team from headquarters tends to drive the global numbers based on experience derived from operations in traditional markets, which may be inconsistent with the newer market realities.
Localization	1	4	The belief that a product successful in traditional markets will be so in newer markets, often results in the best products failing, since another market may not have a demand for the same products. People, cultures, requirements are different around the world and many countries are far more heterogeneous than the G7, which within themselves tend of be relatively homogeneous.
Leadership	2	5	Headquarters are the fountainhead of all knowledge; this thought leads to a status quo in order to hold on to power by a select few, and immature global organizations fail to develop global leadership teams.

The good news is that, as long as managements have the foresight and are accommodating, they can significantly enhance their GI and their chances of sustained global success by making some very simple adjustments in their operations, most of which will require little to no additional investment. The biggest investment required is to listen to voices from around the world and learn from them.

How can Large MNCs Enhance their GI?

Some of the simple steps that large MNCs can take to enhance their GI, and thereby their chances of global success are:

- Revenue—With increasing free trade around the world, MNCs need to take a long-term view and invest aggressively in emerging markets where the action will be in the next 10 years, rather than just look at the next one to three years. One also needs to understand and embrace market entry strategies, which require investments, patience and may have lower yields during incubation or the period of market development. In this regard, Vodafone is a notable example where it invested heavily to buy out Hutch's cell phone business in India for \$18 billion in 2006. The market was still in its infancy with less than 40 million connections. It has now taken off, and in just four years since its acquisition, the market has reached 500 million connections, and is well on its way to 800 million connections in the next five years. This makes India, one of the most lucrative and largest telecom markets in the world. Similarly, Coke and Pepsi invested heavily in Russia, China and India, and spent billions of dollars over decades to promote their products, often absorbing losses for 10 to 15 years before they were able to turn these populous markets into profitable ones.
- **Processes**—Business practices and how things are bought, distributed, produced and sold differ in each country, depending on local practices and regulations. Designing a system that is based on reliable logistics and delivery schedules of one to two days, as in the US, would be a total failure, if a company sets up a manufacturing plant in China or India where the infrastructure and processes are not as robust, and the ability to meet the one to two days timeline with 100 per cent reliability is virtually impossible.
- Innovation—To effectively capture local markets, companies need to invest time and money to study the local market tastes, preferences, market segments, price points, competitors and how and what customers buy. They then need to link this to their product strategy to ensure that the product brings out the unique attributes that customize all the elements to the local market requirements. As an example, Kellogg's sells individual serving size corn flakes in markets where affordability is lower. This is almost impossible in the US where everything is sold in large boxes at much higher prices.
- **Objectives**—Very often, one sees local operations that are at crosses with the headquarters, since the objectives laid down for them are almost impossible to achieve as they do not reflect the local market realities. Mature organizations promote local participation in setting up global objectives to ensure they are consistent and achievable within the overall corporate framework.

- Human capital—We need to think of ourselves as participants in a global community and move away from parochialism. When this is done, a new chapter of co-operation and exchange emerges, where everyone respects the knowledge of every other individual. Only then is it possible to develop local talent everywhere. Companies need to think of themselves as trans-nationals rather than extensions of headquarters.
- **Metrics**—Metrics need to be aligned with the specific function the local market is performing, and needs to be consistent with local market realities and the stage of growth the company and local market are in. In addition, there needs to be the right interlock with global operations to ensure that the local operation is properly supported, in terms of sourcing, knowledge transference and all other capabilities they need for success.
- Localization—Products need to have a local flavor. Cell phones in China and India have Chinese and various Indian language characters, respectively, to support local language texts. Companies can gain additional leverage if they involve local market experts in the customization, and if they go even further, i.e. to set up local manufacturing capabilities, then they can be far more responsive to local market requirements and appear genuinely local.
- Leadership—Companies need to identify individuals that belong to the leadership wedge and manage this talent pool globally, including opportunities for growth just as several leaders do. Unilever is one such example.

Strategies for MNCs with Asset Control

As we can see above, the very premise of the global value web preamble strategy is built on striking a fine balance of trust and opportunity. Unfortunately, the global players with big brands and deep pockets sometimes feel it is below them to collaborate. Certainly protecting intellectual property is important, but not one's false ego! Nobody has a monopoly on ideas, knowledge or knowhow. Over time, others will figure it out, and could very well beat these companies at their own game. Instead of thinking about 'us' versus 'them', it is imperative to see how one can gain more power from the knowledge and resources of others. An old adage come to mind—'*those who listen actually gather more knowledge*' because they have the benefit of collective knowledge of all those who they listened to, while those who only speak, if lucky, are only likely to know what they already knew.

For global players, the GVW gives a unique opportunity to harness globally dispersed resources without any dent on their balance sheets. They must begin traveling this path and the first step is to trust their new partners and consider them a part of their game plan. Global players must also establish their global leadership team that has diversity of representation from across the countries or major markets in which they play. They should also be open to co-branding and joint management of operations with local partners who can bring greater expertise on local markets, distribution systems and customer access. Suzuki's success as the world largest small car maker, or Honda's success with two wheelers in new markets can all be traced back to tapping the expertise of a local partner for co-branding, co-creation, co-production and co-management of operations. This, in fact, is what our second model, 'Partnering MNCs is all about, and in our view, it is the more sustainable business model over the longer term.

So if you do this, what will it do for you?

Very simply, the global player adds to its capacity and capability without any significant investment and ensures better risk management during wild economic and market swings. The money that this saves can be used to further extend its global footprint into newer emerging markets, additional product development and localization—all factors key to success.

Model 2—Partnering MNCs

Figure 8.2 shows the current and potential GI for mega players that are open to executing a global strategy by partnering with local players. Ordinarily, if they are large MNCs themselves, then they seek the biggest local players to help them succeed quickly in their new markets. Execution is slow initially, since both the mega players take time to negotiate the nuances of the deal that will ensure a sustaining partnership. IBM's partnership with Tata that resulted in TISL, for its renewed market entry into India in 1992, failed miserably since the two companies, both behemoths on their own turf, ended up having competitive and divergent objectives. The relationship did not survive even for a decade. On the other hand, Suzuki's partnership with the Indian Government, in the form of Maruti Suzuki, has been successful for more than quarter of a century, and is till going strong. A critical success factor for this model is to ensure that the two parties do not have divergent objectives.

FIGURE 8.2



Additional details of the current footprint are detailed in Table 8.2 below.

Partnering MNCs	Current score	Easily attainable	Why?
Revenue	2	5	Most of the revenue of these companies comes from the home base and partnering is in its infancy due to many issues, such as trust that need to be worked out.
Processes	2	5	Each partner has its own set of processes, often optimized for its particular industry. So, when a retailer and a telecom company partner in a new venture to sell general merchandize, it does pose problems in choosing the right processes that will best suit the venture.
Innovation	2	5	Most of the product expertise is provided by the partner trying to spread its wings. Therefore, only a limited amount of local expertise is currently being applied. This model has been tried at a mega-level only recently.
Objectives	3	4	Since the partners are usually both powerful, one an MNC with great products and technology, and the other with local knowledge and customer reach, getting a congruence on objectives is often difficult, at least in the near term.

 Table 8.2:
 GI positioning for partnering MNCs

Contd ...

Dartnoring	Current	Facily	
MNCs	score	attainable	Why?
Human capital	2	5	Assembling the right teams that leverage the strengths of both sides is a difficult task. To manage costs, the MNC wants to move as little resources as practical to the new local market, and often the local partner does not have all the expertise required to effectively sell the MNC's products and services.
Metrics	2	4	Strong partners on both sides can potentially have divergent metrics, and agreeing to a common set of objectives and metrics that will work is somewhat difficult, at least in the incubation period, since neither side has enough experience on what will actually work for the new product within the new local market.
Localizatio	n 2	5	The MNC will have a tendency to minimize its expenditures in product localization and will try to push their standard product through.
Leadership	3	5	The partners must set the foundation to avoid contention and promote cooperation and coordinated objectives.

... Table 8.2 Contd

While this model has great advantages in its ability to leverage local expertise and talent, it is essential that the objectives and metrics are coordinated among the partners.

How Partnering MNCs can Enhance their GI?

Getting two elephants to dance together in a perfect waltz takes more than a simple agreement. Beyond the metaphor, this does require the two heavyweights to trust each other, listen to each other and harness the strengths of each other, while at the same time having enough ability to challenge and push each other to stretch goals and objectives. In this model, the two partnering companies have a greater advantage in terms of rapid deployment and success than what a single large MNC can achieve by spreading its own wings. When an MNC tries to do everything itself, it has to make all the investments in the new markets and systematically solve the problems as they arise. In this case, each player already knows its specific competencies, one with knowledge and knowhow of its products and services or business models, other with customer access and astute awareness of the ways of business within the local market.

Complementary co-ordination is the key to success and can be attenuated by using the following steps:

- **Revenue**—Both the companies need to examine their strengths and push for far-reaching, but realistic goals. Having products that customers have been hungry for, but could not get easily in the past, and suddenly having access to a new customer base hungry for your products is like a marriage made in heaven. Axa, a major insurance company that had global aspirations, has by and large, chosen this strategy to quickly push its products in markets where they can grow with minimal investment and risk. While they did acquire a focused insurance company, Equitable, in the US, they partnered with Wurtherland in Asia and with Bharti Airtel in India. Bharti is a major telecom player that has 100 million customers, something every company would want to access quickly. Incidentally, Walmart has also chosen to partner with the very same Bharti Corporation in order to make its retailing entry into India. With rapid access to customers who can now buy a comprehensive range of new products and services previously only available in the G7, these companies should seek aggressive growth rates and market penetration. There is no room for risk managed linear thinking here-this is about believing in what you have, and challenging the sales and delivery arms to drive aggressive growth numbers before another competitor preempts you.
- **Processes**—Each partner has its own set of process expertise and you simply can't lift the best-in-class processes and apply them. Instead, one needs to see which processes can be leveraged, and then needs to correctly engineer those that will be most suitable for the joint operation. Staying with our example of Bharti Axa for insurance, it would be inappropriate to simply market the Axa insurance products using Bharti's sales processes. Bharti's Airtel division that has the largest customer access, sells mobile telephony services, which tend to be 'bought' products, which are relatively standard, whereas insurance products, particularly life and asset protection are 'sold' products, which are highly customized. The attributes of 'bought' versus 'sold' products are fundamentally different. Such aspects need to be taken into consideration and new processes need to be defined so that product launches and ongoing support are successful.
- Innovation—Unlike the first model of MNCs who go at it alone, here the partnering MNC can rapidly leverage the market knowledge of the local partner, identify the value attributes that are likely to be important and have a high probability of getting it right the first time around. Innovation is not limited to the product itself, but exist in all the processes associated with packaging, selling and

supporting the product. Usually, new markets demand lower cost structures and the existing expertise of the local partner needs to be leveraged to take cost out of the system, and wherever practical, to make the product more attractive to the end customer. Proper cobranding is also important in the overall imagery and appeal to the end consumer.

- **Objectives**—The partnership operation should be run essentially as a standalone business unit. Therefore, the objectives should not be set in a vacuum by a joint agreement of the senior leadership of the two partnering entities. Instead, it should be done in concert with the leadership of the business unit that will be charged to deliver on the objectives. Within a new entity, the business unit needs to be treated as a start-up operation and the management provided with the necessary nurturing, flexibility and latitude in decision making, so they can be successful. Reward systems need to be aligned with this stage of the operation.
- Human capital—A local operation of an MNC should smell and feel like a local operation. Because of local market costing pressures, the operation essentially has to be self-sufficient with only local human capital. However, the taste in the mouth of the customer should be that of the best of both the worlds—excellence in product and excellence in local market delivery, support and care. Delivering on two excellence dimensions without having past experience for a particular product in a local market, is not easy. The MNC needs to transfer product, product-selling and other knowledge to the local teams, who then need to internalize it for the local market conditions so that the touch and feel is genuinely local.
- Metrics—As we mentioned earlier in this section, the operation in partnership needs to be managed as a standalone business with the same operating parameters as one would use at various stages of a business cycle. Success in newer markets often takes time, and therefore, the incubation period needs to be defined appropriately. Finally, it is quite likely that the growth rates and margins may need to be adjusted to local market conditions and will likely be lower than in developed markets, simply because consumers have less disposable incomes. In addition, the company entering the market needs to put additional metrics focused on product localization, training and knowledge transference, all of which are important for success. In many of the outsourcing and offshore operations, companies had a relatively bad experience and wrote off the model since there was no commitment to transfer of knowledge. The problem was additionally compounded in such a case since the

very individuals that had the knowledge to be transferred could themselves lose their jobs to the very persons they transferred the knowledge to, offshore. In this case of partnering, the individual transferring the knowledge need not have any such fears since the operations in the home country are still protected, and if anything, the group now has additional responsibility for emerging markets, beyond their traditional markets.

- Localization—Insights of the local partner are invaluable in such a case, particularly in defining the packaging, pricing, advertising, and finally for customer acquisition. In case of experiential products, e.g. food, additional testing may be required before formally introducing the products.
- Leadership—This model provides the maximum advantage in terms of leadership, since leadership required to run the successful operation exists between a combination of the two companies. However, there is always the challenge of one-upmanship. In order to protect against this, a management team that embraces progressive management techniques should be handpicked for the initial operations. Once the operation is in a steady state, it will have its own culture and style, which will be a combination of the strengths of both the companies.

Strategies for Partnering MNCs

Firms that are mega players in their respective markets but want to join hands to create a global footprint through collaboration must be open to co-branding. They must build a joint management for operations with the local partner, who can provide larger capability due to their competency in local markets, distribution and customer access. In a way, code sharing approach of major airlines or forming an alliance such as Star Alliance or One World for sharing flights, convenient connections for continuity in travel, sharing of gates, ground facilities, maintenance and flight catering is co-operation along these lines, albeit not as formalized.

So if you do this, what does it do for you?

First and foremost, such mega corporations will have the ability to expand rapidly in global markets with local expertise, something that would be otherwise impossible without major expenditures and time-consuming and painful learning curves. It also opens up possibilities for new avenues of co-operation including co-development of new products and services and the ability to tap into new customer segments.

Partnering among mega corporations implies that they are each in businesses so diverse that an acquisition or merger would not be meaningful. In this model, companies would only come together for a common value proposition of expanding their footprint in a country where the local player is looking for diversifying its business. This is quite different from an acquisition strategy where a major player would be looking for buying a company focused in a particular market. Therefore, Alliance's acquisition of Cornhill Insurance in the UK, represents a global footprint expansion by way of buying a company within a market focused on essentially the same product set. By contrast, Allianz which co-brands its insurance products under the Bajaj Allianz operation in India, is never likely to buy Bajaj, or be acquired by it, since Bajaj is a diversified manufacturing company that produces automobiles, lighting equipment and other industrial products, while Allianz is focused on financial protection. The two industries have no synergistic attributes that can create any new shareholder value.

Embedded in the above analysis is a cautionary note of a player that wants singular management of its brand and wants to pursue operations with its own name. Overturning a partnering agreement with a major local player can be quite difficult, and in some cases almost impossible. Therefore, an MNC that is looking for growing its business in a new market, should ensure that timelines of a partnership arrangement, i.e. fixed term versus perpetuity, need to be well understood before they tie the Gordian knot.

Model 3—Virtual Interconnections

The darling of the Global Value Web principles has its own challenges, as shown in Figure 8.3. The most threatening amongst them is the inability to gather a critical volume of revenue.



FIGURE 8.3

Additional details of the current footprint are detailed in Table 8.3 below.

Virtual interconnections	Current score	Easily attainable	Why?
Revenue	2	3	Usually, participants are small players with limited resources and market access, and therefore, cannot penetrate all the markets.
Processes	3	4	Each partner in this value chain has its own set of processes, which, in many cases, have only limited automation. Since the partners are small and need to collaborate to win, they tend to be more flexible and are able to make enough adjustments to get things to work reasonably well.
Innovation	3	4	In their current operation, each partner is very open to local flexibility requirements to meet local customer demands, and often their product is far more on target than even what large MNCs can bring to bear, since they are much more inflexible in terms of what they offer and how they do business.
Objectives	4	5	Since all participants are relatively small, and hungrier than larger companies, they are able to reasonably align objectives in order to win, which in most cases, is against larger companies.
Human capital	3	5	Lack of enough funding for personnel movement, hiring and travel, results in virtual islands, which are interconnected, and the resources are what the resources are.
Metrics	3	4	The partners are likely to have potentially different metrics on how they should measure and manage success.
Localization	3	4	Localization in this model is quite high since the only channel to sell the product is through the local partner and success is ordinarily possible only if the product is localized enough or specifically targets the customers' demands.

 Table 8.3:
 GI positioning for virtually interconnected players

Contd ...

Virtual interconnections	Current score	Easily attainable	Why?
Leadership	4	5	The local partner is ordinarily the provider of the local inputs in production, delivery and sales, and therefore, there is enough local leadership within the system. This is what the customer sees, and these are the very individuals that decide what is provisioned and how within the local market.

 Table	8.3	Contd

How can Virtually Interconnected Players Enhance their GI?

This is a low-cost model since each of the players only has limited resources to apply to the situation. The advantage this model has is that each player is hungry for growth and is much more open to suggestions and changes, and the overall environment among the virtually connected entrepreneurs is one of cooperation with a hunger to win. This is in sharp contrast to larger companies who are often worried about not deviating from corporate standards and processes, even if they are viewed as unbending to the market requirements. Additional advantage that this model has is that most of the customer sets are often price sensitive and many big brand products and services are often outside the price range of these companies. So, it is almost a self-serving prophecy that the low cost model of virtually interconnected smaller groups can not only survive, but also thrive. Since this group of entrepreneurs is not bound by any corporate driven financial, legal or human resource practices, and the decision makers are often the owners of the smaller companies themselves, there is the ability to take risks and agree to almost any kind of variation or special requirement on both sides.

Lacking the resources of much larger companies, these groups of companies have to be far more innovative in terms of cost, flexibility and responsiveness, and need to think 'outside the box' along all the dimensions of global success. Some examples are detailed here:

• **Revenue**—An aggressive low-cost model has to be used for both customer acquisition and pricing to ensure profitability across the value web. In terms of pricing, each of the individual players are often willing to price their products or services based on marginal costing, which in itself provides a 30 per cent to 50 per cent pricing advantage over standard pricing, and perhaps a price and cost

structure that is about half of that of major corporations. Since the customers are willing to pay less, they are also more open to different channels for sales. Companies here need to keep extensive mailing lists and can leverage low cost mechanisms such as email based campaigns and marketing.

- **Processes**—Having well-defined processes is like a 'double-edged' sword. Well-defined processes that can be repeated lend the advantage of economies-of-scale and scope that result in lower costs over the long-term, and with it provide consistent results in terms of product and service delivery at a forecasted costing and price point. However, it is expensive to define the process, train the people, and then automate enough systems to ensure that individuals do not try to bypass them. This works well in larger companies that can afford such approaches and also want to have a relatively stable product portfolio, which they can milk over long periods of time. However, smaller companies cannot afford such an approach. When one examines the business volumes that these companies are likely to achieve, it doesn't make sense to formally define explicit processes. Instead, they need to have the philosophy of mutual co-operation among the players and work as a highly networked organization that makes decisions collaboratively. They need only worry about formalizing processes if the business volumes reach such a point that undefined processes begin to become an issue.
- **Innovation**—This is often the most innovative of all the models. The participants in the companies are often the ones with the expertise of their products, services, markets, etc. and they have very little overheads in terms of support staff. The companies comprise mainly of the doers. Therefore, if customization is required in a product or service, the right resource can be immediately applied to the problem without going through extensive planning and funding that a larger companies, parts suppliers, electronic and appliance distributors and resellers fall into this category, and can work with their global value web partners to do things that would be impossible in large companies.

Recently, I came across an example of a company that needed several thousand special cards for computers in a developing country. While these were available from the big PC providers, the customer was unwilling to pay that price. The winning intermediary was able to source these products from a 'wrecker' or a company that had 'pulled' cards from discarded computers in the US, but nevertheless

guaranteed their performance. As we well know, in electronics if a device is working, it is working, and whether new or used, the performance is effectively the same. So this approach worked well for all the participants—the customer, the intermediary servicing distributor and installer, and the supplier. Also, interestingly enough, this sourcing was done through electronic value webs. This model becomes active and then disappears without any prohibitive, associated costs of formal agreement, committed volumes and the like. In the future, when different parts need to be sourced, or the customer has another requirement, a different value web of participants can be assembled. This is true innovation, with the requirements sourced, delivered and installed in two weeks at less than half the volume discounted price of larger companies.

Beyond the flexibility and resiliency that is inherent in this model, the partners can also let their creative juices flow and figure out how to best serve a customer need. Virtual consulting companies, often staffed by former Accenture, Gartner, McKinsey and IBM Consulting experts, can provide the same quality and depth of expertise in thought to their customers. They can do it with a more flexible, on-demand model that has experts connected in the US, Canada and Europe, at the front end, and with delivery arms in terms of research, analysis and computer systems at the back end in India and China, many of which are smaller companies run by former experts from larger sourcing providers such as Tata, Infosys and Wipro.

- **Objectives**—This is a flexible model, and there need not be a common set of objectives for revenue and the like, since these will be meaningless. However, when there is continuity and some permanence in the interconnections, some joint objectives and metrics can be established, particularly in the area of pricing margin flexibility, by each of the partners, in order to make sales successful.
- Human capital—With limited funds, these companies do not have the resources to jointly develop human capital. They have to work with the human resources they have. They can use innovative approaches, such as web conferences, to reduce their costs for knowledge transference and provisioning local expertise, when required. While this method is certainly available to larger companies, very few, if any, are really using it to a great extent. Ability to harness the entire network of resource expertise is higher and serves this model well. In this case, the individuals within the

network themselves know what expertise others have, as compared to skills inventory systems that larger companies rely on.

- **Metrics**—Metrics in this model cannot be formalized since the virtual value web often exists only for a single transaction. The point is that this model can rapidly be assembled for 'one-of-a-kind' transactions. However, when working together, companies need to figure out the correct branding and portrayal of the final value proposition, whether it is co-branded, local provider branded, or effectively has no branding other than meeting the functional requirements of the customer.
- Localization—Any localization requirements need to be defined and co-ordinated by the local delivery company. Localization in this model is quite simple—leverage the expertise from within the global value web wherever it is resident, and apply it—there is no detailed, formal process required.
- Leadership—Companies in this model need to continue to push for more cross-pollination of expertise through regular information exchange.

Strategies for Virtually Interconnected Players

The small, virtually interconnected players are already operating in a dynamic value web model, more by default than design. They need to address product range limitations through new partners in the global context. However, they should stay within the local market where they are strong. They should investigate co-branding with partners for pushing their core products into the partners' markets, in the reverse.

However, they also need to formalize their relationship without being too opportunistic. IT industry's global resourcing and project delivery model, which utilizes this model very well, is also littered with instances of back stabbing, shortchanging its constituents and ultimately killing the golden goose.

Model 4—Reverse Global Firms

Figure 8.4 shows the state of affairs for Reverse Global firms. The revenue from the global markets will be low since the Reverse Global company, by definition, is only operating in a very few geographies, if not one alone. Therefore, while their partners may have higher and more distributed sales globally, this metric of revenue will remain low, unless they themselves want to venture out and become a true global company, one which serves customers in multiple geographies.

FIGURE 8.4



A footprint for Reverse Global firms is detailed in Table 8.4 below:

Reverse Global firms	Current score	Easily attainable	Why?
Revenue	1	1	Revenue from global sources is low in this model since the only company that is selling the product is the local incumbent. While there are sales of the individual suppliers, measuring that in totality is difficult since they are likely to have different partners in different geographies.
Processes	2	3	Process synchronization is normally low since the reverse global local player is managing a divergent product set, requiring initial leverage of processes of providing partners, all of which are different.
Innovation	4	5	Since each provider is typically best-in-class, innovation scores are quite high for each of the products.
Objectives	2	3	At least in the incubation phase, there could be potentially divergent objectives between the local player and its international suppliers. These need to be addressed in the initial negotiation stages to avoid potential roadblocks in the future.
Human capital	4	5	Since each partner leverages best-in-class talent for product development, production, marketing, sales or customer service, leverage of global human capital is quite high.

Table 8.4: GI Positioning for Reverse Global firms

Reverse Global firms	Current score	Easily attainable	Why?
Metrics	4	5	Both partners are seeking to expand revenue and being competitors are likely to have coordinated metrics.
Localization	4	5	Local expert already customizes product to meet local market requirements before introduction.
Leadership	3	4	Each business unit is managed as a separate entity, and the only place they come together is how they can be successful in the local market.

... Table 8.4 Contd

How can Reverse Global Players Enhance their GI?

By taking some simple steps, most of which require little to no investment, **Reverse Global players** can greatly enhance their GI and chances for global success. These are:

- **Revenue**—By the very nature of this model, revenue, though high in one local market, will remain low globally, since the reverse global players operate usually only in one market.
- **Processes**—Since sourcing and production of goods in this model occurs as a combination of local and international provisioning, the reverse global player needs to integrate its processes with its partners and optimize them for forecasting, production planning and production. Production is more complex since products may initially be simply sourced from the international players, but over time, may be moved to local production. Local production will reduce the overall product cost in the local market and provide better control over finished goods inventory consistent with local market demand cycles.
- Innovation—In general, the reverse global players and their partners usually have best-in-class products to their advantage. They can further leverage their competencies of excellence and brand recognition to expand the product line that fits right in with their core products. Godrej, in India, used the latest locks from MasterLock in the US to expands its lock and vault business, giving it a full line of security locks from leaders all around. Clearly, such a position is difficult for any competitor to match.
- **Objectives**—The partners could very easily have divergent objectives, since one is a major local market player, whereas the

other has the core products that the local partner wants to sell. As we have mentioned several times, there is no room for parochialism and supremacy, if one wants to win within the global context. Therefore, the partners need to align along mutually beneficial objectives with both having to gain from increased sales and brand prominence locally, and globally. Key to making this happen is to have leaders with the right mindset who are involved in co-running the partnership.

- Human capital—The reverse global model is not a sourcing model where the international product provider simply pushes its products through their local partner. Production, selling and brand management have to shift to the local company so that the costing of products are at the right level for the products to sell successfully in the local market. Therefore, expertise in manufacturing, quality control, and selling have to be transferred to the local partner. Luckily, this model is not about outsourcing and job displacement, therefore, co-operation on knowledge transference should be much easier than in the first model, where an MNC, looking at expanding its global footprint will often source manufacturing, IT and support work from lower cost destinations, and use the very same individuals for knowledge transference who may be displaced by the individuals being trained.
- **Metrics**—Metrics are based on joint success, which is measured by market share growth, attainment of leadership position within the top three in the market, and being recognized as a leader in providing a broad range of products within the industry.
- Localization—Since the reverse global player also has engineering, manufacturing and distribution resources, it can leverage its own expertise to localize the products. In some cases, it can simply license a technology or core product and build from there. This phenomenon has occurred extensively in automobiles, motorcycles and scooters where companies in Indonesia, China and India leveraged a major player such as Honda, Kawasaki, Mazda, or Piaggo, and then later extended the very designs to suit local market conditions such as styling, ability to handle road conditions, and meet local costing requirements.
- Leadership—Leadership is ordinarily provided by the reverse global player in the local market. However, additional leverage can be realized in ensuring there is continual exchange of ideas and information between the two companies to fine tune market operations.
Strategies for Reverse Global Players

The Global Value Web approach seems tailored for the reverse global model, yet they must avoid the shotgun strategy of firing at every other opportunity just because they have the muscle power and market access. The advice to them is to stay focused on core segments they are recognized in and can defend. Even giants such as Godrej had to contain themselves when they embarked on non-familiar terrain. Godrej, a home goods and security products company has now started venturing into consumer goods and food products. It will be interesting to see how they succeed, particularly as the market in India becomes more competitive. Every conglomerate, in the developed economy, that had a diversified portfolio, has all but given that up since it cannot protect itself against focused players whose business is only within a segment. In fact, even within a segment, companies are having difficulty in protecting their businesses with specialized category killers. In the US, Carter's has all but captured the infant clothing market, and Bed, Bath and Beyond has done likewise in the home linen segment, resulting in vastly smaller businesses in these categories for established mega-retailers such as Dillard's and Federated Department Stores.

The reverse global model discussed here is one where the two companies maintain independence, but come together for a common objective. However, sometimes due to requirements of control of technology, a joint venture is a better alternative. JVs require the setting up of another company, a different management and reporting structure. Few JVs are successful within the international context for a long period of time, since both the partners vie for additional domination as the local market grows, and it usually results in a breakup with both partners having enough to go on their own way within the local market.

So if they do this, what will they gain?

Since a reverse global player already has tremendous local market capability, an additional leverage of excellent products from global players can strengthen its position against its competitors. On the other hand, the companies that provide products and technologies to the reverse global players can also drive this model with different players throughout the world, and continue to extend their brand globally.

SUMMARY OF KEY THEMES

1. Modern technology and trade have created a new chapter of buyer and supplier relations in a much more democratic setup.

Technology now allows participants in the value chain to selectively see the forecast and delivery schedules. Since computer systems can integrate across multiple manufacturers, a whole range of intermediaries and manufacturers can participate in the value chain. Through pre-qualified arrangements, companies can participate in electronic auctions and can dynamically view and integrate a range of suppliers into the value chains.

- 2. Other than a few rare exceptions, almost every company and every operating model has a relatively low GI. So, nobody is doing it right!
- 3. Any organization, big or small, which wants to create a global enterprise, must do so with what we call the preamble strategy or the Global Value Web.
- 4. Use technology to link and tap the entire value ecosystem. The core firm must have the ability to dynamically link capabilities of its value web participants, allowing it the flexibility to find the best provider of value at any particular point in time.
- 5. The basic criteria for success for most performance measures, is simplicity and universal adaptability, while having deep rigor in its ability to correctly gauge the overall business. The eight point GI is a simple, yet an elegant and complete measure for a company's global positioning.

NINE

Structuring for Global Success

It is possible to fail in many ways...while to succeed is possible only in one way...

Aristotle

KEY TO WINNING, WHETHER locally or globally, is how a company structures its processes and optimizes its operations. The defining principles in any structuring or process excellence are:

- Consistency of processes, which promote the corporate brand and image.
- Correct centralization and decentralization of processes, operations and decisions, so that there is a consistent structure of doing things across the company while ensuring customer alignment and responsiveness.
- Ability to harness the power of the corporation that links together and leverages all the core capabilities, competencies and expertise in the most efficient manner.
- Promotes overall economies-of-scale and scope leverage to provide low cost for producing goods and services, while leveraging core competencies and expertise across its business units and geographies.

Consistent look and feel are even more important in a global operation, where the activity is often spread across continents, something quite different from the larger, integrated, close proximity industrial complexes that drove the industrial era through the 1970s.

SLAVES OF AUTOMATION

In most companies, processes have simply grown over a period of time without any deep thought to corporate-wide optimization. Individual

managers and departments optimized their operations and these grow over a period of time. While computers further helped to automate tasks and functions, they never really integrated an enterprise. This led to the well-known phrase 'islands of automation', which now made an inefficient organization even faster at doing thing inefficiently. This was the genesis of the much heralded 're-engineering' in the 1980s, which eventually led to process thinking across companies. This was a period of rise of large consulting companies such as Accenture, McKinsey and IBM Consulting. Coupled with this, companies were also able to begin using powerful systems integration tools such as Enterprise Resource Planning or ERP systems, and middleware that allowed disparate applications to share information easily. With the promise of improving their operations, both from a cost standpoint through automation and integration of processes, almost every mid to large sized company underwent a major transformation in terms of rethinking their business. It was the beginning of the end for the functional specialization era, soon to be replaced with the process era.

However, just as companies had initially automated tasks and functions, and ended up with islands of automation, most companies today are slaves to the large ERP systems they have implemented. After investing millions, if not hundreds of millions of dollars in these mega SAP or Oracle ERP systems, companies are now unwilling to make any changes to their processes, lest it result in another major investment in process redefinition, associated systems implementation and personnel retraining. As a result, companies have become slaves of the very systems that they thought would provide them with flexibility, consistency and integration across their dispersed operations. Processes have become static in most companies and resemble the thinking of an industrial era, circa 2000, reflecting single company and line of sight visibility oriented control. In almost every company we have been to recently, we hear the phrase 'it will take an act of God to change our processes and systems'.

As a result, many companies today have processes that are neither current, nor flexible. As operations of companies have changed, companies have struggled to update and keep their processes current. Manual workarounds have crept in, and organizations have become slow and dependent on key individuals who own the knowledge on how to expedite or process work in the companies. This clearly does not serve them well as they embark on a global journey, where flexibility, resiliency and adaptability to local markets will be key to success.

So, Why has this Happened?

In the quest for attaining rapid savings and process integration, many companies used a short cut to rapidly adopt the ERP system that closely resembled their operation. They fitted their operations to information automation tools rather than adopting and customizing the automation tool to meet the needs of their businesses. Many companies' processes now resemble the process automation encoded in the ERP system, or the systems integration they did by integrating their islands of automation. This encoding does not provide the flexibility for companies to succeed globally, since the operations in each country have to conform to different legislative and reporting requirements and local operating norms.

So, what does it take to succeed?

LOGICAL PROCESS STRUCTURING

Companies need to rethink how they structure their processes to provide for long-term efficiency, effectiveness and sustainability. This implies that while their processes need to be consistent and well integrated, they also need to have the ability to change and be resilient to meeting both the changing business requirements, as well as the localization elements required for success in each of the markets they operate.

We have developed a technique that we have successfully applied to dozens of companies. This provide them with a resilient, flexible and efficient process structure. Work and associated business processes need to be thought through in terms of logical groups, and how they should be divided and finally positioned to provide global flexibility. Processes need to be structured using some very simple logical principles, and can be grouped into three major categories: centralized, common or unique.

Centralized Functions and Processes

These are functions, processes or capabilities that are typically shared by several business units and geographies and that should logically be performed at one place within the enterprise. This can be either centralized at the headquarters, or be handled in one single management structure or location within the company. Typically, the processes here tend be focused on non-production activities which provide consistent coordination across the enterprise. Examples include corporate strategic planning, corporate legal and human resources functions for uniformity and protection of the enterprise, finance functions and information technology structure and management of the enterprise. These are the functions that provide economies-of-scale, global coordination and the exchange of important information between business units and headquarters, as well as coordinating information across business units. Centralized processes are normally defined by corporate staff, usually associated with headquarters.

They may often seek inputs from the business units to make minor adjustments to these processes.

Common and Replicated Functions and Processes

These are functions, processes or capabilities that are typically performed by several business units, and by and large, have common characteristics in terms of inputs, outputs and the work performed. However, it does provide some flexibility and customization to an individual business unit or market to meet the specific demands placed on the logical business unit. Structures here provide for both economies-of-scale and scope leverage across business units, while providing enough latitude to ensure a balance between cost and flexibility. Having common processes, systems and training allows a company to rapidly deploy consistent processes across business units. This also makes personnel movement across business units and geographies easier. It further provides increased resiliency as the business grows, and enables greater cross-pollination of ideas and expertise across the corporation. Processes here are focused on production support and include things such as product development, engineering, business unit operational management and the like. These processes also ensure consistency in operations from one business unit or geography to another, and best practices leverage for organizational development, manufacturing, servicing and the like.

Common processes are usually defined by key leaders across a set of business units or geographies that collaborate to reduce their cost structure. There is a lot of give and take, so that all participating divisions can benefit from common principles, processes and learning that can be applied across the business units. Common processes, systems and training can often reduce the cost of these processes by 25 per cent or more, compared to what it would cost if a business unit decided to do it themselves. The cost leverage for these common processes is quite close to centralized processes. *The premium of centralized replicated processes is often less than 25 per cent over a singular process*, but this premium is well worth it since it provides some flexibility for customization at the business unit level. In addition, other changes can be handled by negotiations at business unit level rather than at the corporate level, thereby dramatically reducing time for managing change.

Local or Unique Functions and Processes

These are functions, processes or capabilities that are unique to a business unit, geography or market, and therefore, do not provide any synergy or economies-of-scale or scope leverage, since the amount of capital, machinery and personnel resources required to perform these unique business unit specific processes, will, by definition, be the same regardless of where these functions are performed. Examples here include selling and servicing of products that are unique by a business unit or market. As an example, the way you sell and service large computers or mainframes, which are high ticket items for select industrial customers, is quite different from the way you sell and service home PCs that are sold to an individual retail customer.

IBM invented the first successful PC and sold these the same way they sold mainframes. This was all well and good, as long as the buyer was essentially the same, i.e., the purchasing manager in large corporations. However, by dawn of the Internet age in the late 1980s, home PC sales took off and the total volumes far surpassed those of corporate buyers. The price points, selling and servicing required a completely different and lower cost structure. Compaq initially beat IBM by becoming the largest PC manufacturer, by focusing on lower cost machines for home use. Dell later followed by a consumer direct model, offering only a few non-customizable PC models, but the route of selling eliminated the middleman or retailer and further allowed a 20 per cent reduction in cost to the consumer. IBM's model, however, focused on servicing large corporations, and with the high cost structure it could not be adapted to service a completely different business with different operating fundamentals. IBM had to let the two businesses sell and service their machines through their own channels to meet the market and competitive requirements. It continued to be challenged on profitability on these businesses, and while it later allowed flexibility to these businesses to operate differently, they could never adapt all their processes to the right fundamentals. Eventually, IBM sold off the prized business unit of an industry it created. Local or unique processes are defined, implemented, managed and funded by the individual business units or geography, and therefore, they are free to choose and change these processes as they see fit to meet the market and competitive demands. This authority provides resiliency, flexibility and speed—essentials for success in each local market or specific unit product or service offering.

TYPICAL STRUCTURING OF TODAY'S ENTERPRISE

Tables 9.1 to 9.3 below, takes a look at all the major processes performed in a typical production or manufacturing company, and provides a sample structuring that effectively positions the processes based on defining the best principles of a process—consistency, flexibility, adaptability and an ability to integrate functions and capabilities to effectively 'act as one' within a

large enterprise. While the processes will be slightly different, depending on the industry, e.g. finance, insurance, telecom or aviation, the principles are the same, and optimal results can be derived by evaluating processes along the lines of centralized or singular, common or replicated, and local or unique to a market or business unit. Since a typical corporation has a few hundred processes, we have categorized them into three major groups, which are how the tables are organized:

- Planning, coordination and business management functions and processes—Table 9.1
- Non-production support functions and processes—Table 9.2
- Production and delivery functions and processes—Table 9.3

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
Strategy, Planning and Governance	 Strategic Planning Alliances Management Mergers and Acquisitions M and A assimilation Governance 	 Group and BU Planning Group Strategy Group operating details P&L and resource management 	Ongoing resource, revenue, P&L management
HR and Employee Communi- cations	 Public and Corporate Affairs Enterprise HR Planning Remuneration programs Employee Communications Leadership programs 	 Cross leverage programs Leadership development Recruiting and training 	• BU resource and skills management
Legal	 Corporate legal guidelines Business Ts and Cs Statutory Compliance 	• Ts and Cs exception management e	Contract Management
Finance	 Planning and budgeting Treasury A/R, A/P, cash management 	Financial plan managementBusiness controlsCapital projects	 Financial reporting Budget/Spend management

Table 9.1: Typical structuring of planning, coordination and business management functions and processes

Contd ...

-	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
	 Accounting Tax planning, reporting and compliance 	BillingP&L management	
	 Business health scorecard 	 Vendor and supplier management 	 Local tax and statutory filings
Real Estate/ Facilities	 Overall Real Estate Management Approved List of Provisioners Corporate OSHA¹ 	 Construction and property management Production and sales facilities management Office and retail 	 Real estate requirements Lease management
	guidelines/ management	space managementFacilities maintenance	
Information Technology	 Central IT management Corporate IT and telephony infrastructure Shared corporate IT applications Usage guidelines Buyer/supplier integration Overall spend and impact planning 	 Automation requests and IT development Asset planning, tracking and management IT systems, integration and management Desktop, telecom switches procurement Capacity management— network/systems Help desk 	
Security	Corporate security guidelinesBusiness continuity planning	 Employee badges and access Systems access management Emergencies— evacuation, etc. 	 Physical security and access management Emergency drills BCP implementation

... Table 9.1 Contd

 $^{^{\}scriptscriptstyle 1}$ OSHA: Occupational Safety and Health Administration guidelines.

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
Marketing and Public Relations	 Global analyst/ press relations External/internal PR management 	 Marketing Planning Category and sub-brand management 	
	 Advertising planning and coordination Brand management 	Conferences management	 Advertising in local markets
Research	 Emerging Technologies program Corporate repository of technologies Research programs coordination Patents 		
Competenc, Managemen	y • Global competency nt programs	 Delivery partner management Assemblage of expertise with partners 	

Table 9.2:	Typical structuring	of non-proc	luction suppo	ort functions a	ınd
	processes				

Table 9.3: Typical structuring of production and delivery functions and processes

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
Develop- ment	 Global product strategy Product portfolio management Sourcing strategy Partner integration strategy Supplier integration strategy 	 Product catalog management Product or services delivery engineering Manufacturing engineering Core components and IP Product/service integration 	• Manuals— operations/service

Contd ...

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
	 Key component suppliers management Product costing and pricing 	 VARs and VAD programs Supplier relationship management 	
Procurement and Logistics	 f • Global scheduling and coordination • Global contracts negotiations • Global vendor management • All good procurement 	 Sourcing and partnering Fleet management programs Vendor management Transportation management 	
Production	Global capacity coordinationGlobal resource planning	 Master scheduling Production planning Delivery coordination Capacity and utilization planning WIP and inventory management 	 Production and resource management Plant maintenance Packaging and shipping
Quality, Audit and Compliance	 Corporate guidelines Corporate programs coordination Audit management— internal/external 	 Optimization programs Compliance management	
Sales and Relationship Management	 Mega account prospecting Lead generation and management Premium account management Pricing guidelines, Ts and Cs Customer satisfaction management 	 Forecasting Competitive intelligence Mega accounts proposal, Terms & Conditions Pricing tools 	 Local business prospecting Proposals, negotiations, pricing and close Relationship management

... Table 9.3 Contd

Contd ...

... Table 9.3 Contd

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
	 Sales force compensation 		
Retailing (when applicable)	 Point of Sale (POS) tracking and analysis 	Store location identification	Store management
	 Global merchandizing strategy Global partnering strategy in retail Product selection and pricing 	Partnering program management	• Local sales advertising
Customer Service	 Service guidelines Product quality and complaints management 	Problem analysisEngineering coordination	
	Service cost management	Call center managementWarranty and service coordination	

A company that uses the logical structuring principles can position itself to be efficient, effective and flexible over long periods of time. While this is a necessary condition for success, it alone is not a sufficient condition to be successful globally.

An easy way to figure out how successful this model will be in a global context, is to ask the question—*What is your GI*?

The GI under this structure resembles that of a large multinational trying to control all the resources and deliver everything with the assets it controls, as shown in Figure 9.1. As we pointed out, no company has enough resources or the ingenuity in an eco-system where companies collaborate together. The inner footprint is the typical current score even for a resource rich company. Subsequently, we will describe how this company can elevate its GI score to that highlighted in the bigger footprint.

STRUCTURING FOR GLOBAL SUCCESS

Companies that have vast resources can very easily break the barrier. We pointed out earlier that all companies need to change their mindset to be

FIGURE 9.1



Current and attainable GI through logical structuring

successful. Figure 9.1 shows all processes a production company performs, and if they execute all these functions themselves, they are likely to achieve a relatively low GI score, as shown above. While many companies pride themselves on having great assets and global reach, they need to rethink what they can and cannot do. Figure 9.2 shows a simple concept and by using capability sliders, a company can correctly rationalize their structure not just for local, but for global success too.

Control: Local versus central slider—By evaluating their processes along the lines of what needs to be central or common for economic leverage versus what needs to be localized for innovation, market and customer success, companies need to find the right balance by figuring out which processes should be centralized and which should be localized.

Sourcing: Looking within versus sourcing from partners—By evaluating its processes along the lines of what a company can garner from within versus what it can source from partners, it can leverage the resources of many other companies within the ecosystem. Typically, core competencies, key technologies and processes that make a company distinctive in areas such as customer service excellence, responsiveness and reliability, should be managed by a company's own resource base. This is to ensure consistency of delivery in the elements that makes the company's products sought after. Other support elements, or those that can change dramatically in terms of costing, can easily be sourced through partners while protecting the company's prized gems.

FIGURE 9.2





OPTIMIZED ENTERPRISE STRUCTURE—CORPORATE LEVEL

By applying the concept of control slider, a company can optimize what it should perform centrally versus what should be localized. This balance does come at a cost, since local or business unit specific processes cost much more than a centralized process being shared by many business units or divisions, but, the flexibility is well worth it. The customer does not care about what the internal cost structure of a company is. What the customer does care about is how effectively the company is able to satisfy the individual requirements through the product and service offerings. Business units, which are selling products that are distinctly different from that of another business unit, need this flexibility to respond to both competitive threats and customers' demands. Tables 9.4 to 9.6 below illustrate how a company can take its processes, which typically are highly centralized and control-oriented to a more resilient market responsive structure. One can observe that many of the product development and market responsive processes, such as sales, servicing and several elements of traditionally centralized processes, should optimally be moved closest to value touch point with the final customer.

As in the case of the current footprint of a company, illustrated in Tables 9.1–9.3, we have organized the processes of a logically structured corporation into three major groups:

- Planning, coordination and business management functions and processes—Table 9.4
- Non-production support functions and processes—Table 9.5
- Production and delivery functions and processes—Table 9.6

This is a detailed logical structure for a manufacturing enterprise that is trying to accomplish everything by itself without the leverage of partners. This structure is highly optimized, compared to the structure presented in Table 9.1–9.3, which resembles an older, static, control-oriented model, typical of the industrial age.

	0	1	
	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
Strategy, Planning and Governance	 Strategic Planning Alliances Management Mergers and Acquisitions Governance 	 Group Planning Group Strategy Group operating details P&L and resource management 	 BU Planning BU Strategy Ongoing resource, revenue, P&L management M&A assimilation
HR and Employee Communi- cations	 Public and Corporate Affairs Enterprise HR Planning Remuneration guidelines Employee Communications Leadership programs 	 Cross leverage programs Leadership development 	 BU resource and skills management Recruiting and training Remuneration programs Leaders identification BU-specific Employee Communications
Legal	 Corporate legal guidelines Business Ts and Cs Statutory Compliance 		 Contract Management Customer specific Ts and Cs BU level legal matters
Finance	 Planning and budgeting Treasury	Financial plan managementBusiness controls	 Operational management Financial reporting

Table 9.4: Typical structuring of planning, coordination and businessmanagement functions and processes

... Table 9.4 Contd

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
	 A/R, A/P, cash management Accounting Tax planning, reporting and compliance Business health 	Capital projectsBillingP&L management	 Budget/Spend management Capital goods procurement Vendor management Local tax and
Real Estate/ Facilities	 Overall Real Estate Management Approved List of Provisioners Corporate OSHA guidelines/ management 	 Site selection Production and sales facilities management Office and retail space management 	 Real estate requirements Lease management Construction and property management Facilities maintenance
Information Technology	 Central IT management Corporate IT and telephony infrastructure Shared corporate IT applications Usage guidelines Buyer/supplier integration Overall spend and impact planning 	 Automation requests and IT development Asset planning, tracking and management IT systems, integration and management Desktop, telecom switches procurement Capacity management— network/systems Help desk 	 BU-specific IT requirements BU-specific IT programs PC and mobile device issuance Telecom and mobility management
Security	 Corporate security guidelines Business continuity planning 	 Employee badges and access Systems access management Emergencies—evacuation, etc. 	 Physical security and access management Emergency drills BCP implementation

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
Marketing and Public Relations	 Global analyst/ press relations External/internal PR management 	 Marketing Planning Category and sub-brand 	 Conferences management Local visibility programs
	 Advertising planning and coordination 	management	 Advertising in local markets
	Brand management		 Local analyst/trade press relations
Research	 Emerging Technologies program Corporate repository of technologies 	 Markets for newer technologies Non-technology research, e.g., business 	 Select technologies investigation Development and testing
	 Research programs coordination Patents		 Translation into marketable products Local implementation
Competency Managemen	 v • Global competency it programs 	 Delivery partner management Assemblage of expertise with partners Competency congealing into products Coordination with product development 	 Competencies enhancements Competency management

Table 9.5:	Typical structuring of non-production support functions and
	processes

Table 9.6:	Typical structuring of production and delivery functions and
	processes

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
Develop- ment	 Global product strategy Product portfolio management Sourcing strategy 	 Product catalog management Product or services delivery engineering Manufacturing engineering 	 Market/customer research Productization and localization Product costing and pricing

... Table 9.6 Contd

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
	 Partner integration strategy Supplier integration strategy 	 Core components and IP Product/service integration 	Manuals— operations/service Product portfolio management (renew/sunset)
	Key component suppliers management	 VARs and VAD programs Supplier relationship management 	
Procurement and Logistics	 Global scheduling and coordination Global contracts negotiations Global vendor management 	 Sourcing and partnering Fleet management programs 	 Capital goods procurement Non production procurement Local vendor management Transportation management
Production	 Global capacity coordination Global resource planning 	 Master scheduling Supplier integration Delivery coordination Capacity and utilization planning 	 Production planning Production and resource management Plant maintenance Service planning and coordination WIP and inventory management Packaging and shipping
Quality, Audit and Compliance	 Corporate guidelines Corporate programs coordination 	 Optimization programs Non-compliance management 	 Quality programs implementation Audit management— internal/external Compliance management
Sales and Relationship Management	 Mega account prospecting Lead generation and management Premium account management 	 Forecasting Competitive intelligence Mega accounts propose, Ts & Cs 	 Local business prospecting Proposals, negotiations, pricing and close Complex solution engineering
Sales and Relationship Management	 Mega account prospecting Lead generation and management Premium account management 	 Forecasting Competitive intelligence Mega accounts propose, Ts & Cs 	 Local business prospecting Proposals, negotiations, pricing and close Complex solution engineering

Contd ...

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
	• Pricing guidelines, Ts and Cs	Pricing tools	 Relationship management Customer satisfaction management Sales force compensation
Retailing (when applicable)	 POS tracking and analysis Global merchandizing strategy 	 Store location identification Partnering program management 	 Store management Product selection management
	• Global partnering strategy in retail	Vendor supplier managementValue integration programs	 Local sales advertising Retail pricing management
Customer Service	 Service guidelines Product quality and complaints management 	 Problem analysis Engineering coordination 	Warranty serviceRepair service
	0	Call center managementRouting and coordination	Customer issue resolutionAfter sales service cost management

 Table	9.6	Contd

GLOBALLY OPTIMIZED STRUCTURE—ECOSYSTEM LEVEL

A globally optimized process and business structure is at the heart of the very discussion this book is about. It is here that several complex concepts come together tied up with the changing global market dynamics and how a company needs to position itself to win. There are many elements required for success within a global context. This begins with leadership, and the recognition at the top level that the company may need to do things in a fundamentally different manner if they are to navigate uncharted waters with precision. We will discuss more leadership elements in detail in Chapter 10. However, from a business structuring standpoint, companies must think through how they can achieve a high GI, correctly position processes along the grid of the central, common and local, and also balance what is performed within the company an ability to win in the global landscape, but it will also position it uniquely against its competitors by

locking them out of a large chunk of the global value web, which will take the competitors a long time to duplicate.

Structuring along these principles can provide all the following advantages:

- Full leverage of economies-of-scale and scope.
- Business flexibility, resilience and responsiveness at the local level.
- Consistent look, touch and feel, and brand management across product lines and countries, giving the look and feel of one company.
- Flexibility and adaptability to change, as demanded, at much lower investments.
- Leverage of key local partners and their resources, knowledge and expertise, which could lock out competitors from ever having access to these precious resources.

Tables 9.7 through 9.10 shows this globally optimized structure for the same production company as shown in Tables 9.4 through 9.6, but now optimized at an ecosystem and global level through partners, thereby providing the larger attainable GI footprint as show in Figure 9.1. The processes are detailed using the following logical structuring:

- Planning, coordination and business management functions and processes—Table 9.7
- Non-production support functions and processes—Table 9.8
- Production and delivery functions and processes—Table 9.9
- Functions and processes sourced through partners—Table 9.10

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
Strategy, Planning and	 Strategic Planning Alliances Management 	Group PlanningGroup Strategy	 BU Planning BU Strategy
Governance	Mergers and Acquisitions	 Group operating details 	 Ongoing resource, revenue, P&L management
	Governance	 P&L and resource management 	M&A assimilation

Table 9.7: Typical structuring of planning, coordination and business management functions and processes

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
HR and Employee Communi- cations	 Public and Corporate Affairs Enterprise HR Planning Remuneration guidelines Employee Communications Leadership programs 	 Cross leverage programs Leadership development 	 BU resource and skills management Recruiting and training Remuneration programs Leaders identification BU-specific Employee Communications
Legal	 Corporate legal guidelines Business Ts and Cs Statutory Compliance 		 Contract Management Customer specific Ts and Cs BU-level legal matters
Finance	 Planning & budgeting Treasury A/R, A/P, cash management Accounting 	 Financial plan management Business controls Capital projects Billing 	 Operational management Financial reporting Budget/Spend management Capital goods procurement
	 Reporting and compliance Business health scorecard 	P&L management	Vendor management
Real Estate/ Facilities	 Overall Real Estate Management Approved List of Provisioners Corporate OSHA guidelines/ management 	• Site selection	Real estate requirements
Information Technology	Usage guidelinesOverall spend and impact planning	 Automation requests and IT development Desktop, telecom switches procurement 	 PC and mobile device issuance Telecom and mobility
Security	Corporate security guidelines	• Employee badges and access	 management Physical security and access management
	 Business continuity planning 	 Systems access management Emergencies— evacuation, etc. 	Emergency drills BCP implementation

... Table 9.7 Contd

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
Marketing and Public Relations	 Global analyst/ press relations External/internal PR management Advertising planning and coordination Brand management 	 Marketing Planning Category and sub-brand management 	• Local analyst/ trade press relations
Research	 Emerging Technologies program Corporate repository of technologies Research programs coordination Patents 	Markets for newer technologies	 Select technologies investigation Development and testing Translation into marketable products Local implementation
Competency Managemen	v • Global competency t programs	 Assemblage of expertise with partners Competency congealing into products 	

Table 9.8:	Typical structuring of non-production support functions and
	processes

Table 9.9: Typical structuring of production and delivery functions and processes

	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
Develop- ment	 Global product strategy 	 Product catalog management 	 Product portfolio management (renew/sunset)
	 Product portfolio management Sourcing strategy 	 Product or services delivery engineering Manufacturing engineering 	
	 Partner integration strategy Supplier integration strategy 	 Core components and IP Product/service integration 	

-	Centralized	Replicated	Local
Function	Global coordination	Common across markets or BU's	Market or BU-specific
	 Key component suppliers management 	 Supplier relationship management 	
Procuremen and Logistics	f • Global contractsnegotiations	 Sourcing and partnering 	 Capital goods procurement
Production	Global capacity coordinationGlobal resource planning	Master schedulingSupplier integration	
Quality, Audit and Compliance	 Corporate guidelines Corporate programs coordination 	 Optimization programs Non-compliance management 	 Quality programs implementation Audit management— internal/external Compliance management
Sales and Relationship Managemen	 Mega account prospecting Lead generation and management Premium account management Pricing guidelines, Ts and Cs 	 Forecasting Competitive intelligence Mega accounts propose, Ts and Cs Pricing tools 	Complex solution engineering Relationship management
Retailing (when applicable)	 POS tracking and analysis Global merchandizing strategy Global partnering strategy in retail 	 Store location identification Partnering program management Vendor supplier management Value integration programs 	-
Customer Service	 Service guidelines Product quality} and complaints management 	• Problem Analysis	

... Table 9.9 Contd

Function	 Controlized	Replicated	Local
HR and Employee Communi- cations	Centralizeu	replicateu	Recruiting
Finance	• Tax planning		Local tax and statutory filings
Real Estate/ Facilities		 Office and retail space management Production and sales facilities management 	 Lease management Construction and property management Facilities maintenance
Information Technology	 Central IT management Corporate IT and telephony infrastructure Shared corporate IT applications Buyer/supplier integration 	 Asset planning, tracking and management IT systems, integration and management Capacity management— network/systems Help desk 	 BU-specific IT requirements BU-specific IT programs
Marketing and Public Relations	 Advertising planning and coordination Brand management 		 Conferences management Local visibility programs Advertising in local markets
Research		• Non-technology research, e.g., business	 Select technologies investigation Development and testing
Competency Management	t	 Vendor competency management Competency congealing into products Coordination with product development 	Competencies enhancements

Table 9.10: Structuring of functions and processes sourced through partners

Contd ...

Function Centralized	Replicated	Local
Development	 Core vendor components and technology 	• Market/customer research
	VARs programs	 Productization and localization
	• VAD programs	 Product costing and pricing Manuals— operations/service
Procurement • Global logistics and Logistics management	 Fleet management programs 	 Non production procurement Local vendor management Transportation management
Production	Delivery coordination	Production
	 Capacity and utilization planning 	Plant maintenance
		 Finished good inventory
		management Packaging and shipping
Sales and Relationship Management		 Local business prospecting Proposals, negotiations, pricing and close Local market competitive intelligence Specific segment Ts and Cs Relationship management for select segments
Retailing• POS tracking/(whenanalysis forannlicable)select markets		Store management
appireasie, select markets		 Product selection management Local sales advertising Retail pricing management

... Table 9.10 Contd

Function	Centralized	Replicated	Local
Customer Service		 Problem analysis Engineering coordination 	Warranty serviceRepair service
		 Call center management Routing and coordination 	 Customer issue resolution After sales service cost management

... Table 9.10 Contd

Global resources, markets and capabilities are the last of the identifiable levers that most companies have not taken advantage of. All other levers such as expertise, technology, capital and legislative barriers have already been acted upon. Therefore, any company that is able to attain leadership through a high GI will be at the forefront of exercising all potential levers to their strategic advantage. Companies that can get to this structure and maintain it have an unusual strategic advantage, and can leverage this position of strength to achieve global leadership, which they should be able to maintain for long periods of time. All they need to do is to continue pushing all the dimensions of innovation outlined in Chapter 1.

Each company is different, even if it within the same industry or operating in the same geography. Each company needs to examine all its processes in detail, and depending on its operating philosophy and strategic intent, needs to determine the correct position of the sourcing slider bar, i.e., the right level of centralized versus localized processes and decision making, and the right level of in sourcing versus outsourcing, to deliver a unique distinctive capability position for that company.

SUMMARY OF KEY THEMES

- 1. Key to winning, whether locally or globally, is how a company structures its processes and optimizes its operations.
- 2. The defining principles in any structuring or process excellence are:
 - (a) Consistency of processes
 - (b) Correct centralization and decentralization of processes, operations and decisions
 - (c) Ability to harness the power of the corporation that links together and leverages all the core capabilities, competencies and expertise in the most efficient manner
 - (d) Promotes an overall economies-of-scale and scope leverage to provide low cost for producing goods and services, while

leveraging core competencies and expertise across its business units and geographies

- 3. Companies need to rethink how they can structure their processes for the long-term, resulting in efficiency and effectiveness on a sustained basis.
- 4. From a business structuring standpoint, companies must think through how they can achieve a high GI, and need to correctly position processes along the grid of central, common and local.
- 5. Each company needs to examine all its processes in detail, and depending on its operating philosophy and strategic intent, needs to examine how to correctly balance centralization versus localization and what is sourced.

ΤΕΝ

Leadership in a Multi-Polar World

Leaders don't create followers, they create more leaders...

Tom Peters

In 2006, WHEN SAM PALMISANO coined the term 'globally integrated enterprise'¹, it appeared as if the IBM CEO had come out with yet another esoteric term, for which the time was yet to arrive. Businesses were expanding rapidly, globally, and most corporate executives pushed aside any thinking of globally integrated processes and value chain optimization. Instead, rapid deployment and local optimizations under a multi-local model, or simply pushing the centralized corporate agenda under the MNC structure, suited most companies well. The idea of globally segregated value centers that were united together, under a globally optimized model, which also had to be flexible, was either not understood, or was considered too difficult to implement. Few companies, if any, were able to take the long-term view for a systematic approach that would position them for the future.

Although noted much earlier by Kenichi Ohmae in his classical book 'Borderless World', Mr Palmisano proposed integration of production and value delivery worldwide where state borders would be irrelevant, value integration would transcend country borders, and value activities would be performed where they could best be performed from an overall performance perspective of cost, expertise, time and quality. What was initially considered prophetic, has now become the rule of the day. Due to shrinking fortunes, almost every company has less money to invest now, and is having to rethink their approach in order to optimize their

¹ Palmisano, Samuel J. 2006 (May/June). "The Globally Integrated Enterprise", Foreign Affairs 85(3): 127–36.

operations globally. Most companies could have avoided this situation if they had looked at the world through the right global leadership lens.

Operating a globally integrated and optimized enterprise requires a much more comprehensive set of leadership and people skills, compared to companies that are operating only within a local geography or country. When any executive, human resource professional or an organizational consultant is asked about leadership, he/she is quick to talk about all the traits that successful leaders have, and what an organization or corporation has to do to nurture leadership talent. In our view, within a global enterprise, this is an incomplete leadership model. Instead, in our experience, leadership for globally successful organizations consists of not one, but two major components—*leadership in thought, and leadership in personnel.*

LEADERSHIP IN THOUGHT

Having the best leaders is not sufficient for success in the global enterprise. What has worked well in the past, in a country or region, may not be applicable globally. As a result, we find many successful companies who are unable to succeed globally. The landscape is strewn with failures such as Walmart, United Airlines, Renault, General Motors, Starbucks and Bank of America. These companies had been or continue to be leaders in their primary home markets, and while they can defend their turf at home, they are barely able to make a dent in any new market they enter. The reasons for such failures are numerous, and include explanations such as lack of local market knowledge and short-term pressures from investors. However, our view is that the primary reason for failure is the lack of *leadership in thought*, a critical ingredient for global success.

We have discussed the Global Index model in detail in the previous chapters and the eight dimensions in which companies have to execute well concurrently. However, in order to succeed, one must change one's mindset. This change can only come from the very top of the organization. In most cases, the small group of senior executive leadership needs to first change its own mindset and then ensure that they push this thinking across the entire corporation. In many cases, this thinking will have to extend beyond the company to its investors.

Change in thought requires a shift in thinking in a few critical areas:

• Think with an investment orientation for the long haul—It takes time to acquire knowledge of the local market and to fine tune strategies to succeed. There will no doubt be many pitfalls, potholes and bumps along the way. The organization has to be patient and

willing to make additional investments beyond their original plan, if the situation so demands. Running a global enterprise with spreadsheets, particularly during the incubation phase, it a sure recipe for disaster.

- Eliminate parochialism and 'the headquarters' mentality— Nothing can be more damaging to building a relationship or a global team as parochialism, talking down, or disrespect for the knowledge and expertise another individual brings to the table. GE has noted that their headquarters are not the fountainhead of all knowledge. This is how everyone has to think within the global landscape. Each team member, partner or colleague brings something special to the table. Effective leadership is about tying together this entire group of contributors into a single harmonious group working on a unified set of objectives. Senior leadership will have to work aggressively to ensure elimination of this 'headquarters' mentality.
- Create a global leadership talent pool—This is by far most important yet most difficult for the leadership to build. Global sameness of people orientation and process commonality can be only achieved if the enterprise builds a global talent pool that is diverse in nature and rich in terms of expertise and capability. Globally successful enterprises such as Unilever, GE, HSBC and many others, have concerted efforts to develop global talent to drive their global ambitions.

In our recent experience, we have begun to find companies that exhibit the right leadership in all dimensions. Finnair, despite being one of the oldest airlines, remained relatively small, since it is based in a country with a small population and the Warsaw Pact only allows airlines to fly aircrafts between their home countries and one destination in another country. However, recognizing the global phenomena, understanding shifts in population and where the markets are likely to be in the coming decades, Finnair which had no presence in the Asian markets has undertaken an Asian strategy for expansion. Even though it has a small route map, it has tapped into large populations of emerging markets of Korea, China, India and Thailand, from where large numbers of people need to travel to Europe and US for business or personal reasons. Finnair has invested in new aircrafts, provides localized Chinese, India or Korean meals and movies, and above all, has understood the necessity for politeness, which is much more so in the East than the West. This airline truly provides a great experience in all dimensions-on time quality service, a modern fleet of aircrafts, value pricing for price sensitive markets, choice of country specific food and entertainment, and a touch of the local culture in their

treatment of their guests. Their much larger counterparts can learn from this innovative airline, which is in it for the long haul, and is executing business with a locally sensitive mindset.

LEADERSHIP IN PERSONNEL

So What are the Leadership Traits?

The role of leadership in a global enterprise is to continuously challenge the existing business model and to embrace promising new approaches and techniques. This often requires leaders to venture into forbidden territories such as deliberate value-migration, cannibalism or creative destruction.

The global leader has to understand all the globalization levers such as the global marketplace, technology convergence, possibility to tap global human capital, and availability of capital for research. In addition, they need to be sensitive to megashifts and shifts in the business environment, such as shrinking cycle times for innovation, and a requirement of service excellence. In addition, leaders have to incessantly innovate and find ways to optimize across the value mosaic, often changing the rules of the game for the incumbent players by using disruptive technologies and approaches. Leaders have to inspire their entire organization so that they are energized to take on the challenges that transcend organizational, geographic and cultural boundaries. Within such progressive leadership lies the secret to success.

Over the years, organizational consultants have developed many leadership models. These include command and control and adaptive management styles pioneered by the Hays Group, extraordinary leader models developed by Zenger and Folkman, to industry stage leadership models proposed by Lawrence Miller. Many of these models have suited organizations and companies well. However, none of these models are robust enough to withstand the requirements of multi-country, multiculture, multi-system requirements. Based on our experience in having worked with many global organizations, we have developed a seven point leadership model shown in Figure 10.1.

We will discuss each of these attributes in detail.

Character

First and foremost, within a global context, leaders need to exhibit a flawless character in terms of honesty, integrity and fairness, and they have to put the needs of their employees and that of the company above their own. In operations dispersed in locations that are thousands of miles apart,

FIGURE 10.1

Leadership attributes



it is impossible to oversee and scrutinize the details of every action that an individual or the teams underneath him or her take. Therefore, companies must find leaders who exhibit the highest standards of business conduct, to whom they can entrust their operations and their extended teams. Additional corporate training on legislative requirements such as US's Foreign Corrupt Practices Act, will assist these individuals, who, in turn, can ensure that their operations are consistent with all required domestic and international laws.

When managing larger geographic regions or the entire operation, the leaders must ensure that they make decisions that appear fair to the constituents. I have often heard individuals complaining that they were passed over for a coveted promotion, which was offered to someone better connected to the promoting manager or executive. While sometimes this may be the right decision from the corporate perspective, since the promoted individual may be more deserving, it needs to be so communicated. In rapidly developing economies across the Asia Pacific region, employees have more choice and are not likely to work for organizations they consider unfair. Sometimes, things can be even more damaging. A company having a great reputation at home, may be tagged as a mediocre company by highly connected locals because of such issues.

Leaders have to be exemplary role models for their teams and need to keep all promises and honor all commitments. This may often require standing up to the system and the corporation.

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Synergist

As we discussed earlier, no corporation itself has the resources to succeed globally over long periods of time. Technologies, markets, customer tastes and competition are continually changing, and it is almost impossible for a company to be adaptive, flexible and responsive to all these changes, simultaneously. The global corporation, however small or large, can only succeed through collaboration across partners, suppliers and its own teams across countries. While good coordination will yield good results, it is not enough within the global context. As they say, 'there is gold in 'em hills', so also, there is additional capability and innovation that can be squeezed out of the value web of suppliers, resellers and the dispersed competency centers of the enterprise. The leader must have the ability to dig deeper than a simple buyer-supplier relationship, or a simple outsourcing or manufacturing destination for its parent company. Instead, the leader needs to work with players within the extended supply chain and figure out additional synergies that can be created by collaborative thinking across the value web. As an example, the leader should not accept that their operations in China or India are simply a factory or offshoring destination of what is decided in the headquarters in the US or Europe. Instead, he needs to ensure that the headquarters understands the full capability of the global teams and entrusts the local leadership to deliver. A very early example of this was of Texas Instruments that routinely began to co-develop its chips and software using engineers in the US, India and China.

A globalized corporation will have an increasingly complex organizational construct requiring enhanced relationship management skills. The leader must have a heightened desire to understand customer, employee and partner behaviours in different parts of the world. In a virtual team set-up one needs far more technology to manage the different groups and make them work in unison. The ability to bring collaborative influence amongst all of its constituents demands that the leader drive a synergistic vision and is able to install processes that fosters innovation and advanced problem-solving capability among people who come from different disciplines, countries, organizational ranks and competencies. Such a leader has to garner greater team orientation, so that he can optimize the business operations across disparate groups and geographies and balance the right mix between innovation and control. Additionally, leaders need to contribute themselves by infusing their expertise, and also need to leverage their extended relationships, both within and outside the corporation, to facilitate the overall processes.

During the last 15 years, the way people work has totally changed due to advances in electronic communication and the Internet. Most modern corporations have teams located in different time zones and countries spread throughout the world. It is impossible for a leader or a group of leaders to be physically present at all the locations where the employees work. It is important that the leader knows how to manage virtual teams and teams at different locations.

Sam Walton, the legendary founder of Walmart, the world's largest retailer, considered it extremely important to stay in touch with the field. While he initially travelled to each of his retail stores on a regular basis, he nevertheless realized it would be impossible for him to visit every store as he continued to expand rapidly from a few stores to thousands over the years. He then leveraged technology and set up video-conferences through which he communicated regularly with all his employees in the field. This interactive mechanism allowed him to duplicate the management style of walking around and ensuring everything was ship-shape. He was able to ensure that the stores were driving revenue aggressively, and he captured employee issues and concerns first hand, so they could get the highest levels of attention. This enabled him to achieve a high morale within the teams that were directly in touch with the customer.

Performs

Somebody once said that if he had to choose between praise and performance, he would choose performance, as it has lasting value. So, most leaders have to get out of the praise trap and focus on performance by taking the right initiatives, establishing stretch goals, and inspiring the team to higher levels of performance. Business history is strewn with high profile CEOs who have fallen by the wayside because they simply could not deliver. High visibility advertising and getting noticed in the marketplace is one thing, but delivering on results in quite another. If you can accomplish both, nothing succeeds like success, but if you don't deliver on the latter, then the former doesn't really matter. Leadership is not just about short-term business performance to keep the Wall Street analysts happy, or doling out huge bonus checks to the senior management. Instead, it is about sustained business performance over the long-term where the company becomes more and more valuable in the minds of the customer as one that meets their business and personal needs.

Business leaders need to deliver on results, and need to do so consistently. While they may occasionally have a bad quarter here and there, they must know how to take corrective action immediately, so they continue to drive towards the expected results. The global leadership team should not be one that readily accepts the performance metrics pushed down by the headquarters. We already pointed out earlier that objectives in a globally successful corporation need to be set in concert with local leadership. However, true excellence in local leadership demands that the local leader himself pushes to stretch goals, both with the corporation and with his or her local team. This dual approach firstly tests whether the corporation is prepared to accept bigger targets make available the required resources in the form of additional investments and personnel. Secondly, it energizes the entire local team, since they now feel that they are part of a global organization, and are pushing for excellence and success as one of the top performing teams within the global corporation.

Regular and detailed tracking of results is important, based on usual business reporting cycles, such as a month, and both the corporate and local leadership need to work in concert to ensure that appropriate actions are taken for success.

Innovative

A leader has to be one who can think outside the box, embrace new ideas and change, and inspire their teams to do the same. A leader also has to be innovative along multiple facets. In other words, he should be able to:

- Develop strategic perspectives
- Be a change seeker or champion change
- Innovate locally by leveraging global capabilities.

As we described earlier in Chapter 6, ITEC is driving innovation at an unprecedented pace. The world is full of innovation. However, as soon as a company comes out with an innovative product that is successful in the marketplace, hundreds of 'me-too' clones and low cost imitations swamp the market within the batting of the eyelid. Therefore, leaders have to think beyond the copycats who piggyback on innovations without making any investments. They have to develop longer-term *strategic perspectives* and be able to define a path of continuous innovation through which they can outsmart competition.

Beating competition through new products, processes and approaches is only one form of innovation. Often, methods and processes within companies become static and entrenched, and over time, the rank and file simply follows them thinking the corporation will never change. However, many methods and processes may not be appropriate for different geographies and markets. Therefore, the leader has to be able to challenge the status quo and be a *change seeker*.

One such mechanism is to create a cross business, cross-country collaboration community. Virtual communities are an effective mechanism for knowledge transference, and can accelerate innovation through better collaboration among extended teams. Through regular interaction, the community members become more open to sharing and recognize that their power is in the collective interconnected community's knowledge.-Finally, global innovation is accomplished through global knowledge and resource leverage. Often, many companies, particularly those with multi-local mode of operations let the individual country or regional operations make local decisions. This often results in local operations getting disconnected with the international operations. In today's world, corporations can no longer afford to have multi-local operations; instead they need to operate as trans-nationals. Whether the leader is within a MNC, or a virtually interconnected enterprise, they need to think beyond their own directly controlled resources and need to leverage the global resource pool for innovation. Then only are they fully positioned to be successful.

Communicative

Political leaders provide some clues on how to be effective communicators. Often derided for not being honest, or not keeping their promises, successful political leaders are no doubt highly effective communicators. They are able to understand the needs and requirements of their constituency and are able to effectively communicate how they would address those concerns. They are able to do so effectively after they are elected, even if they do not make good on many of the things they had promised. Political leaders are more than simple communicators. They often present a grand vision, and are able to reinforce the vision through actions and effective communications. Business leaders, within a global context, need to do the same.

Many companies recognize the value of effective communications and often invest to train their key leaders through personal coaching classes. Effective communication is about:

- Communicating regularly with employees.
- Being honest in communications.
- Using simple language, but communicating powerfully, usually with a message that inspires and motivates.
- Using all mechanisms including email, town hall meetings, web conferences and actually making the trips to places where employees are located.
Good leaders spend the time to build relationships throughout the organization, which comes in handy when working in an increasingly time constrained business environment. This has become more difficult in recent years as virtual space work has increased and companies are reducing their travel through use of electronic tools. Senior management needs to ensure that there is enough funding so that key leaders are able to meet with some regularity and exchange notes to keep the network robust. Only then can leaders tap into their relationships and make things happen, which would otherwise be impossible.

Feedback that goes beyond the local group of direct reports into a global feedback mechanism is important for ensuring leadership effectiveness globally. Progressive leaders can use this feedback to their advantage and work on being more and more effective.

Expert

This is the core attribute on which the rest of the above-mentioned attributes are built. First and foremost, the leader should have deep knowledge of the subjects, which he or she is charged with. This includes having a high degree of technical and professional expertise to analyze business issues and solve the associated problems. In addition, they need to have local and international business insights and a proper understanding of their customer's wants and needs. In fact, a true barometer of expertise within a global context is that they are sought after for their expertise, throughout the corporation, and by customers. In addition, they have to have the ability to train and motivate people around them and lead by example. Their expertise will truly show when they are able to clone their knowledge into the minds of several other leaders. Expertise of true leaders are reflected in the high performance organizations that they create around them. Teammates trust the ideas and opinions of such leaders because of their in-depth knowledge and experience. Those working in this kind of an environment are fortunate to see fast-path decision-making and do not suffer from 'analysis paralysis' that often plagues groups where there are no natural leaders.

To sum up, expertise attributes expected of global leaders are:

- Ability to anticipate potential issues and challenges and respond to them quickly.
- Have a deep knowledge repository of the business and technical aspects of the business.
- Can spot new trends and their potential, and energize the corporation to take advantage of them.

Sensitive

Leaders need to provide an environment within which their teams can grow and flourish. They need to provide an environment that is free of fear, harassment and retribution. Operating styles like these will automatically boost morale and motivate teams who often cannot interact with the senior corporate leadership. Since the global corporations will have geographically dispersed teams and individuals with many ethnic, cultural and religious backgrounds, the global leaders need to be sensitive to the requirements and customs of each individual and need to treat them with uniform respect and fairness. When they accomplish this, they are viewed as ones who care for their people. As has often been noted by management gurus, if you remove the issue and barriers, it automatically boosts the morale of the team, and they are likely to perform at much higher levels.

Within a global context, the leadership, particularly at the headquarters, has to deliberately work on removing the 'headquarters superiority' syndrome, treating individuals in smaller economies with disrespect or stereotyping individuals from one particular ethnic background. The resources that are working for a company in different geographies are the resources of the company itself, and the overall global team is what the company has invested in. This is what all the teams need to respect and leverage. While it is relatively easy to say this, there is nevertheless a huge amount of prejudice that exists within companies, particularly as one gets below from the top one or two layers of senior management. This is where the bulk of the contributing masses are, and this is where the most focus needs to be. The challenges are huge because we have not yet aligned to a full globally dispersed model. Companies that expanded to push their products in the global markets are better experienced at this, since they were simply expanding operations and providing additional jobs to teams in the home country. However, in cases where companies are trying to balance their global talent pools, they are moving many blue and white-collar jobs to the new sourcing destinations. What additionally compounds the problem is that the people who hold the knowledge have to transfer their expertise to an individual in a distant land to whom they will eventually lose their job. This is a tough situation, but nevertheless a necessary one. Companies can either provide incentives to these individuals and see if it works, or otherwise, simply remove such individuals from the front and use other, more willing and open-minded personnel to participate in the knowledge transference.

The leaders within the company have to help their organization overcome prejudices and negative thinking and assemble a team of enterprising and high-energy individuals who can operate as a team. These are the true leaders.

THE WELL-ROUNDED LEADER

When a leader collectively exhibits all the above attributes, they also exhibit the coveted characteristics of inspirational and charismatic leaders who can energize groups to follow them and execute plans towards a singular set of coordinated objectives.

Given these basic traits, the global leader needs to be continually transforming the team and positioning it for the next wave. A global leader must aggressively seek new ways of doing business, new processes, new management thinking and new technologies that can impact the business. It is like trying out creative cannibalism or creative destruction to seek out new ways of doing things.

Finally, how do we measure the success of global leadership? The only way of measuring success for achieving a dynamic, globalized leadership team is by looking at its track record, i.e. whether it is successful in its pursuit of transforming its business model and offerings every two to three years so as to align itself to key market parameters such as customer choices, ability to withstand regional economic upheavals and market and competitive pressures.

SUMMARY OF KEY THEMES

- 1. Leadership for globally successful organizations consists of not one, but two major components—leadership in thought and leadership in personnel.
- 2. Leadership in thought means a shift in thinking in a few critical areas:
 - (a) Think with an investment orientation for the long haul
 - (b) Eliminate parochialism and headquarters mentality
 - (c) Create a global leadership talent pool
- 3. Since the role of leadership in a global enterprise is to continuously challenge their existing business model and to embrace promising new approaches and techniques, the leader needs to have demonstrable expertise in the following areas:
 - (a) Strength of character
 - (b) Ability to drive synergies
 - (c) Consistently perform at very high levels
 - (d) Be continually innovative

- (e) Communicate effectively
- (f) Be an expert in several disciplines
- (g) Be highly sensitive to individual beliefs and cultures
- 4. Desire to win in the global economy will not materialize if the leadership with these traits is not in place, both at the apex level and several layers down within an organization.

ELEVEN

Global Management System

"Management" means, in the last analysis, the substitution of thought for brawn and muscle, of knowledge for folklore and superstition, and of cooperation for force ...

Peter Drucker

IN OUR PREVIOUS CHAPTERS, we have discussed various strategies and specific structuring of companies, in order to strategically position them to win. These strategies covered companies of all sizes and provided a promise to companies who today had limited resources and capabilities, but could nevertheless put together a winning value proposition with innovative partnerships within a highly interconnected global value web.

However, strategies and initiatives are not enough to ensure success. In order to ensure sustained growth and success, one must put together a comprehensive management system, which provides all the checks and balances and allows quick identification of corrective actions, when required. Hand in hand with the management system are business or performance metrics that need to be measured and managed. It is wellknown in management circles, what doesn't get measured or managed, doesn't yield the results. Nobody says it better than the fast growing health fitness chain, LA Fitness, which uses the catchy slogan, "What gets measured, gets improved."

Effective management of success, locally or globally, requires putting in place the two major components we just described:

- Global management system
- Global metrics that ensure alignment to the management system

GLOBAL MANAGEMENT SYSTEM

A comprehensive global management system is one that is designed along the traditional lines of define-act-measure-correct, or any of the other total quality of feedback loop management strategies that are defined in business literature. Similarly, we have used a simple management system that comprehends the complexity of the global environment and provides a powerful tool for companies to ensure ongoing effective business management. This Global Management System is defined in Figure 11.1 and consists of four major components:

- 1. Vision
- 2. Value drivers
- 3. Tactical initiatives
- 4. Measurements and evaluation

However, no system in engineering or business is complete without an effective feedback or corrective loop where one can identify the difference between what was intended and what was actually accomplished, and then take the corrective actions to fully achieve what was intended.

We will discuss each of these steps and the feedback loop in detail.

Setting the Vision

Most companies often make the mistake of extending their business vision or strategic intent as an extrapolation of their operations in their current markets into a global framework. While this works sometimes, it often results in frustration since global markets are not homogeneous, as the extrapolation strategy implies. To define a global vision that is effective and has a high likelihood of success, the companies must properly analyze business dynamics in all the markets in which they intend to operate, and craft a strategic vector that comprehends all their strengths, the global landscape and how they will leverage global resources. This, in turn, can enable capabilities that can help the company attain an effective position within each marketplace. The details of strategies in Chapters 8 and 9, which define the current global structure, company positioning, and then final structuring for success, provide major clues on what a company should vie for and can subsequently position itself for.

Regardless of the current situation, these are not times for hiding or being conservative, but instead are times for bold moves. In the current global slowdown, many companies have shied away from making investments. Interestingly enough, this is the best time to make investments since many companies can be acquired for a small fraction of the cost of what they were



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FIGURE 11.1

worth only a year ago. Those companies that make investments now will be better positioned for growth as we recover from the economic slump. We will provide more clues for specific positioning as we get into the metrics later in this chapter. But simply put, the winning strategy or vision needs to encompass aggressive growth in all current, mature and emerging markets, and needs to leverage the global talent pools. Key intellectual property has to be protected, but global knowledge pools can be leveraged for shortening cycle times and for more effective revenue stream capture in global markets.

Defining the Value Drivers

Defining the key value drivers continues to be a tricky exercise and whenever companies think they have figured it out, in comes another competitor and throws a 'curve ball', which causes everyone to re-examine their strategies. For too long, companies have promoted static models for business, because once they figure out the winning formula, they have little incentive to make additional investments to innovate and change. Instead of using a progressive style of management and continual investment like some exemplary companies such as 3M and Toyota, most go into a protective mode and try to promote the status quo by using various techniques such as putting in place punitive switching costs, systematically eliminating competition by buying out smaller players or providing incentives to lock-in customers for the long-term. None of these techniques in any way promote innovative thinking. Instead, they simply try to maximize the return for the shareholders, albeit for the short-term, since such strategies are never, if ever, successful in the long-term.

Earlier in Chapter 5, we discussed industry progression and emergence of global value webs. Figure 5.1 depicts value progression from cost, value, competence to global index which results in efficiency, effectiveness, intellectual property or global value web based competitive plays.

Companies need to choose their basis of competition to reflect both local market realities and the specific attributes their products have. As an example, regardless of the attempt to differentiate and move the PC to a value or expertise based product, it nevertheless remained a commodity in almost all the geographies, whether individuals had a high disposable income or not. Today, almost every PC manufacturer has tried to respond by having a multi-faceted strategy which included four to five classes of machines that cover the range of price sensitive customers to those that are willing to pay more for special features that provide additional functionality. In addition, what may be a value based or cost based product in one location, may not quite be so in another market. Different markets have different attributes that range from being highly price sensitive, to being very brand conscious and even status conscious. As witnessed during the recent economic slowdown, luxury brands suffered a drastic decline in sales in mature markets, e.g. LVMH¹ saw sales of their luxury goods decline by more than 50 per cent in several of the G7 markets. However, they saw an increasing demand in several of the emerging markets where the population that can afford these luxury goods is growing very rapidly, and continues to drive demand for these goods regardless of their premium pricing. As a result, several of these luxury goods companies are seeing an increase of 30 per cent or more in their sales in these emerging markets! These illustrative examples of PCs and luxury goods provide valuable lessons that the analysis needs to be much more refined in order to effectively define what and how to sell in different markets while still leveraging the overall brand.

Identifying Tactical Initiatives or Projects

The detailed structuring of processes were covered in detail in Chapters 8 and 9 where we covered specific processes, capabilities and competencies, and how they need to be structured globally within various geographies to provide the 'biggest bang for the buck'. We refer the reader back to those chapters for additional details. However, in summary, companies need to detail initiatives and projects that will enable them to attain their specific objectives. These include:

- Disciplined optimization of global production systems and human capital.
- Marketing and selling initiatives in selected major markets.
- Developing partnerships and sourcing strategies to maximize the return, not just from the company's own resources, but through leverage of capabilities of partners in the value web.
- Proper leverage of technologies and systems to integrate all the dispersed islands of capability within the company and those of its partners, to provide effective real-time information and decision making in order to optimize operations across the global value web.

¹ LVMH. An international group with over 50 luxury brands such as Moet & Chandon, Louis Vuitton, Fendi, Christian Dior Perfumes etc. LVMH stands for Louis Vuitton Moët Hennessy.

Measuring and Evaluating Performance

Business performance needs to be continually monitored and evaluated, and appropriate actions need to be taken to ensure everything is operating in harmony across partners and countries. Within a global context, one needs to identify and set the right metrics to ensure:

- Progression along all dimensions of the Global Index to help accomplish the desired GI footprint.
- All individuals and partners have an incentive to work on a common set of objectives and think and act as one.

Too often, companies measure and manage by key financial indicators. While these are important, they do not necessarily provide a comprehensive view of what is happening in the market. Therefore, many additional measures, such as market share, quality, reputation in the local market, employee morale, fairness with suppliers, ethical index and other non-financial measures are equally important. Our detailed treatment of Global Index in Chapter 3 provides additional information on what some of these metrics should be.

Feedback or Corrective Loop

Once all the key performance metrics are ascertained and tracked against targets, associated corrective actions can be taken along all the dimensions. These include:

- Fine tuning the vision—Ensuring that the vision is consistent with the resources and capability the company has, particularly in international markets. International market visions require play for the long-term as well acceptability of lower rates of return, compared to developed and mature markets.
- Adjusting strategies—As one gathers more local data, one can adjust strategies to reflect local market realities of competition, consumer value, disposable income, consumer excess and what is valued, depending on local culture, beliefs and practices. Companies need to be flexible enough to take local market information and adjust strategies and objectives rather than try to hold leadership to specific targets, particularly in the incubation phase of new market development.
- Aligning initiatives—By tracking unit costs and doing earnings and loss analysis, companies can identify what key actions need to be taken to address any shortcomings in cost structure, product attributes, market positioning or any other aspect of the business.

Companies then need to take action by ensuring production is consistent with the right cost structure that will be effective in the local market.

GLOBAL METRICS

As we mentioned earlier, effective business management will require the ongoing management and tracking of financial metrics such as sales, profit, market share and their associated increase in the various markets. However, measuring and managing effectively at a global level extends beyond the traditional financial, customer, internal efficiency and learning organization metrics, as detailed in *The Balanced Scorecard* by Kaplan and Norton. Global metrics needs to extend to detailed metrics along the eight dimensions of the Global Index. Some key metrics along these eight globalization index measures are:

Primary Factors	Causal Factors
Revenue (Markets)	Human Capital
Processes	Metrics
Innovation	Localization
Leadership	Objectives

- **Revenue**—sales, market share, market share increase, value migration into new product streams and sales by product generation (n, n-1, n-2, n-3, etc.).
- **Human capital**—leverage of talent in the right places for expertise for production work to minimize labor costs in the final product, and improve employee morale index.
- **Processes**—designed for proper efficiency, effectiveness and sustainability, which includes flexibility, resiliency and maneuverability. At a detailed level, it requires tracking of unit costs of production, leverage of economies-of-scale and economies-ofscope.
- **Metrics**—right metrics that cover all aspects of business management at a global level. This includes the metrics defined in this set.
- Innovation—innovation along all dimensions, including process, human capital development, marketing and selling techniques, product and product management reflecting current generation technologies and product cycles.

- 212 Winning in the Global Economy
 - Localization—meeting of local market requirements for customization, pricing, production and delivery including local expertise.
 - Leadership—leadership wedge, or talent across all markets and geographies the company operates in, assessment of key leaders for openness of thought, and diversity measurement.
 - **Objectives**—business objectives within each market, and alignment of these, based on market maturity, market growth curves, local and global economic conditions.

As we have asserted earlier, the winning formula in the global economy is not very complex—it is relatively simple, i.e. to:

- Leverage human capital from global resource pools.
- Weave together production and expertise so that each activity is performed at the place from where it can deliver the maximum value.
- Optimize global production.
- Tap into all major and emerging markets, either through own resources or through those of partners who have convergent objectives.
- Tie together all the global resources with technology that provides real-time, accurate information for decision making.
- Promote localization and develop a global leadership team that is empowered to make decisions for their local operations.

Based on the above metrics and globalization strategies, Table 11.1 provides a summary of how to align value production with revenue realization. Several progressive companies realized this a while ago and moved aggressively to align workforce with markets. Intel announced that their workforce location would align with their markets, i.e. in 2004, 70 per cent of their workforce was outside the US, as was their revenue. IBM, Nokia, Siemens, Nestle and Unilever are some of the other notable multinational companies that derive a major portion of their income from international markets and their workforce now reflects this positioning. This positioning is not an exact 1:1 alignment since in most of these companies research, product development and major strategic business and operations planning is done in their headquarters location. However, they have often moved other chunks of their production labor, in much larger portions, to the newer and emerging markets giving them an overall alignment of resources along the lines of revenue ratio, recognizing that the value production is different at each location, depending on the expertise applied.

Markets and value	Region	Today	Desired in 3 to 5 years
Workforce location— value production			Align with best place where work should be performed
	Traditional markets	High (G7 or current local base)	Expand beyond current footprint to cover at least all mature and emerging markets
	Mature markets	Beginning to increase (expanding beyond traditional markets)	Ensure coverage of all mature markets through local resources, but balance resources globally to ensure competitive costing and expertise leverage
	Emerging markets	Low except in major sourcing destinations	Balance resources between traditional, mature and emerging markets to align resources and market value realization
	ROW	Mostly ignored	Identify key potential emerging markets and begin to invest in them
Markets— value captured			Align closer to local GDP shares to be a true global player
	Traditional markets	Dispropor- tionately focused on these markets	Treat more as a 'cash cow' and make investments to protect market share and grow with industry
	Mature markets	Beginning to increase into mature markets outside current operations	Aggressively invest in mature markets where there is low presence currently and with attempt to attain similar levels of market share as in traditional markets
	Emerging markets	Current presence not reflective of market potential	Invest in the long-term as these markets could be bigger than all mature markets combined, e.g., cell phone business in emerging markets have eclipsed mature
	ROW	Derived through third parties but mostly ignored	Identify which of these markets will be important in the near future and begin to develop presence either directly or through local partnerships

Table 11.1: Global metrics alignment

Contd ...

 Table	11.1	Contd

Markets and value	Region	Today	Desired in 3 to 5 years
Global alignment between production and capture			Attaining High GI—align production and consumption along all the GI factors
	Corporate strategy	HQ location	Single logical location with global inputs
	Finance	HQ location	Single chart of accounts managed by each country based on local legislative requirements
	Marketing	HQ location	Singular global brand imaging with localization driven by country management
	Sales	Multi local	Local sales management consistent with growth of local markets
	Production	Some leverage of low cost labor pools	Dynamic integration of global production capacity and leverage of marginal cost plays
	Operations	Some leverage of low cost labor pools	Alignment of location specific local value-add coupled with location independent lower cost leverage which is dynamically integrated in real-time with mobile technologies
	HR Management	HQ location	Corporate policies with local action based on country practices, cultures and regulation
Overall global alignment	Across all geographies	Mostly low	Global alignment

Regular tracking of key measures and associated actions provide the recipe for success. Senior management needs to review progress in each country and geography on a regular basis, and then needs to work with local management to develop a combination of collaborative and empowered business management approaches. This is to ensure a high morale index and quick actions against parameters that are out of alignment with expectations.

SUMMARY OF KEY THEMES

1. Strategies and initiatives are not enough to ensure success. Effective management of success, whether locally, or globally, requires putting in place two major components:

- (a) Global management system
- (b) Global metrics that ensure alignment to the management system
- 2. A comprehensive global management consists of four major components:
 - (a) Vision
 - (b) Value drivers
 - (c) Tactical initiatives
 - (d) Measurements and evaluation
- 3. Once all the key performance metrics are ascertained and tracked, associated corrective action must be taken by:
 - (a) Fine tuning the vision regularly
 - (b) Adjusting strategies as required
 - (c) Aligning initiatives repeatedly
- 4. Detailed global metrics along the eight dimensions of the Global Index needs to be put in place covering:
 - (a) Primary factors, i.e., revenue (markets), processes, innovation and leadership, and
 - (b) Causal factors, i.e., human capital, metrics, localization and objectives
- 5. The simple winning formula in the global economy consists of:
 - (a) Leveraging global resource pools
 - (b) Weaving together production and expertise to add maximum value
 - (c) Optimizing global production
 - (d) Tapping all major and emerging markets directly or through partners
 - (e) Tying global resources with technology to track tasks and targets
 - (f) Promoting localization and developing an empowered global leadership team
- 6. We are early in terms of true globalization. The time is now before the sun reaches its zenith to take the bold steps and go out and WIN!

TWELVE

Disadvantages of Globalization

Our greatest glory is not in never falling, but in getting up every time we do ...

Confucius

So FAR, THIS BOOK has dealt primarily with global opportunities and how to shape strategies and action to one's advantage. In addition, careful planning and crafting of strategies can make one relatively resistant to economic downturns, and if one takes the right risk mitigation strategies, one can be better positioned, more resilient and stronger than even the well-heeled competitors. While globalization and economic expansion provide the opportunity for economic well-being for the large, previously impoverished masses, it nevertheless has a sad aspect where many of the good things that we have valued and revered could decline in value, or forever disappear, much to the detriment of humanity.

In the era of rapid global economic expansion, and sometimes irresponsible and rapid exploitation of the planet's natural resources, we have seen many species of plants and animals disappear, and many others appear on the endangered species list due to reasons ranging from destruction of natural habitats to poaching. Many forests are disappearing including much of the rainforests of the Amazon, often linked to the expansion of the Sahara desert. Similarly, enough has been talked about global warming due to burning of fossil fuels, which are themselves being depleted at such as rapid rate that future generations will have to find different ways to meet the energy needs of human beings. However, there are a few areas where we believe that rapid profit-making exploitation of globalization is having a profound negative impact. These are:

- Reduction in variety
- Irresponsible exploitation of natural resources

- Loss of the arts
- Loss of language and human knowledge

We will treat each of these in detail and also highlight some of the programs that governments and industry can take to greatly minimize or completely eliminate the potential negative impacts of globalization. Clearly, the above list is not a comprehensive list of the potential negatives of globalization, and since this is not a book on politics or power play, we will not discuss other talked about negatives such as increasing dependency of smaller nations on wealthier nations, and increased exploitation of the world's resources by powerful multinationals.

REDUCTION IN VARIETY

Several years ago while on a business trip, I was seated next to a senior sales executive from Pepperidge Farm, a well-known purveyor of baked goods, including breads, cookies and other snacks. While we exchanged notes, I observed to her that I always regarded Pepperidge Farm as one of the best cookie manufacturers in the US, and that they, through their innovation in the 1980s, had created dozens and dozens of varieties of cookies that linked both the old world and new world tastes, resulting in a distinctive position for them in the marketplace. I lauded them on their excellence and variety as they had now begun to command the largest shelf space for premium cookies at most grocery stores. Our discussion was going quite well, so far. Then, I was finally able to ask her the question that had been raising my curiosity for several years. Why had the variety suddenly disappeared? Pepperidge Farm, that only a few years earlier, typically had 50 to 60 different varieties on the shelves, now had reduced it to something shy of even the baker's dozen. She was somewhat taken aback and relatively quiet on this observation. Unable to get any response, I finally asked her if, in the quest of increasing the profits they had done the classical analysis and found 10 per cent of products accounting for 90 per cent of sales, and therefore, eliminated the remaining 90 per cent of the product variety to push through mass production of the select 10 per cent, which would result in more streamlined and optimized manufacturing and associated shelf space management with no stock-outs. She reluctantly admitted that this, in fact, was the case.

While this story is based on a actual discussions with an executive of Pepperidge Farm, my intent is not to single them out, but to illustrate this as a routine practice that almost every company has taken advantage of, in order to reduce variety and thereby enhance their mass production capabilities and associated profitability. The landscape is strewn with

examples of products with fewer variety now available. Technology in the form of point-of-sale terminals, real-time inventory management and similar computer programs are continuously monitoring every sale made in every store. Companies are continually analyzing how to maximize their profits by capturing even more information about consumer buying patterns through the loyalty card or frequent-buyer card, something the consumers often regard as a way of getting discounts on specials. With this shopping pattern analysis, companies are able to gradually increase prices on premium products where consumers are less price sensitive, while systematically eliminating slow moving or unprofitable products. As a result, the 80:20, or even worse, the 90:10 rules are routinely being applied. Whether it is McDonalds, which has a relatively small menu, or a large retailer such as Macy's, product selection is continually declining to a smaller subset of products that are relatively fast moving compared to what existed a decade or two ago. A notable example of reduced variety is in men's socks. These were available in 5 to 6 sizes in the 1970s, but are now only available in one stretch size called 'One Size Fits All,' which really fits no one correctly, other than the rare fortunate Size 11 customer.

Companies often forget that what made them great in the first place, was the unique value they delivered to their customers. Now, the quest for profit has resulted in the throwing out of all the smart business operating principles that made them successful. While companies clearly need to manage profitability, they should remain cognizant of customer demands and not let financial or competitive market forces pressure them into diluting or destroying the basic value that they are known for. If we take the Pepperidge Farm example further, they had begun to resemble the massproduced Nabisco and Keebler brands with limited variety. The variety of newer products that made Pepperidge Farm great began to disappear. However, I do have to laud them for their recognition of the fact that this is occurring. They have recently started taking steps to address this issue, and though limited, one can begin to see resurgence in the variety of their products, which have almost doubled in the past two to three years.

What can we do?

The winning formula is relatively simple: Manage a reasonable mix of variety and new product introductions using the classical 2×2 BCG¹ matrix of cash cows, stars, dogs and unknowns so that you have a portfolio of products that allows for continual renewal and differentiation, rather

¹ The Cash Cows to Stars framework is the classical portfolio management framework developed by Boston Consulting Group (BCG).

then be pushed to the lower left hand quadrant of the cash cows. While in the short-term, it can enhance margins, it can also forever destroy brand value and often result in a leader becoming an also-ran player in the industry.

IRRESPONSIBLE EXPLOITATION OF NATURAL RESOURCES

Enough has been written over the past few years on global warming with possible linkage to excessive burning of fossil fuels, most of which has occurred since the advent of rapid industrialization in the 20th century, and further rapid global acceleration after 1980. However, as globalization has resulted in a global demand for goods and services, resources are being exploited at an unprecedented rate around the world, often without any comprehension of the long-term impact.

The West has gone through the industrialization and development of their countries over two to three centuries. What today looks as neatly planned, relatively green and relatively pollution free, wasn't always the case in these countries. Vast tracts of lands were deforested, land was stripped through mining, air was highly polluted with both particles and toxic gases, and hazardous chemicals were routinely dumped on land, in rivers and the sea. Alvin Toffler, in his bestselling book, *Future Shock*, observed how irresponsible consumption in a throw away society would strew the land with paper, plastics, bottles, cans and other man-made materials, which not being bio-degradable, would result in vast dumps of garbage. Governments were already taking notice through the 1950s and 1960s, but it took until the 1970s for the US Government to establish the Environmental Protection Agency to oversee the protection of the environment from man-made mechanisms.

The EPA established very stringent norms that eliminated a long list of environment pollutants. These include:

- Elimination of lead in petrol and paints resulting in the elimination of millions of tons of toxic lead in the atmosphere.
- Cleaner auto discharges that are mostly water vapor and carbon dioxide.
- Catalytic converters in exhausts, to eliminate much of the nitrous oxides, sulfurous acid, carbon oxide, unburned hydrocarbons and soot present in engine exhaust, and
- Tracking and proper disposal and elimination of toxic and hazardous materials.

In the movie, *Inconvenient Truth*, the former US Vice President Al Gore shows in one sequence how they tracked the carbon dioxide levels in

the atmosphere by drilling ice cores in Antarctic Ice and where the ice core shows increasing soot levels every year, till around the mid 1970s when EPA was able to impose its norms. With the establishment of the EPA in the US, most governments around the world have begun to establish environmental norms for all destructive man-made pollutants ranging from auto exhausts and industrial waste to banning plastic bags that are clogging water bodies and are strewn over landscapes worldwide, from Western US to China and Africa.

While all these efforts are noble, the reality is quite different from this. This, in fact, is often the issue that comes up in several global conferences where countries have been trying to reach an agreement on greenhouse gases. The developing nations argue why they should be singled out to implement expensive technologies and reduce their emissions and pollutants when the developed nations, in fact, went through the very same stages in development and irresponsibly added pollutants to the environment. Clearly, the developed nations are taking the leadership to address this issue along with large rapidly developing nations, such as the BRIC nations. However, the damage is still being done at an unchecked pace around the world. China's rapid industrialization over the past 30 years, and the dumping of industrialization and urban wastes directly into the sea has resulted in the creation of an orangish hue spread over a large part of the South China Sea, destroying marine life within a few miles of the coast. While there are norms for effluent treatment, one can still observe vast amounts of industrial wastes flowing through large streams directly into the rivers in India, China and Africa, which has turned these once pristine rivers into some of the most polluted in the world. While EPA imposed the regulations, many of the polluting industries such as foundries, steelmaking and chip manufacturing migrated to the East, to places such as China, India, Taiwan and Korea, where the environmental norms were relatively lax. It is not uncommon to see a manhole cover in New York City, stamped, 'New York City', and 'Made in India'. Perhaps, one of the bigger challenges is the strewing of plastic in the form of bags all over the global landscape, and the massive amounts of plastic bottles and caps that are now aggregating over a vast stretch of the Pacific Ocean. Plastic, which is non bio-degradable, blocks sewage systems on land, and cause fish and other forms of marine life to choke, destroying the entire ecosystem.

What can we do?

Governments and industries can play a vital role to prevent or minimize this destructive exploitation of resources. While globalization will clearly result

in the movement of manufacturing and delivery to lower cost locations, there is no need to also simply shift the associated environmental pollution and destruction from a richer country to one that is trying desperately to improve the quality of life of its citizens. The buying nations need to work with governments, industry and buyers in their own countries and minimize this movement of pollution. When pushed too far, once can already see the negative impact, as in Madagascar, where irresponsible deforestation has essentially denuded the massive island. This has resulted in soil erosion and thereby, further destruction, a situation that most scientists believe is now irreversible. However, on the other hand, we can see responsible government actions in countries such as Canada, which is consciously preserving its land through reforestation and limiting the use of non-renewable resources, so that the land is as beautiful now as it was before the dawn of industrialization. Malaysia, also a massive producer of lumber, systematically reforests its land, thereby creating a renewable source of forestry products and protecting its environment for generations to come.

LOSS OF THE ARTS

As one travels the world, one can see a vast difference in the culture, history and arts around the world. While New York and Paris are both proclaimed as great cities of the world, there is a stark difference between them. New York clearly leaves an indelible impression with its technological advancements, massive skyscrapers, bridges, transportation network by land, sea and air, all of which make conducting business very easy. It is also a massive melting pot, attracting entrepreneurs and youth from around the world, everyone with hopes of participating in the promise of a land of unlimited opportunity. Paris, on the other hand, leaves quite a different impression. While Paris also is a large complex of business and industrial activity, it has excelled at promoting and preserving its supreme artistic heritage, which reached its peak under King Louis XVI. Every building makes its own architectural statement, as does the city in its entirety with its wide tree-lined boulevards, beautiful gardens with their sculptures and the artistic lights over the River Seine, all of which grow in beauty. As the evening shadows lengthen, the city glows with its unique lighting and the glittering Eiffel Tower, all enabling it to live up to its name of the 'City of Lights.' With its museums, palaces, gardens and a unique layout, Paris, in effect, feels like a museum where the tourists want to enjoy and take in all its sights and sounds.

There are many debates on the value of arts in an increasingly technological world. However, we will not question the value of art, or

whether is allows the inner expression of the human mind for beauty, serenity and for uncovering something that the ordinary eye cannot see. We do, however, observe that the fine arts are declining all over the world. Paris was built mostly during the age of the growth of the arts within Europe, and the city essentially became the center of art and culture. New York on the other hand, represents the epitome of business opportunity and growth. This noticeable difference also illustrates what is happening in the economically organized world. Just as we observed earlier, variety is reducing in an increasingly mass-produced world, so is the demand for the arts. It is no secret then that most of the great art treasures of the world have been credited to civilizations or individuals, usually kings or emperors, who had both time and money at their disposal. It is these individuals with large resources that promoted the fine arts in the form of paintings, sculpture, music, dancing or art in everyday life. This was seen in several dynasties around the world, from the early Pharaohs to the Ming dynasty in China, the Mughal dynasty in India, the Court of King Louis XVI in France, the Czars in Russia to the British Crown in the UK. All of these people and institutions can be credited for the great art treasures around the world such as the pyramids, the Temple of Ramses, Chinese miniatures, the Ming Dynasty vases, architectural splendors such as the Taj Mahal, the great art movements of Europe, to the best art collections from the world over which are now either in private possessions of the wealthy or in museums. However, the world is increasingly short of time, and wealth is now spread amongst people who are first pursuing their basic requirements of food, clothing, shelter, medicine and education, before delving into leisure, which is way above in the Maslow 'hierarchy of needs'.

The world had great art and music movements between 1200–1900s, i.e., the thirteenth and the twentieth century, when many of the great works of art that currently drape the Louvre, Hermitage or the Smithsonian museums were made. However, in the past 50 years, the world has scarcely taken notice of any great art movements, let alone seen the emergence of any great artists like Leonardo da Vinci, Michelangelo, Beethoven, Strauss or Picasso. In the present context, many well-heeled companies, such as IBM, which promoted arts through huge donations, now no longer have the ability to fund any such initiatives under the increasing pressure of purely 'for profit' businesses, and have discontinued programs that provided such grants.

What can we do?

Hope is, however, not lost. As more people all over the world have grown richer, they have begun to have increasing amounts of disposable income.

Many of the skills of artisans who made fine artistic products such as Persian rugs, unique embroidered and woven silk clothing in China and India, to the folks arts and music, have seen an increased resurgence due to increased demand from global tourism as well as from the nouveau riche in countries where these arts originated. Many designers are now incorporating traditional clothing designs into their latest fashions. Design schools all over the world, from Soborne to Parsons to fashion institutes all over the world have seen resurgence of traditional arts due to this demand.

Many governments are also doing what they can by promoting the arts through cultural exchange programs and tourism.

LOSS OF LANGUAGE AND HUMAN KNOWLEDGE

We had observed earlier that one of the essentials for success in a global economy is a common language for communication. With the increasing acceptance of English, it is most likely that English will eventually become the global language of communication for one and all. Today, already, this is the common language that most people use when they travel to other distant lands, be it Egypt, Argentina, Hungary, Russia or China. Regardless of where you may be from, or what your native tongue is, most people use English as the common language for communication in many countries whether it is at the passport control, for hiring a taxi at a hotel or for business transactions.

Human knowledge is the collective knowledge that we have acquired over thousands of years. Wade Davis, a renowned anthropologist, author and photographer, while presenting his hallmark thesis Cultures at the far edge of the world, in TED Talks (TED.com), observed that the world had around 6000 languages and dialects around 1950, but almost half of them have disappeared. Human knowledge, in a vast and diverse world, had been captured in languages that had grown to thousands over the centuries. While the Egyptian hieroglyphics were eventually decoded, many languages that are only spoken, written or known to a small community, are increasingly becoming isolated and disappearing as the interconnected world now communicates rapidly in an increasingly smaller subset of languages. Even well-known languages are rapidly deteriorating to a situation where the natives can now scarcely converse beyond a single sentence in their pure native tongue. Terms such as Chinglish and Hindlish, to mean an intermingling of Chinese and English and Hindi and English, respectively, are emerging. English, on the other hand, is rapidly absorbing commonly used terms from other languages, and in turn, incorporating

them within it. Davis further observes that we are now presented with a unique opportunity. With the technologies available to us today, we can easily reach the distant and the most remote parts of the planet to capture knowledge for posterity.

With the recent tsunami in the Indian Ocean in 2006, which devastated very wide spread regions from Indonesia to India, Sri Lanka and even some parts of Africa, we were able to observe an example of ancient human knowledge that could have benefitted the modern man, but it was not to be. In the Nicobar Islands in the Bay of Bengal, there are still ancient tribes who carry on their lives traditionally as they did over many centuries. Their lifestyle is protected by the Indian Government. However, there is also modern civilization on the Nicobar Islands. When the tsunami passed through the Nicobar Islands as a result of the shifting of continental plates off the coast of Indonesia, it was found that no one from the ancient tribes perished, while many from the modern civilization, including many armed forces personnel stationed at the Nicobar Islands perished. Further analysis revealed that the elderly citizens of these tribes were able to sense something from a combination of animal behavior, sounds and waves of the seas, and rapidly evacuated all their tribesmen to a higher altitude, thereby saving lives. However, the more technologically advanced 21st century settlements relied on their own knowledge and other early warning technologies, which were unable to get them timely information, and therefore they perished. Examples such as these abound. Pyramids, which have withstood the test of time in the sands of the Sahara, were built by the Egyptians 5000 years ago. While many theories have been proposed, and in spite of the most modern technology and the best human minds, we have still not been able to decipher how the Egyptians built such perfectly shaped pyramids which involved moving of massive, yet perfectly chiseled rocks several hundred feet up on the sides of the pyramids.

What can we do?

We must move quickly to protect our human knowledge, which is captured in many of these languages. As Wade Davis further queries, whether we want to submit our lives to an increasingly monochromatic and dull world, or we want to live in a polychromatic world, full of variety and color, the choice is ours. We have to ensue that human knowledge doesn't disappear with the last of an elderly learned, who may be the last one to possess the knowledge of a language that only he knows, but cannot transfer his knowledge, since he has been rendered forever silent.

SUMMARY OF KEY THEMES

- 1. While globalization and economic expansion provide the opportunity for economic well being for the large, previously impoverished masses, it nevertheless has a sad side where many of the good things that we value and revere could decline in value, or forever disappear, much to the detriment of humanity. These include reduction in variety, loss of the arts and loss of language and human knowledge.
- 2. Rapid profit-making exploitation of globalization will lead to profound negative impact in several areas, particularly in the irresponsible exploitation of natural and depleting resources.
- 3. Governments and industries can play a vital role to prevent or minimize this destructive exploitation of resources. While globalization will clearly result in movement of manufacturing and delivery to lower cost locations, there is no need to shift polluting or environmentally destructive industries from richer to poorer nations.
- 4. We must move quickly to protect our knowledge, which is captured in many of these languages and cultures, some of which are rapidly disappearing.
- 5. Government, corporations and high net worth individuals must promote world heritage, arts and culture as part of a give back tradition.

THIRTEEN

Summing It All Up

WENT THROUGH MIND-BENDING ideas and hitherto unconsidered possibilities for the winning formula in the global economy. But before we put the book aside, we must revisit one last time what we gathered so far and where we want to go from here. The next stage in our journey has to begin by taking action on the concepts and approaches discussed in the previous twelve chapters. Let us see how.

The first step towards addressing any issue is to acknowledge that there is an issue!

Burying our heads like an ostrich in the sands of negativism due to economic upheaval or euphoria due to local success is a certain recipe for missing the Global economy bus. We addressed these sentiments head-on in our *first chapter* where we noted the Emergence of a New World Order through Globalization. The new threads of the emergent order comprises major demographic shifts resulting in the global imbalance giving impetus to the shifting bases of competition, to one that has a global dimension. We noted the accelerated pace of global dispersion of economic success factors and the keys to the future. Undoubtedly, to win in the global economy, companies need to innovate in every dimension including the business model, products, services, operating models, business processes and leadership, and ensure that they have the right metrics for measuring and managing success.

But the next question is: Why is all this happening? *Chapter 2* was devoted to addressing this very question and the answer lies in the major Global Shifts that are occurring. We identified the major shifts such as shifting population bases, dispersion of productive human resources, shifting markets and economic output, all of which result in major changes in the global economic productivity and output. In the global economic roulette some win big while others become steeped in their misery. However, this is not the time for despair or fear, but the time for bold moves and in order to undertake bold moves during tough times, one must

understand what is happening underneath the surface. Every company, regardless of their current economic performance, can shape their future to their advantage if they take action now. The good news is that the world is heading towards a greater distribution of economic activity and associated wealth. In addition, the world is coming towards the end of the knowledge and economic divide between the G7 and the rest of the world, which will lead to opportunity creation at an unprecedented scale for both the incumbents in the G7 and the new emergent companies in the developing economies. Clearly, now is the opportunity for innovative first movers and fast-following, efficient second movers. Companies that take aggressive actions quickly have the opportunity to outdistance themselves from their competitors and be poised for the unique winning position, globally. It will be almost impossible for a new entrant to unseat them.

Obviously, the rules of the game are changing. It is akin to a trapeze artist engrossed in a daredevil act, having kept the audience spellbound, when suddenly a roaring lion in the nearby arena draws the audience away. This is precisely why *Chapter 3* is devoted to an examination of the *Emergent Global Models*. We emphasized the fact that despite uncertainties prevailing in the global economy, the technologies that are essentially rendering the world borderless, will continue to accelerate. Technologies, in particular, IT, Electronics and Communications (ITEC), are enabling a rapidly growing digital economy, which is vastly different from the physical economy. Companies must examine their positioning and ensure that they are moving in the right direction and exploiting these advantageous technologies to their fullest potential for their business.

But how?

Is there a recipe for sure-fire success or we just try our luck as we do in the game of lottery or while betting on horses?

The answer lies in the concept of the *Global Index* in *Chapter 4. GI* is a reality check for companies to see how poised they are for winning in the global economy and how much further they have to go. To win in the global economy on a sustained basis, having good products and services is not enough. One must also have a high GI, or Global Index. Identified by four primary and four causal factors, a firm can very well ascertain its current as well as target position for success. These factors have been around for a long time, but companies haven't treated them within a global context, which is quite different from competitiveness at the local level. So when we pick up revenue (markets) as a primary factor, we recommend measuring the dispersion across regions and markets over and above the sheer volume number. Processes have to be common, yet suited to global variations if the firm has to act, survive and prosper in global arena. Each

of the four primary factors—revenue (Markets), processes, innovation and leadership as well as the four causal factors—human capital, metrics, localization and objectives, help define the current state and future to-be yardstick for progress. In fact, these factors present a balanced measure for global effectiveness. Companies can examine and implement specific strategies to expand their current footprint and achieve an optimal global competitiveness positioning.

The toughest part of any change journey is to define "how to get there."

To get there, we need to define the strategies to fill the gap and stay on course. Within the global journey, there are many naysayers who are more comfortable with the status quo and who are less than supportive of global expansions and the associated global sourcing and global revenue balancing. Achieving global competitiveness is hard and often requires sacrifices and job displacements if the companies had not adopted progressive steps earlier. The role of the senior management is to overcome these objections and ensure the company achieves what it needs to.

Chapter 5 is the watershed chapter, which is at the core of our prescription in the form of *Global Value Webs*. Globalization requires us to reinvent everything and we can do if we understand the principles of Global Value Webs. Our thesis is not company or country specific, but is designed to respond to competitiveness and winning at a global level. Companies need to leverage technologies, resources, expertise, capabilities, suppliers and buyers everywhere if they want to play this game. It is about composing your products and services from the global pool and then customizing them for individual markets. We examined various prescriptions and strategies for nations and introduced the concept of Value Mosaics to encourage companies to innovate at the value web level. This is precisely due to the fact that the basis of competition is progressively moving along the competitive dimensions of:

- Cost based competition
- Value based competition
- Competence based competition
- And finally, Global Index based competition

No company can remain static in their business approach and survive over the long-term. We have, therefore, outlined the principles of value creation across each of the global operating models so that a company, large or small, can create value mosaics and continuously innovate and refine their value propositions to prosper and grow. The winning formula requires achieving a high GI through innovative products coupled with services at a fair price point, something that is in sharp contrast to the mass-produced service-stripped products companies are by and large offering today.

In *Chapter 6*, our perspective changes on the enabling factors that can help you to win. As in a game, a quality follow-through is one of the most important elements of proper execution. All these high decibel theories would need nurturing and nourishment for execution, and this can be done by examining and adopting *Technologies for the Global Age* as discussed in *Chapter 6*. Technology is the guiding rail on which the global economy is moving. This chapter brings our attention to the promise and opportunities that ITEC innovations provide. While these could initially be disruptive, their proper leverage is like maneuvering a sailboat and getting the wind on its tail so that you can have swift smooth sail onward.

Leveraging technology effectively can make the global journey much easier. Simply put, with global interlinking of powerful computers and advancement in telecommunications, not only are we able to interconnect all of humanity, but we are also able to harness the power of computer processing that provides many a factor attenuation of human capability. Companies can leverage talent pools globally by tying them together through IT and enabling them to do collaborative work round-the-clock resulting in significantly reduced cycle times for new products at much lower costs. What we need to do is to figure out how to best leverage technology within the business ecosystem so that all the piece parts from various companies and people across continents come together and operate in harmony creating goods and services that can delight customers worldwide.

Chapter 7 discusses *Strategic Sourcing and Partnering*, which is increasingly being exploited by companies so that they can focus their efforts on core value addition while sourcing support processes from focused service providers. Reams of literature have been written about sourcing and partnering, and without repeating the established thoughts we have espoused its virtues and recommended a comprehensive sourcing strategy consisting of all of the following elements:

- Source activity from the best place to leverage expertise, capability, quality and time elements at the best overall cost.
- Ensure protection of intellectual property, core competencies and legislated technologies.
- Balance partnering versus vendor sourcing.
- Be sensitive to geo-political situations.
- Ensure integration across islands of sourcing.

- Ensure redundancy that permits shifting of work dynamically.
- Enable a value migration to future products and services.

While technology leverage and sourcing provide two major levers for a company, they are not by themselves sufficient to provide sustainable advantage. Companies must maintain a flexible posture and have the ability to move rapidly into new value streams and markets. This can be achieved through the additional lever of *Dynamic Value Integration* that we treat in detail in *Chapter 8*. Any organization, big or small, which wants to create a global enterprise, must do so with what we call the preamble strategy i.e. Global Value Webs. The core firm should have the ability to dynamically link capabilities of its value web participants allowing it the flexibility to find the best provider of value at any particular point in time. We detailed out strategies for enhancing the GI in each of the Global Operating Models. The organization can now use technology to link and tap the entire value ecosystem. Easy?

No, not quite!

Organizations comprise people and just by talking to them through a broadcast mail things will not fall in place, especially when you are dealing with multi-country operations. *Chapter 9* covers one of the disciplining actions that brings rigor to our behavior. Titled *Structuring for Global Success*, this is a must-re-read for the CXO community on whom the mantle of delivery falls. After all, they are the ones responsible for making things happen, based on the Chairman's articulation of Vision 2020. In this chapter, we define the principles for structuring for process excellence, which includes:

- Consistency of processes which promote the corporate brand and image.
- Correct centralization and decentralization of processes, operations and decisions so that there is a consistent structure across the company while ensuring customer alignment and responsiveness.
- Ability to harness the power of the corporation that links together and leverages all the core capabilities, competencies and expertise in the most efficient manner.
- Promotes overall economies-of-scale and scope leverage to provide low cost for producing goods and services while leveraging core competencies and expertise across its business units and geographies.

We ended up recommending how it can be done, giving tables, charts and slider bars frame work, for you to adopt, adapt and perfect in your situation. What are you waiting for now!

No discussion will ever be complete without touching leadership. Many successful leaders of very large global companies such as IBM and Tata often challenged their leadership to think above and beyond the current year or the current strategic planning cycle. In fact, several of their leaders have asked their employee and business managers to think about what the company can be in 100 years. Based on this premise, they have hired people for the long-term and made investments that will drive sustained growth over long periods of time. Of course, nothing is a guarantee for so long since one cannot comprehend or predict major global shifts that may occur. Some of these shifts have been outlined in the earlier chapters of this book in terms of human capital, education, capital and technology, which have fundamentally shifted the global economic factors.

In a way, the longevity of an enterprise is highly linked to the quality of its people and how they are trained and nurtured for tomorrow. We did exactly the same in *Chapter 10*, titled *Leadership in a Multi-Polar World*. The strains of globalization are showing in the leadership quadrant, and without much debate all of us accept that we do not really know or have global leaders. This chapter highlights those silent traits that are needed in the leadership team for a global enterprise. Leadership for globally successful organizations consists of not one, but two major components leadership in thought and leadership in personnel. Enunciated through a unique honeycomb structure, all these leadership factors are a must have. Measure your leaders and see if they are up to it! If not, you need to take aggressive corrective actions to have the right leadership group you need in a global economy.

Managing and winning in a global economy requires investments and constant attention to detail. Continual tracking of success factors and measures, and taking action quickly are key to winning in the global economy. This is treated in detail in *Chapter 11*, titled *Global Management System*. Strategies and initiatives are not enough to ensure success unless a comprehensive management system is in place, which provides all the checks and balances and allows quick identification of corrective actions when required. Hand in hand with the management system are business or performance metrics that need to be measured and managed. For effective global success, companies need to manage two major components—Global Metrics, which ensures alignment with the Global Management System, which in turn, consists of four major components:

- Vision
- Value drivers

- Tactical initiatives
- Measurements and evaluation

Once in place these management systems will need Global Metrics eight to be precise covering revenue, human capital, processes, metrics, localization, leadership and objectives. In fact, the time is just right to take the bold steps to provide a winning solution.

Chapter 12, titled *Disadvantages of Globalization*, is unique for its sobering thoughts as also for its warnings on the consequences of reckless globalization. In this chapter, we brought out some of the disadvantages of globalization due to rapid profit-making exploitation, leading to negative impact in areas such as:

- Reduction in variety
- Irresponsible exploitation of natural resources
- Loss of arts
- Loss of language and human knowledge

We recommend that while we celebrate the positives of globalization, we must also encourage governments and industries to play a vital role in preventing or minimizing this destructive exploitation of resources. We must move quickly to protect our rapidly disappearing art forms, languages and knowledge through support from the government, large corporations and high net worth individuals to promote world heritage, arts and culture as part of a give back tradition. Leaders responsible for economic expansion should do so responsibly while protecting the valuable treasures bestowed on us through the centuries of human learning.

And finally, you have read this *Chapter 13*, which sums it all up for you.

So in the interest of time, we would not stand between you and your action.

Just go out, take action with all our good wishes!

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