All India Management Association

Excellence in Management

INDIA'S NEW OPPORTUNITY – 2020

– 40 Million New Jobs
– $200 Billion Annual Revenue

REPORT OF THE
HIGH LEVEL STRATEGIC GROUP

E-learning – Home-schooling • Professional courses

Tourism – Medical services • Leisure/Adventure tourism

IT enabled services – Process outsourcing • Engineering services

IT services – IT consulting • Application development

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CII

Confederation of Indian Industry

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Contents

Preface

In an increasingly inter-dependent world, all countries will vigorously pursue policies to optimise comparative factor endowments. The rapid technological changes, while making transactions more seamless, will reinforce the process of global integration. It has been said that the battles of this century will be fought and won on the "power of ideas." Societies will increasingly become knowledge-based and promote knowledge-based industries.

India has a distinct comparative factor advantage as a vast reservoir of skilled manpower. The demographic differentials reveal that over the next 20-30 years, India has distinct advantages in a population profile concentrated in the younger age group, where many new opportunities can be fully optimised.

What are the policies that would enable India to optimise these emerging opportunities and what should we as a nation do in concert so that we turn out to be winners and not losers?

With the objective of answering these questions, the All India Management Association (AIMA) had set up a High Level Strategic Group comprising leaders from industry, academia, and the government. The results of the deliberations of the group, involving in-depth interaction with wide segments of society and decision makers, are contained in this report. A task force comprising AIMA, the Confederation of Indian Industry, and The Boston Consulting Group has been constituted to implement the Action Program that has emerged. I have no doubt that all the stakeholders, including the government, the corporate sector, and academia, will contribute in the implementation of the recommendations contained in the report. This will enable India to enhance its growth, secure additional employment, and maximise the emerging opportunities.

(N. K. Singh)
Member
Planning Commission
Chairman, High Level Strategic Group

Executive Summary

The steam engine (and its successor, the internal combustion engine) heralded the industrial revolution that led to economic growth in the West. These engines required fuel - coal and petroleum. As the industrialised countries exhausted their own sources of supply they turned increasingly to other sources, which resulted in the economic growth of the supplying countries, such as the oil producing countries of the Middle East. This pattern is unfolding again. The growth paradigm of Western economies requires another kind of fuel – knowledge workers and skilled professionals. For example, U.S. growth rates of the 1990s are primarily attributed to productivity increases enabled by a highly skilled workforce. In the next two decades developed countries will face a shortfall of fuel (skilled professionals) and once again will have to look towards developing countries to make up the shortfall.

For India, growth is an imperative. To be counted as a major economic powerhouse by the end of this century's first quarter, India needs to accelerate its economic growth beyond the existing rates of 5-6% per annum. Then only can its citizens, more than a quarter of whom (~28%) live below the poverty line today, afford better lifestyles. In addition, at current growth rates India is projected to have a significant unemployed population (estimates range between 19 and 37 million unemployed by 2012), the largest share of which will be educated youth. The unemployment and poverty resulting from inadequate growth will retard other efforts to place India amongst the top global economic powers. Therefore, the acceleration of economic growth and the employment of skilled youth in the next two decades are key concerns for India Inc.

Perhaps, we have for too long looked to others for models of growth. We have marvelled at the tigers and the dragon and wondered what we could do to copy their success. But that is denying us our unique place in the world. Perhaps if we start with our own strengths, we can find an opportunity in our uniquely large and skilled workforce – an opportunity that distinguishes our model of growth and that is opening up for India as a result of global developments this report analyses.

While India faces an unemployment crisis, ironically, many countries are projected to face workforce shortages in the same period due to lower birth rates and an increase in the proportion of the elderly in their population. While skilled workforce requirements are increasing in line with economic growth, availability is not keeping pace, as a result of fewer people entering the workforce and the trend towards early retirement. Select professions are already witnessing a shortfall (IT services, medical, education). The workforce shortages (mostly in skilled categories)

can slow down economic growth in these countries and have other adverse socio-economic implications. Adjusting for initiatives taken by governments to manage this crisis, the High Level Strategic Group (HLSG) estimates a net workforce shortfall of 32-39 million by 2020 in the developed countries of today.

This challenge faced by some countries presents a great opportunity for some developing countries, such as India. India can target this shortage by providing remote services to these countries and also by importing customers and servicing their needs in India. The contribution of remote services alone, which is the main focus of this report, will be $133-315 billion of additional revenue flowing into the country and the addition of 10-24 million jobs (direct and indirect) by 2020. Further, importing customers into India (medical tourism, educational services, leisure tourism) could add $6-50 billion in revenue and create 10-48 million jobs (direct and indirect) by 2020. HLSG estimates that through remote services and the importation of customers India could enhance year-to-year GDP growth by up to 1.5% over current growth rates, most of which (~80-85%) would be through remote services.

India is positioned well against these opportunities given its large pool of qualified manpower, track record in service delivery in sectors like IT, and lower costs (specifically in areas such as medical treatment and education services). However, in order to convert these opportunities into actual revenues, India Inc. will have to take several initiatives.

HLSG has identified six thrust areas for action to boost demand for India's services:

- ❏ Strengthen India Inc. image/brand
- ❏ Focus marketing on select countries with select services
- ❏ Build customer credibility
- ❏ Promote acceptability of the 'offshore' concept
- ❏ Improve service experience for customers
- ❏ Invest in promoting trials

HLSG has also identified six thrust areas for action to boost supply of India's services:

- ❏ Develop domain expertise in specific areas
- ❏ Reform education and training sector to increase base of skilled professionals
- ❏ Strengthen connectivity infrastructure (telecom, IT, airports)
- ❏ Promote public-private partnerships
- ❏ Form interest groups around opportunities
- ❏ Align legal and regulatory structure

Why is this report different?

Over the last few years, many reports have been written on how to lead India onto the path of accelerated development. While most reports correctly identify opportunities and build a coherent roadmap, they often do not result in effective implementation and hence opportunities are not realized. We would like our report to stimulate actions towards the goal. Therefore, we have analysed why reports fail to engage the implementers, and we have used this understanding to shape our report. We have found that reports that fail to have much impact fall into two categories:

1. The first category involves a lot of analysis and lays down detailed sets of instructions for those who have to implement whatever ideas are in the report. The focus of the process is to **first complete the report**. Once completed, such reports often end up on the shelf. The biggest shortcoming in such cases is that the people who have to implement the instructions do not fully comprehend what needs to be done and/or do not take ownership of the task, as they are not involved in its development
2. The second category starts by analysing the situation and outlining broad themes. However, the follow-up process is not documented well and is largely unstructured. The driving principle in this case is to **provide an idea and hope that it will work**. Here again, the report hits the shelf and gathers dust.

This report takes a different approach. The approach adopted here rests on two simple principles, which have been found to be highly effective in situations involving disparate interest groups:

1. Create an appreciation of the opportunities that exist and prioritise areas for action
2. Align processes and participants (implementation partners) towards a common goal

In addition to identifying areas where action needs to be taken, this report provides a structured framework for key stakeholders to participate in the assimilation of ideas and development of their implementation plans. The report is the first in a series of steps necessary to fulfill the overall goal. In the next step, appropriate agencies will develop implementation plans for the critical areas identified. These agencies may be inter-departmental task forces for the key areas, or joint industry-government task forces, or business organisations that pilot and implement projects to realize the benefits of the opportunities analysed in this report.

Introduction

The idea of providing professional services to the developed world remotely from India is not new. However, little analysis has been done so far on the exact nature of this opportunity and the action steps required to exploit it. The All India Management Association (AIMA) set up a High Level Strategic Group (HLSG) to examine these issues. The HLSG comprised leaders from industry, academia, and the government. The objective of the HLSG was to:

❏ Identify the opportunities available to Indian companies
❏ Highlight the need for policy makers to act quickly in view of the urgent job-creation requirements
❏ Develop a process that creates alignment between the various stakeholders and the common goal

A key consideration for the HLSG during the development of this report was its ability to bring about real change. To this end, the HLSG invested significant time in understanding the reasons why India, despite having sufficient knowledge of what needs to be done, often fails to 'make it happen.' The collective experience of the HLSG members suggested that <u>the inability to make things happen faster, with alignment</u>, is the main reason why India misses opportunities. On further study, it was felt that the lack of speed was generally a result of an implementation model that enforces compliance rather than obtaining commitment (Exhibit 1). The power of commitment amongst stakeholders to relentlessly obtain the desired outcome cannot be underestimated. Unfortunately, most approaches to implement change are designed to obtain compliance rather than commitment. As a result, the energy in the process peters out. To obtain commitment from all stakeholders, the HLSG embarked on a path that architects and guides the process of involvement and action using the report as a stimulus.

The chosen approach was based on the analysis of several initiatives, some of them national in scope, and some within corporations. In almost all cases, the members reached a similar conclusion – the quality of process has a far greater impact on the outcome than the amount of detail (recommendations) in the report. Therefore, the HLSG adopted an approach that entailed the structured involvement of all concerned stakeholders as opposed to those approaches adopted in the past that have not been found to be effective (Exhibit 2).

Exhibit 1

SUCCESSFUL IMPLEMENTATION MODEL – MOVING FROM COMPLIANCE TO COMMITMENT

Compliance (vertical axis label)

Commitment
"Wow! Where do we start? Who else do I know who can help us?"

Genuine Compliance
"What a great idea! What can I do to help?"

Formal Compliance
"It's expected – of course I'll do it"

Grudging Compliance
"I wouldn't want to lose my job, now would I?"

Non-Compliance
"Right. Ask me about it again next month."

Malicious Compliance
"You want compliance? Fine. I'll follow every single little detail in the rule book faithfully. Let's just see where that gets you!"

Exhibit 2

DIFFERENT APPROACHES TO CONVERT IDEAS INTO ACTION

	Approach			Driving principle	Outcome
1	Analysis	Report with action steps	"Instructions" to implementers	"Complete report first"	In most cases, little happens, opportunity lost, report on shelves
2	Analysis	Report with broad themes	Unstructured follow-on	"An idea and hope for the best"	In most cases, little happens, opportunity lost, report on shelves
3	Analysis	Report with action areas	Structured involvement of actors	"Managed, participative process, facilitated by reports"	Ideas are converted to action by implementers

HLSG is following the third approach

We would like to highlight that this report is the first step in a guided process of developing focused and aligned actions. The report should form the basis for the second step, which is developing a structured process to align the various stakeholders and actors. This process should be characterised by dialogue and analysis within and between the various groups, and should lead to self-developed action plans. Thereafter, it is desirable to have an agency or process to periodically review and coordinate actions because the plans and actions of the various groups in their respective areas can reinforce each other (Exhibit 3).

Exhibit 3

PLANNED APPROACH – FROM "REPORT" TO IMPLEMENTATION

"REPORT"

- Opportunity
- Areas for action
- Nature of action
- Process for engaging actors and obtaining alignment

GUIDED PROCESS FOR ALIGNMENT AND DETAILED ACTIONS

- Task forces for critical areas
- Dialogue and analysis triggered by report
- Integration process

IMPLEMENTATION

- All agencies concerned
- Monitoring and co-ordination process

HLSG role   **Hand over to appropriate agency**

An analysis of several policy-change programs undertaken by the government suggests three catalysts for implementation:

❏ Strong support from influential people who drive the agenda and clear away roadblocks (e.g. PMO/FM, respected bureaucrats)
❏ Dynamic leadership from bureaucrats who take ownership to carry the process to conclusion
❏ Continuous external pressure on the government for action as well as advice on the way forward from industry associations and companies

On the other hand are several factors that deter successful implementation. These are:

❏ Lack of alignment within government (politicians and bureaucrats) on core guiding principles for action
❏ Lack of involvement of all concerned ministries at planning stage
❏ Lack of agreement on implementation plan - leading to coordination problems across various entities
❏ Lack of continuity and accountability of key bureaucrats
❏ Lack of systematic involvement/push from companies and industry associations
❏ Mismatch between the requisite skills for the job and allocation of responsibility
❏ Requirements for significant funding from the government

The results of the deliberations of the HLSG, supplemented by contributions from many others, are contained in this report. The report describes:

❏ Growth imperatives for India
❏ Nature and size of opportunity from remote servicing and importing customers
❏ Potential areas for action
❏ Industry-specific action steps for central and state governments and Indian companies
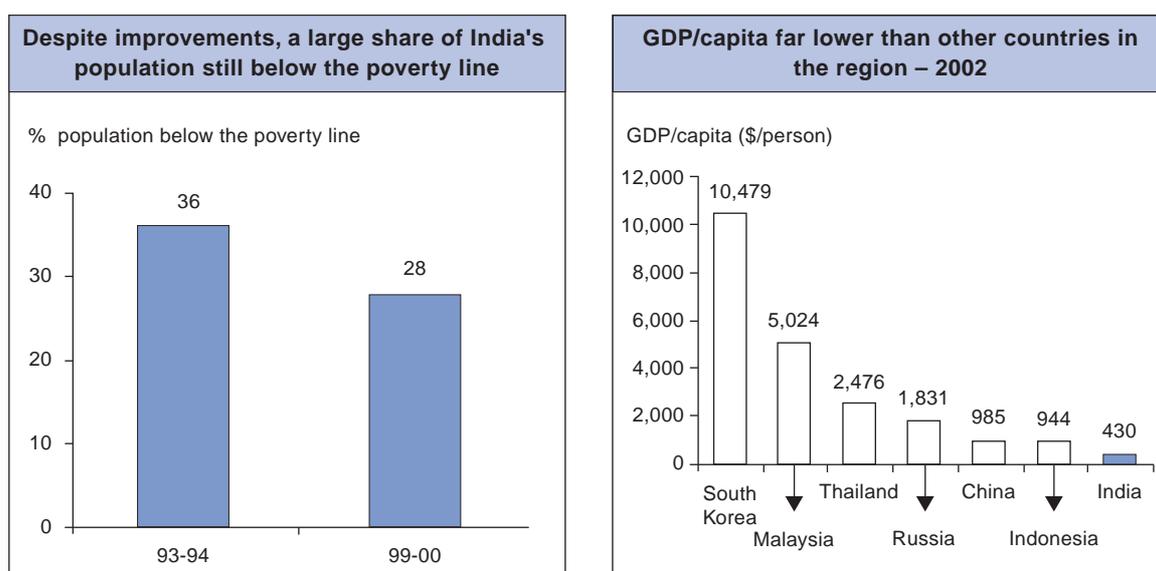
A task force comprising AIMA, the Confederation of Indian Industry (CII), and The Boston Consulting Group (BCG) has been constituted to orchestrate the engagement of 'India Inc.' – officials from central and state governments and business leaders – to work together and realize the opportunities for India that the HLSG has analysed.

chapter one

The Growth Imperative

The Indian economy gained fresh momentum with the liberalisation ushered in by the government in 1991. The average GDP growth rate climbed to nearly 6% during the 1990s, compared to a tepid 4% for the first 40 years since independence. However, despite the gains made post-liberalisation, India still has a long way to go. More than a quarter of its population still lives below the poverty line. Its GDP per capita (non-PPP adjusted) fares poorly against other nations with comparable backgrounds (Exhibit 4).

Exhibit 4

POVERTY AND GDP PER CAPITA IN INDIA

Despite improvements, a large share of India's population still below the poverty line	GDP/capita far lower than other countries in the region – 2002

% population below the poverty line

Year	%
93-94	36
99-00	28

GDP/capita ($/person)

Country	GDP/capita
South Korea	10,479
Malaysia	5,024
Thailand	2,476
Russia	1,831
China	985
Indonesia	944
India	430

Source: National Sample Survey; World Economic indicators – IMF; BCG analysis

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The spurt in the years immediately following liberalisation appears to have slackened and GDP growth is reaching a plateau at 5-6%. The current developmental problem facing India is exacerbated by the changing demographic profile of the country. At current rates, anywhere between 19 and 37 million people will be unemployed by 2012, the largest chunk of which will be amongst the educated youth. Therefore, the need for strong, accelerated economic growth is now more acute than ever.

The solution to accelerating India's economic growth should keep in mind the current realities of the Indian economy. In view of the limited investment ability

of the government, low Foreign Direct Investment (FDI) and relatively low level of exports compared to the size of the economy, a solution that leverages the wide availability of human capital, rather than the limited financial capital, is more likely to succeed (Exhibit 5).

Exhibit 5

CHALLENGES AND OBJECTIVES OF GROWTH PLAN

Traditional options to stimulate growth may not be feasible/sustainable

Pump priming
- Limited ability for further investments
  - Indian central and state governments combined fiscal deficit ~10% of GDP (~$50 billion) in 2001-02

Foreign Direct Investment (FDI)
- India attracts a very small share
  - India - $4 billion vs. China - ~$40 billion

Exports
- Only ~14% of GDP
- Limited success in manufactured goods and commodities

Economic growth should address the problem of unemployment...particularly of skilled youth

# of unemployed people in India (Mn)

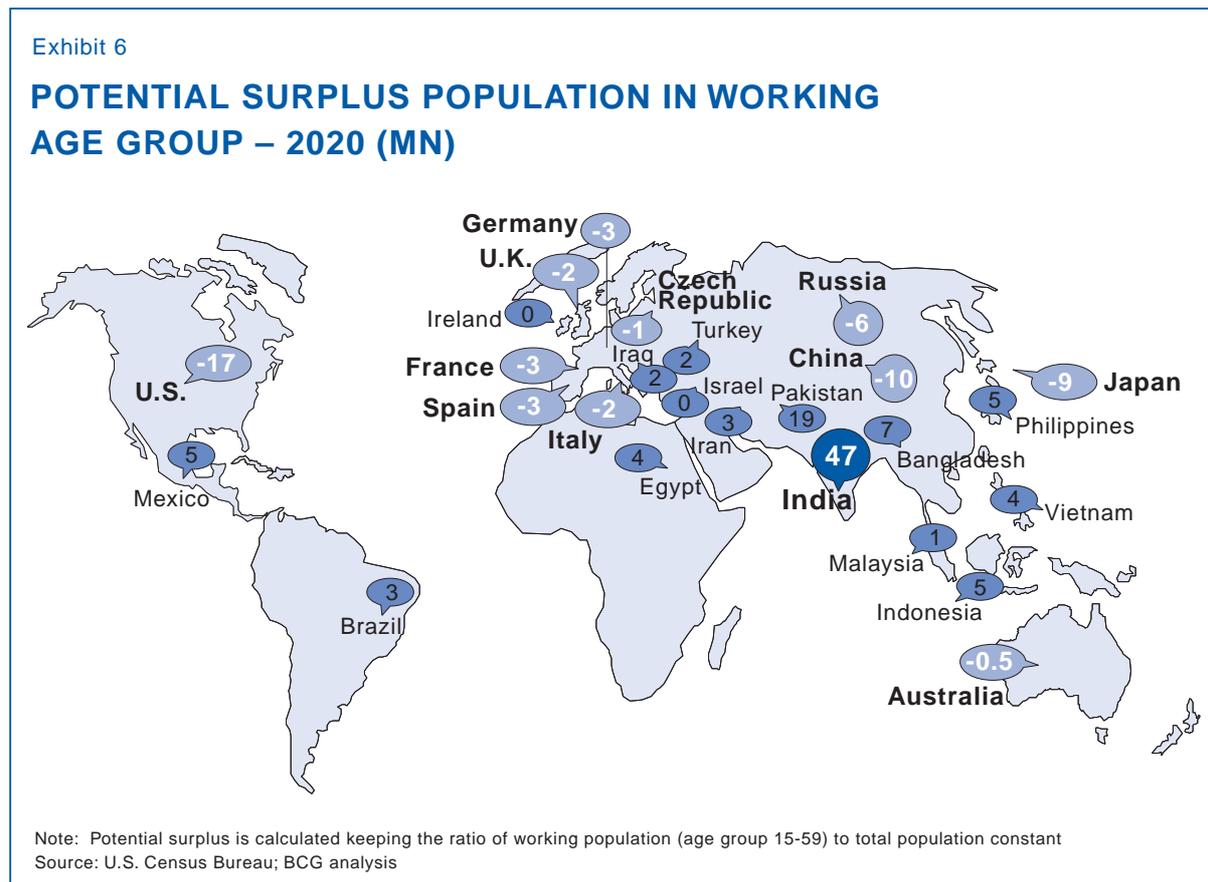Largest share of unemployed are youth with secondary/college education

Note: Range of unemployment estimates due to differences in assumptions for growth in labour force; usual principal and subsidiary measure of unemployment is used
Source: Statistical Outline of India; Report of the task force for employment opportunities (Planning Commission, July 2001); CMIE; IMF; BCG analysis

In the next chapter we describe opportunity areas that could provide solutions to India's developmental challenge.

The Opportunity

While India struggles with a burgeoning population of educated youth, the rest of the world, especially developed countries, faces a shortage of working-age people, caused largely by lower birth rates and an ageing working population. While the requirement for skilled workers in these markets is increasing in line with economic growth, the availability of skilled people simply isn't keeping pace. In professions like IT services, medicine, and education, the problems are already beginning to be felt.

Exhibit 6 provides a snapshot of the potential labour shortages and avenues of supply in 2020. In addition to developed countries, even developing countries such as China and Russia will have a workforce shortage.

Exhibit 6

POTENTIAL SURPLUS POPULATION IN WORKING AGE GROUP – 2020 (MN)

Note: Potential surplus is calculated keeping the ratio of working population (age group 15-59) to total population constant
Source: U.S. Census Bureau; BCG analysis

For the developed world, these shortages present a huge challenge, as they can slow down economic growth. And they can have other adverse effects. For instance,

❏ Demand-supply imbalances caused by workforce shortages will increase wage rates, reducing the competitiveness of these countries

❑ Pressure on the existing social security and pension systems will increase as a significantly larger percentage of retired population has to be supported by a smaller percentage of working population

Some countries already recognize the shortage of workers as a potential problem (Exhibit 7).

Exhibit 7

RECOGNITION OF WORKFORCE-SHORTAGE PROBLEM

"...spurred by the retirement of more than 61 million workers in the next 30 years, workforce will be short of almost 5 million workers by 2011 and almost 36 million workers by 2031..."

- Ed Potter, President, US Employment Policy Foundation
The American Workplace Report 2001: Building America's Workforce for the 21st Century

"Germany would have to bring in 1.2 million immigrants annually if Europe's biggest economy and world's third largest economy hopes to avoid a crippling long-term labour shortage due to the ageing of its own work force."

- German Institute of Economic Research, 2001

"By 2003 the U.K. will lack 300,000 skilled IT workers, causing a significant cost to businesses' productivity. This skills gap is forcing up the average salary of a skilled IT Manager to over £70,000 - a cost that many small and medium-sized businesses struggle to justify"

- European commission research, 2000

"...ageing of society is the biggest problem facing Japan.....Japan would need 600,000 immigrants a year to make up for the shortfall in its workforce later this decade"

- The Guardian, U.K., Aug 2, 2001

Source: Literature search

Several of these governments have initiated measures to manage the crisis and minimise its impact. However, these measures will only reduce workforce shortages, not eliminate them. Also, the outcome of several of these measures is still uncertain (Exhibit 8).

Even after adjusting for government actions, we estimate that the net workforce shortage in developed countries will range between 32 and 39 million by 2020. Amongst such nations, the U.S., Japan, Spain, Canada, and the U.K. are expected to face the largest shortages (Exhibit 9).

Exhibit 8

PROPOSED ACTIONS BY DEVELOPED COUNTRIES

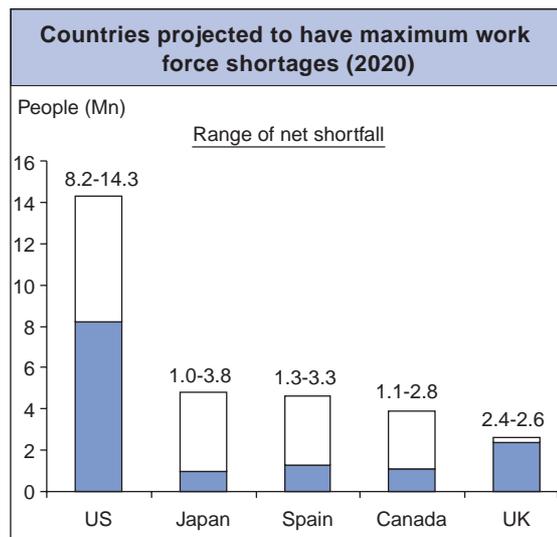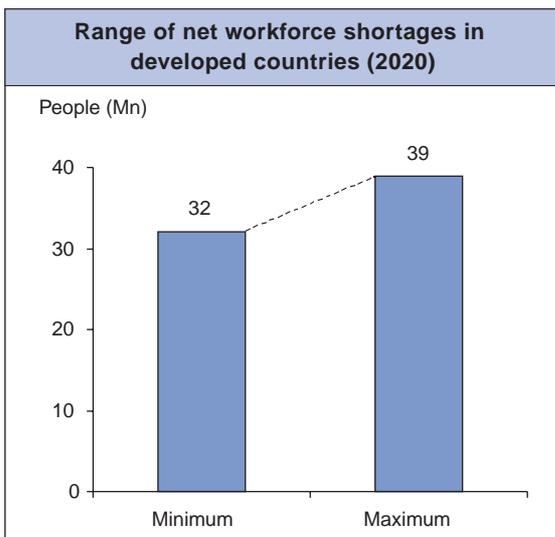| Several actions being talked about by developed countries...	...however, effectiveness of these measures yet unclear
Encourage people to retire later	Study by the UN for Germany concluded that steps to manage workforce shortages through increase in retirement age would be "unrealistic and unpopular"
Increase incentives to women to join the workforce	Due to increasing affluence levels, rate of growth of women in the workforce declining. In the U.S., the growth in the last 3 years was only 0.13% p.a.
Increase rate of immigration into the country	Increase in immigration over historical rates already modelled in future population composition. Dramatic shifts in policy unlikely due to social tensions expected from such moves and tighter immigration policies due to the impact of terrorist events like 11 September 2001
Increase productivity through levels of automation	Only 13.5%[1] of all service jobs are amenable to automation. Additionally, automation also tends to generate employment when efficiency gains are reinvested for growth

(1) "Digital Automation and the New Workforce", The Progressive Policy Institute, April 2000
Source: Literature search; BCG analysis

Exhibit 9

WORKFORCE SHORTAGES IN DEVELOPED COUNTRIES

Range of net workforce shortages in developed countries (2020)

People (Mn)

Countries projected to have maximum work force shortages (2020)

People (Mn)

Range of net shortfall

	US	Japan	Spain	Canada	UK
Range of net shortfall	8.2-14.3	1.0-3.8	1.3-3.3	1.1-2.8	2.4-2.6

Ranges vary based on demand for labour (driven by economic growth) and actions taken by countries to manage shortfall (automation, increase in participation rates, etc.)

Source: United Nations; US Census Bureau; OECD; BCG analysis

The challenge faced by other nations presents an opportunity for India. With its large population of educated youth, India can provide a host of services to such countries. These services fall into two broad categories:

1. Professional services to the world provided remotely from India – IT services, IT enabled services, telemedicine, e-learning, etc.
2. Customers serviced in India (import of customers) – special service tourism (health care, education services), leisure tourism, etc.

The potential revenue from these two opportunities is huge. By 2020, India Inc. can hope to generate $139-365 billion of additional revenue from these opportunities, pushing the GDP growth rate by an additional 0.6-1.5% between 2002-20 (Exhibit 10). The resultant employment generation (direct and indirect) can be in the range of 20-72 million by 2020 (Exhibit 11). We will explain in later chapters the uncertainties that result in a range of outcomes and also actions within our control to realize the highest possible outcomes.
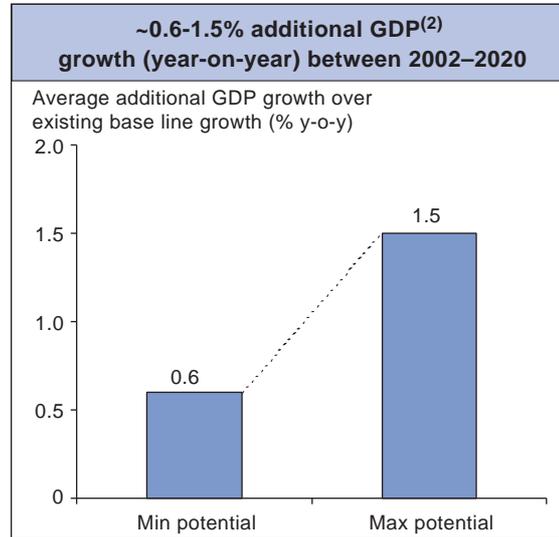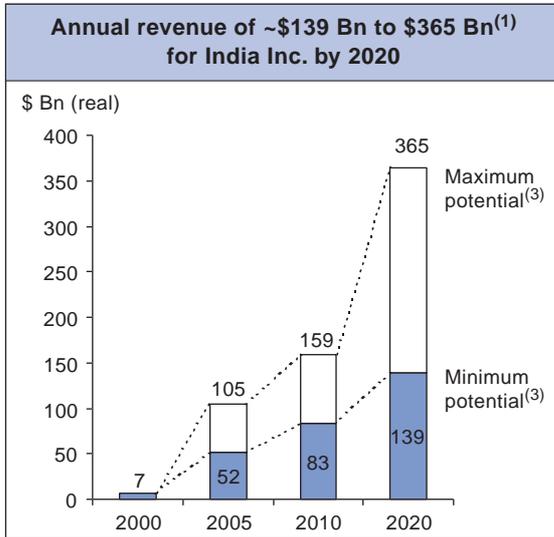
Remote services alone can contribute $133-315 billion in revenues to the Indian economy by 2020. The resultant employment creation (direct and indirect) will be in the range of 10-24 million jobs by 2020. Starting with simple services, such as call centers targeted at corporate clients, Indian providers can evolve to providing more complex services to corporations and also targeting individuals as potential customers (Exhibit 12).

The second opportunity, importing customers into India, has the potential of generating $6-50 billion of revenues and creating between 10 and 48 million jobs (direct and indirect) by 2020. Purely from an economic perspective, the fundamentals for this business are strongly in India's favour. The cost of medical treatment and educational services in India is a fraction of the cost in developed countries (Exhibit 13). Several Indian health care providers are already tapping into this opportunity by serving customers from the Middle East. Exhibit 13 illustrates a list of medical services that can be offered to foreign customers. In the area of leisure tourism, India currently has an insignificant share of global tourist arrivals. Clearly, there is large, untapped potential in this area waiting to be harnessed by India Inc.

The categories of services that can be provided by India Inc., by remote servicing and importing customers into India, are listed in Exhibit 14. India's potential strength of human capital can give it a competitive advantage in these service areas. Not only does India have the largest pool of manpower, it also has the highest quality of people according to international agencies (Exhibit 15).
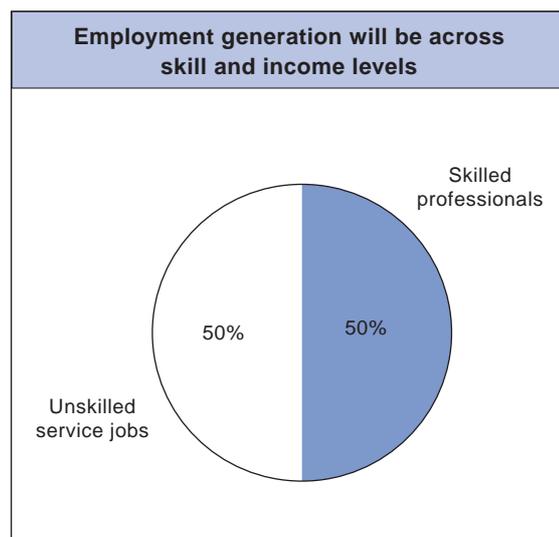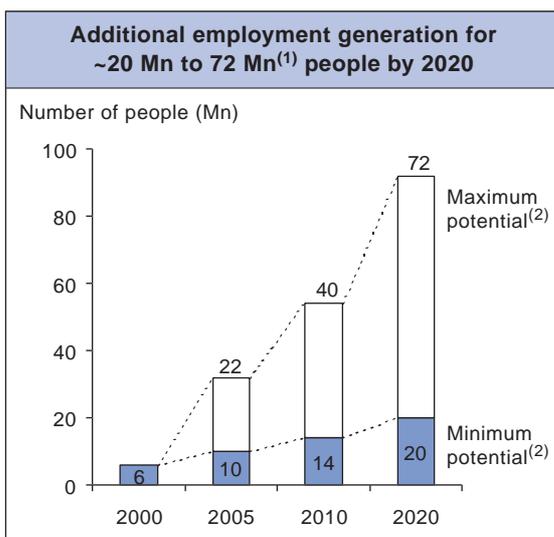
IDENTIFIED OPPORTUNITIES – REVENUE AND IMPACT ON GDP GROWTH

Annual revenue of ~$139 Bn to $365 Bn[1] for India Inc. by 2020

$ Bn (real)

Maximum potential[3]

Minimum potential[3]

Year	2000	2005	2010	2020
Total	7	105	159	365
Minimum		52	83	139

~0.6-1.5% additional GDP[2] growth (year-on-year) between 2002–2020

Average additional GDP growth over existing base line growth (% y-o-y)

	Min potential	Max potential
	0.6	1.5

(1) 87% from remote services, 13% revenues from special services and leisure tourism in the optimistic scenario
(2) Base line GDP growth till 2020 assumed as 5.5% (average growth between 1990-2000)
(3) Range based on potential scenarios of world in 2020 and action taken by India to capture the opportunity – discussed subsequently
Note: Estimates do not include potential shortages in China, Russia, Mexico and smaller developing countries. These countries will be sources of supply
Source: NASSCOM; CII; WTTC; CMIE; Literature search; BCG analysis

IDENTIFIED OPPORTUNITIES – EMPLOYMENT GENERATION

Additional employment generation for ~20 Mn to 72 Mn[1] people by 2020

Number of people (Mn)

Maximum potential[2]

Minimum potential[2]

Year	2000	2005	2010	2020
Total	6	22	40	72
Minimum		10	14	20

Employment generation will be across skill and income levels

Skilled professionals 50%

Unskilled service jobs 50%

(1) 67% jobs from special services and leisure tourism, 33% from remote services in the optimistic scenario
(2) Range based on potential scenarios of world in 2020 and action taken by India to capture the opportunity – discussed subsequently
Note: Estimates do not include potential shortages in China, Russia, Mexico and smaller developing countries. These countries will be sources of supply
Source: NASSCOM; CMIE; WTTC; Literature search; BCG analysis

Exhibit 12

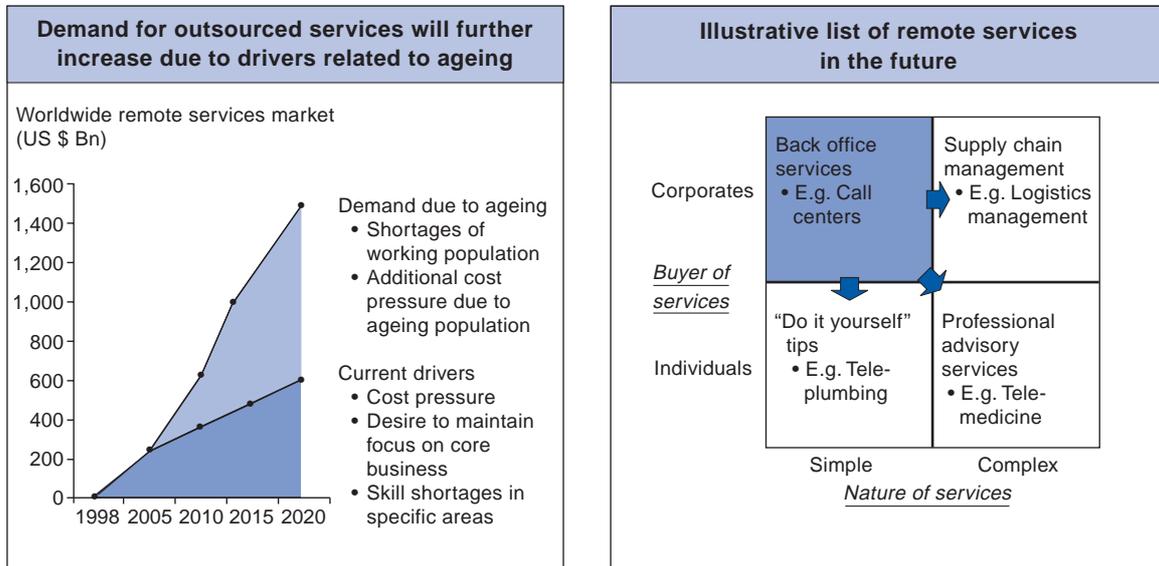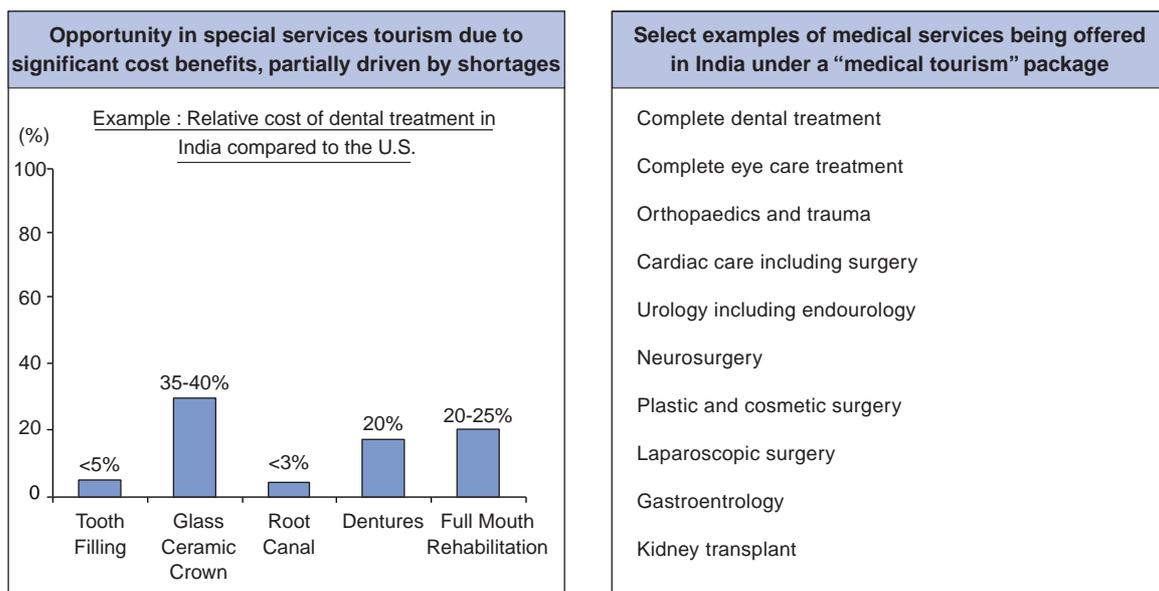# WORLDWIDE DEMAND FOR AND ILLUSTRATIVE LIST OF REMOTE SERVICES

Demand for outsourced services will further increase due to drivers related to ageing

Worldwide remote services market
(US $ Bn)

Demand due to ageing
- Shortages of working population
- Additional cost pressure due to ageing population

Current drivers
- Cost pressure
- Desire to maintain focus on core business
- Skill shortages in specific areas

(Graph with y-axis values: 0, 200, 400, 600, 800, 1,000, 1,200, 1,400, 1,600; x-axis values: 1998, 2005, 2010, 2015, 2020)

Illustrative list of remote services in the future

Buyer of services	Simple	Complex
Corporates	Back office services • E.g. Call centers	Supply chain management • E.g. Logistics management
Individuals	"Do it yourself" tips • E.g. Tele-plumbing	Professional advisory services • E.g. Tele-medicine

Nature of services

Note: Actual size of market could vary under different scenarios; average numbers used here for simplicity
Source: IDC; NASSCOM; U.S. Census Bureau; BCG estimates; BCG analysis

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Exhibit 13

COST ADVANTAGE AND ILLUSTRATIVE LIST OF MEDICAL SERVICES

Opportunity in special services tourism due to significant cost benefits, partially driven by shortages

Example : Relative cost of dental treatment in India compared to the U.S.

(%)

(Bar chart with y-axis: 0, 20, 40, 60, 80, 100)
- Tooth Filling: <5%
- Glass Ceramic Crown: 35-40%
- Root Canal: <3%
- Dentures: 20%
- Full Mouth Rehabilitation: 20-25%

Select examples of medical services being offered in India under a "medical tourism" package

Complete dental treatment

Complete eye care treatment

Orthopaedics and trauma

Cardiac care including surgery

Urology including endourology

Neurosurgery

Plastic and cosmetic surgery

Laparoscopic surgery

Gastroentrology

Kidney transplant

Source: The Times of India; Literature search

Exhibit 14

SERVICES TO BE OFFERED BY INDIA INC.

Channels of Services

	Remote servicing	'Importing' the customers
Individuals	Telemedicine D-I-Y support • Tele-plumbing • Auto repairs • Tax advisory services • Horoscope reading • ... E-learning • Home-schooling • Adult professional courses – re-skilling Personal privacy services – providing server space to individuals for record maintenance	Tourism • Medical tourism, spiritual tourism, adventure tourism, etc. • "Dollar" shopping centres - duty-free shopping zones Education • Higher education for developed and developing countries • Training courses revolving around India's heritage – Ayurveda, cuisine, yoga, etc. Nursing houses and retirement services • Ashram model • Settlements near university towns
Corporates	IT services • IT consulting • Software application development • Knowledge networking IT enabled services • Data analysis and database consulting • HR & admin outsourcing • Digital media and content development (E-learning content, publishing, entertainment, etc.) • CAD/CAM design • Animation • Bio-informatics • Off-shore financial services • Real-estate management – security services Others • R&D across industry verticals – semiconductor technology, drug research, etc. • Legal/advisory services for MNCs	Tourism for corporate clients Education services for corporate clients

Targets (row label between Individuals and Corporates)

Source: Interviews; Literature search; BCG workshop; BCG analysis

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Exhibit 15

INDIA'S COMPETITIVE ADVANTAGE VIS-A-VIS OTHER NATIONS

Quantity and quality of manpower

Projected workforce in 2020 (vertical axis: Surplus ↑ / Shortfall ↓)

People strength (horizontal axis: Low ← → High)
• Productivity/quality
• Cost
• English language skills[1]

Plotted countries: India, Philippines, Mexico, Indonesia, Israel, Ireland, Turkey, Brazil, Malaysia, Russia, China

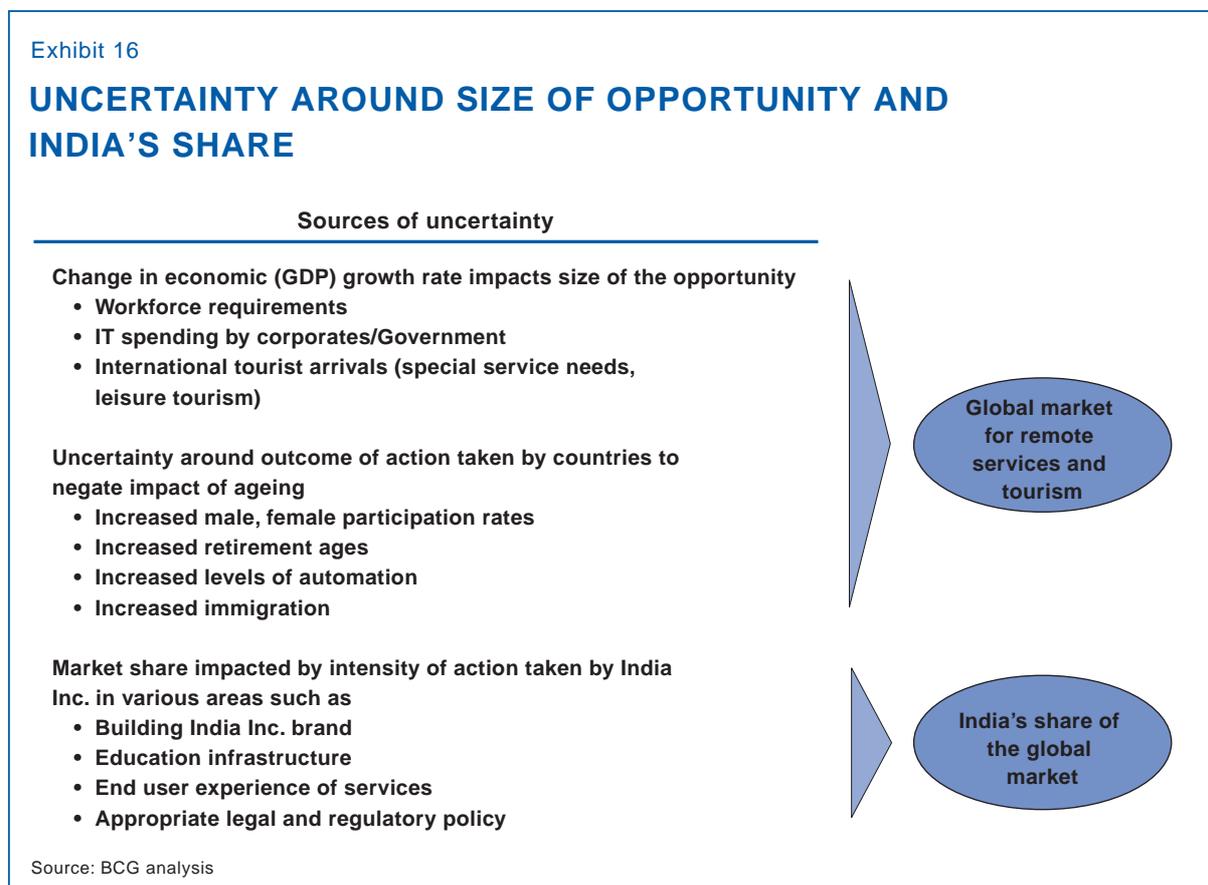(1) Over 50% of shortages expected from English-speaking countries
Note: Pakistan, Bangladesh and Vietnam have not been represented for lack of reliable data on productivity and cost of service employees
Source: World Competitiveness Yearbook 2001; Britannica Yearbook; Literature search; BCG analysis

While availability of a large, well-qualified human resource pool is definitely an advantage, winning in the competitive global marketplace would require several initiatives by India Inc. In Chapters 4 and 5, we shall discuss these initiatives in greater detail. But first we should identify the potential pitfalls and uncertainties that stand in the way of India realising this opportunity. An understanding of the global scenarios will guide our appreciation of the strategic actions required. The scenarios and uncertainties are discussed in the next chapter (Chapter 3).

The Uncertainty

Single-point forecasts are most likely to be wrong when there are many uncertainties. We cannot predict exactly what revenues and employment India can generate from the opportunity described in the previous chapter. But we can and should understand the principal causes of the uncertainty so that we can take actions, wherever feasible, to improve the outcome. The revenues and employment in India depend on two principal factors. The first is the <u>size of the global market for remote services and tourism</u>. The second is <u>India's share of the global market</u>. Exhibit 16 describes the sources of uncertainty underlying these two factors.

Exhibit 16

UNCERTAINTY AROUND SIZE OF OPPORTUNITY AND INDIA'S SHARE

Sources of uncertainty

Change in economic (GDP) growth rate impacts size of the opportunity
- **Workforce requirements**
- **IT spending by corporates/Government**
- **International tourist arrivals (special service needs, leisure tourism)**

Uncertainty around outcome of action taken by countries to negate impact of ageing
- **Increased male, female participation rates**
- **Increased retirement ages**
- **Increased levels of automation**
- **Increased immigration**

Market share impacted by intensity of action taken by India Inc. in various areas such as
- **Building India Inc. brand**
- **Education infrastructure**
- **End user experience of services**
- **Appropriate legal and regulatory policy**

Global market for remote services and tourism

India's share of the global market

Source: BCG analysis

Let us understand the principal causes more carefully. They are:

Decline in economic growth rate of the targeted countries, resulting in
- ❏ Decrease in workforce requirements
- ❏ Reduced IT spending by companies and governments
- ❏ Slowdown in tourist arrivals in India (for special service needs, leisure tourism)

Reduction in workforce shortage due to success of actions taken to negate the impact of ageing in these countries. Such actions include

- ❏ Increased participation of women in the workforce
- ❏ Increase in retirement age
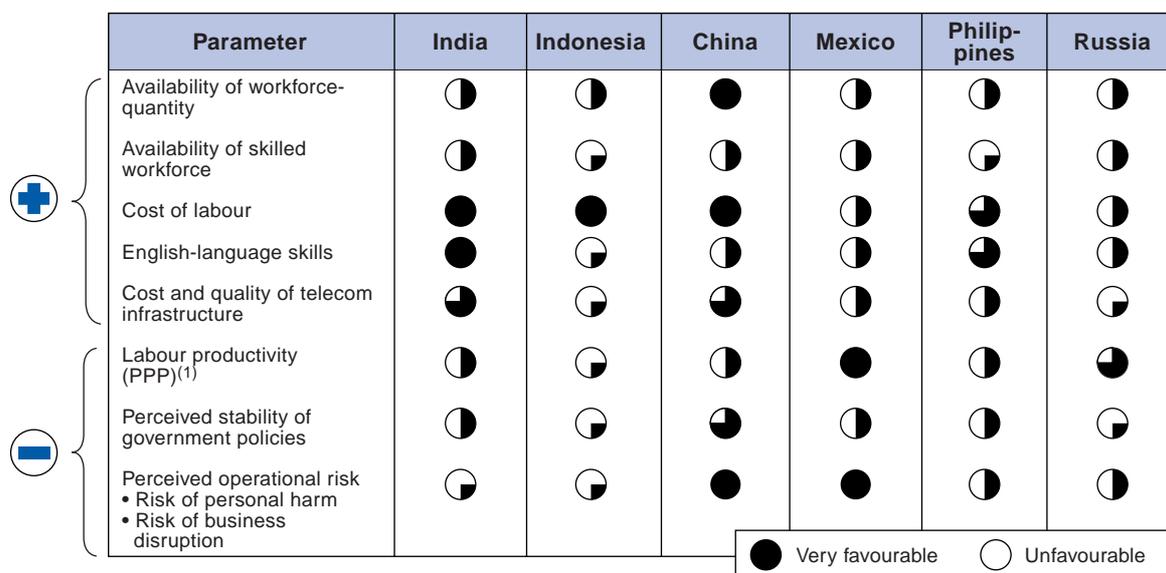- ❏ Increased levels of immigration
- ❏ Increased automation of services

Lower share captured by India in the global remote servicing and tourism (medical or leisure) business, caused by

- ❏ Poor brand perception of India
- ❏ Shortage of qualified workforce due to poor education system
- ❏ Unsatisfactory experience of customers with quality of services from India
- ❏ Delays and inefficiencies due to inadequate legal and regulatory infrastructure

There are three additional parameters that can affect India's share adversely. These are labour productivity, the perceived stability of government policies, and perceived operational risk. On these parameters, India compares unfavourably with China and Mexico, its closest competitors (Exhibit 17).

Exhibit 17

INDIA'S PERFORMANCE AGAINST COMPETING NATIONS

(1) Labour productivity for India highest in IT services vis-a-vis competing nations

Note: Russia and China included as they will compete in specific areas despite aggregate shortages; Israel and Ireland not included because they are not expected to be significant competitors due to lack of manpower

Source: World Competitiveness Yearbook 2001; Britannica Yearbook; BCG analysis

Although India cannot control or influence some of the causes of uncertainty, such as the growth rate of targeted countries, it can improve the quality of its services and the brand perception of India.

We cannot predict with certainty, for reasons explained, the exact size of the global market or India's share. However, we can anticipate reasonable ranges for these variables. The combinations of the possible ranges result in four alternative scenarios (Exhibit 18).

Exhibit 18

POTENTIAL SCENARIOS FOR OVERALL OPPORTUNITY

A brief description of the four scenarios follows.

"Top Guns"

Scenario One
August 15, 2020
India: Top Guns

Despite a recession at the beginning of the century, developing countries have posted healthy economic growth rates over the last 15 years. These growth rates were maintained despite the ageing of the population in the developed world by harnessing energies of younger people in developing economies. The economic prosperity has also resulted in the global tourism industry registering strong growth.

Realising the potential size of the opportunity in 2002, India put in place initiatives to tap it despite the uncertainty associated with the future. As part of its plan, India Inc. positioned its brand as a credible and value-for-money service provider, focused marketing efforts on select countries, and worked on improving the service experience of its customers. Enabling legal and regulatory frameworks were established, infrastructure was strengthened and the education system was reformed.

India's preparedness reaped strong results. India has posted ~8-10% p.a. growth in the last 15 years. Corporations from developed countries that are outsourcing to India have developed leaner cost structures and higher service levels compared with competitors who used local higher-cost and older resources. The early successes of outsourcing have further increased the growth of remote services and strengthened India's image as the most favoured destination for outsourcing services; additionally, the action steps taken by India Inc. significantly increased its share of special-service tourist arrivals. Today, developing countries quote India Inc. as a case study on 'breakthrough growth and economic development.'

"God of Small Things"

Scenario Two
August 15, 2020
India: God of Small Things

Developed countries witnessed sluggish growth in the past 15 years. The growth could have been further reduced had the developed countries not outsourced services to the developing countries. Outsourcing not only helped reduce costs but also helped in overcoming the challenge of workforce shortage, due to an ageing population.

India, because of its proactive action in fields such as building a strong brand image, improving the service experience of its customers, establishing appropriate legal and regulatory framework, and reforming the education system, was well positioned to tap this opportunity. However, so were some other countries like China, Russia, Mexico and Philippines. This led to fierce competition to obtain a large piece of a relatively small market. Additionally, India Inc. took significant efforts to expand the market: outsourcing was positioned to the developed world as the best option to boost competitiveness and increase economic growth, and standards were set to exceed customer expectations.

This proactive approach has reaped benefits. Though the market is not as large as projected, India has emerged as the preferred destination for outsourcing services as well as an attractive destination for medical and leisure tourism. The initiative has helped India reduce unemployment rates to some extent and achieve 6-7% economic growth. Additionally, Indian companies are ready to capitalise on the opportunity when the developed world witnesses higher economic growth.

"Paradise Lost"

Scenario Three
August 15, 2020
India: Paradise Lost

The recession at the beginning of the century did not last long and the developed countries posted healthy economic growth rates over the last 15 years. The growth coupled with an ageing workforce resulted in corporations and individuals resorting to outsourcing services to developing countries. The higher incomes also resulted in the global tourism industry registering strong growth.

Realising the potential size of the opportunity, China, Russia, Brazil, and Indonesia geared themselves early to capture a substantial share. They seized the most lucrative opportunities and established their credentials as a reliable provider. However, India could not harness its huge manpower to tap the attractive remote service segments, nor increase its share of tourist arrivals. The opportunity was often discussed, task forces launched, reports written, however, nothing significant reached the stage of successful implementation.

There are examples of small organisations and individuals within India who, against all obstacles, have reaped some benefit from this opportunity – but these are few and far between. Amidst rising social tensions created by a large base of educated, unemployed youth, India stands on the sidelines watching other developing countries move rapidly towards economic prosperity.

"If Tomorrow Comes"

Scenario Four

August 15, 2020
India: If Tomorrow Comes

The developed countries have witnessed slow to mediocre growth rates in the past 15 years. The market for outsourcing of services has also been small, as workforce shortages have been lower than projected and the developing world has not been able to create a compelling value proposition to make outsourcing the preferred mode of managing shortages. Hence, only nonessential activities are being outsourced to developing countries. Some developing countries are working on strengthening their value propositions so that outsourcing could witness higher growth rates in the future.

India is not in the consideration set for most customers since it is no longer reputed to be a value-for-money provider of remote services vis-à-vis other developing countries. Tourist inflow into India has kept pace with growth in world tourism. However, India is still perceived as a tourist-unfriendly, dirty, and 'difficult' country to visit, and not a tourist destination for the elderly.

As a result, India in 2020 is a shade worse off economically than in 2000. While growth has been 4-5% p.a., unemployment has reached catastrophic proportions and is the primary cause of social unrest. India Inc. is still struggling to understand why it has not been able to take advantage of the opportunity identified as early as 2002 and is searching for dynamic leadership to show it the way ahead.

Depending on which scenario materialises, the size of business and employment generation that India Inc. can expect to achieve would vary. Exhibits 19 and 20 outline the distribution of revenue potential and employment generation across the four scenarios. In Exhibit 19, total revenue is split into two categories: i) revenue from remote services (column 2 and 3), and ii) revenue from importation of customers (column 4). Revenue from remote services is further broken down into two buckets. The first bucket (column 2) represents revenue that will accrue from business opportunities based on current drivers, such as desire to focus on core business, need to manage costs, and shortages in specific skill sets. These business opportunities, e.g., software development and IT Enabled Services (ITES), are already available and will grow rapidly over time. The first bucket, therefore, represents the growth in these services. The second bucket (column 3) is revenue that will accrue from opportunities created as a result of the shortage in the workforce, caused due to ageing of the working population. A similar classification has been made in Exhibit 20, which represents employment creation.

Exhibit 19

DISTRIBUTION OF REVENUE BY SOURCE OF OPPORTUNITY IN 2020 ($ BN REAL)

Scenario	Remote services		Import of customers	Total
	Due to current drivers[1]	Due to future driver: ageing[2]	Healthcare education, tourism[3]	
Top Guns	110	205	50	365
Paradise Lost	60	111	9	180
God of Small Things	73	171	33	277
If Tomorrow Comes	40	93	6	139

(1) Offshore-able component of IT Services market ~$190-235 Bn in 2008 (overall IT services market $600-730 Bn); IT enabled services $142 Bn in 2008. Long term growth rate due to current drivers (2008-2020) assumed as 3-5%; Market share range of ± 30% from market share projections made by NASSCOM

(2) Net shortfall of working population 32-39mn; India's share 12-22%; average hourly wage rate $12 in real terms – conservative compared to current rates due to expected increase in competition

(3) Worldwide international tourist growth 4-7%; India's market share 0.4-2.0%; Revenue/Tourist will be $1230, same at current level. Education, healthcare is less than 5% of total opportunity under import of customers

Note: Current drivers are desire to focus on core business, need to manage cost, shortages in specific skill sets

Source: NASSCOM; CII; WTTC; Literature search; BCG estimates; BCG analysis

Exhibit 20

DISTRIBUTION OF DIRECT EMPLOYMENT CREATION BY SOURCE OF OPPORTUNITY IN 2020 (MN JOBS)

	Remote services		Import of customers	
Scenario	**Due to current drivers[1]**	**Due to future driver: ageing[2]**	**Healthcare education, tourism[3]**	**Total**
Top Guns	3	9	24	36
Paradise Lost	1.5	4.5	7	13
God of Small Things	2	7	21	30
If Tomorrow Comes	1	4	5	10

Additionally, opportunity will create indirect employment equal to the direct employment generation

(1) NASSCOM projections taken as base case; ratio of India Inc. revenues/employment creation kept constant for projections under different scenarios
(2) India share of shortfall 12-22%; average billing rates $12 per hour – conservative compared to current rates due to expected increase in competition
(3) Ratio of international tourists/direct employment creation changes from 1 in 2002 to 0.6 in 2020
Note: Current drivers are desire to focus on core business, need to manage cost, shortages in specific skill sets
Source: NASSCOM; CII; WTTC; Literature search; BCG estimates and analysis

In the next two chapters, we will discuss critical areas that the central and state governments, and companies should concentrate on to obtain the most benefit from the available opportunities.

chapter four
The Agenda For Action

We have identified the critical areas that Indian planners and companies should concentrate on to a) increase India's attractiveness to foreign customers (increase demand), and b) prepare Indian companies to effectively service this demand (expand supply to meet demand).

Six areas to boost demand are:

❏ **Market India by building a credible, unique positioning for India Inc. brand** – Build a powerful and unique positioning for the brand (reliable, safe, value-for-money, tourist-friendly). Establish credibility by managing concerns about operational risk (dispute with Pakistan, etc.)

❏ **Focus marketing effort on select countries and services** – Identify the largest and most lucrative markets for services. Market specific services to these countries

❏ **Build credibility with customers through partnerships** – Overcome the hurdle of credibility with potential customers by building partnerships with well-established service providers in those markets (leverage partners' customer relationships to create own client base and establish brand equity)

❏ **Promote acceptability of the offshore concept** – Educate customers, e.g., demonstrate to recruiting agencies and HR departments of corporations the effectiveness of e-learning vis-à-vis brick-and-mortar models. Work with industry associations and governments of other countries to introduce policy changes that will recognise remote services at par with brick-and-mortar models

❏ **(For inbound tourism) Improve the service experience** – Understand areas of dissatisfaction with service quality in the identified opportunities, e.g., acceptable service levels at international airports

❏ **Promote initial trials** – Devise low-cost and low-risk programs and schemes that induce individuals and corporations to try out services and enable refinement of business models, e.g., offer free medical advice initially to promote telemedicine

Six areas to boost supply are:

❏ **Develop domain expertise** – Acquire new business skills that firms may not have at present, e.g. e-learning firms need to know principles of courseware design, organisation design, change management, etc., besides software development. Firms need to recognise and address this issue though various means such as tie-ups with other corporations, recruitment of relevant people, etc.
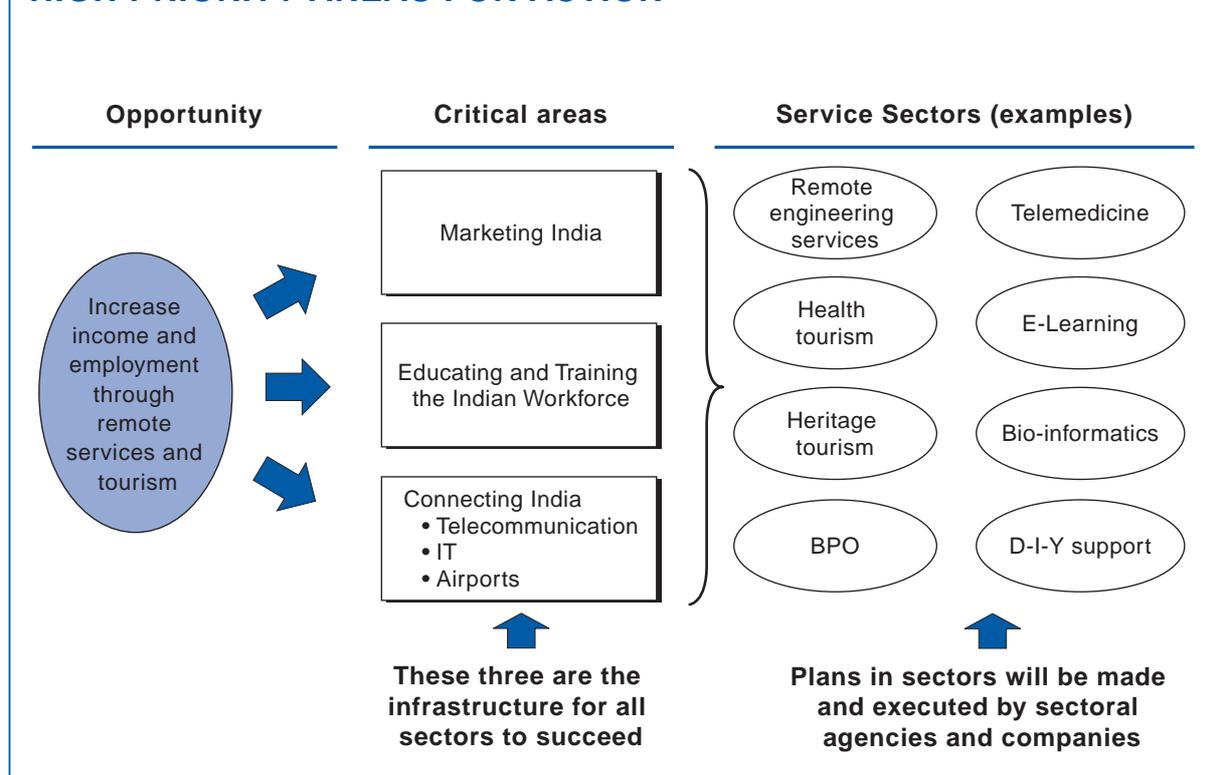
❏ **Align education and vocational training with market demand** – Map the demand for professionals today and in the future – in specific areas with specific skill requirements. Ensure people with relevant skill sets – those who can develop appropriate curriculum in programs, introduce creative funding mechanisms – implement education policy, etc.

❏ **(For inbound tourism) Strengthen relevant infrastructure** – Take action in critical areas where infrastructure is weak, e.g., airports and roads. Continue to strengthen telecom infrastructure

❏ **Promote public-private partnership** – The private sector should be invited to participate where the public sector is unable to provide the expertise or the resources, e.g., effective and efficient management of Humayun's tomb by the Oberoi group. The public and private sectors need to work collaboratively to seize any opportunity - jointly map out roles and execute against them

❏ **Form interest groups around opportunities** – Form clusters of companies around specific opportunities to aggregate issues and address them, e.g., a group of telemedicine companies can work jointly to identify their own issues in telecom, insurance, and health policies, etc., and address these through larger organisations like CII

❏ **Align regulatory polices to facilitate opportunity realisation** – Identify and change current policies that act as bottlenecks in realisation of opportunities, e.g., ease of obtaining visas for entry into India, insurance claim policies for users of telemedicine services

From the dozen areas listed above, we have distilled three areas for action that we believe have the highest priority and will have the most impact (Exhibit 21).

❏ **Marketing India**
❏ **Educating and Training the Indian Workforce**
❏ **Connecting India (telecom, IT, airports)**

These provide the fundamental 'infrastructure' for all sectors to succeed. For the remainder of this report, we will focus on these three areas.

Exhibit 21

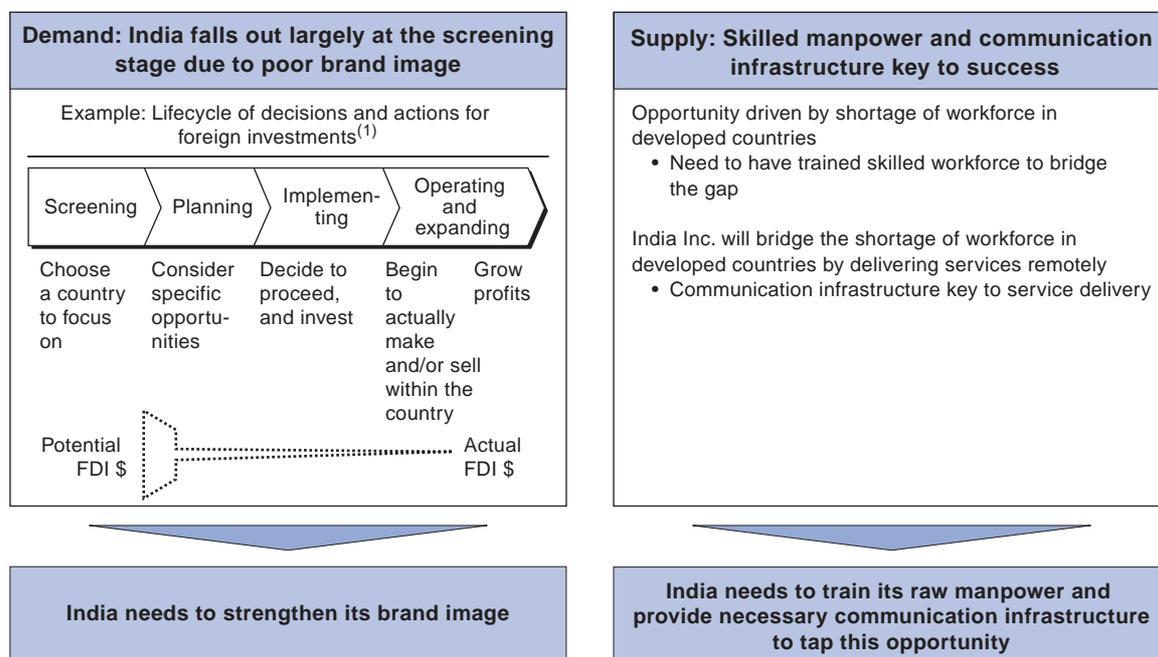**HIGH PRIORITY AREAS FOR ACTION**

A previous study on Foreign Direct Investment (FDI) undertaken jointly by the Center for International Development at Harvard University and The Boston Consulting Group analysed the decision-making process at MNCs for choosing FDI destinations. The study revealed that the process progresses through four stages (Exhibit 22).

1. **Screening:** Choose a country to focus on
2. **Planning:** Consider specific opportunities
3. **Implementing:** Decide to proceed and invest
4. **Operating and Expanding:** Begin to actually make and/or sell within the country; increase profits in the long run

The most striking finding of the study was that in most cases India failed to clear even the first stage of consideration in the evaluation process. India fell out at the screening stage largely because of a poor 'brand' image. Therefore, marketing India is a very important area for action by planners and corporations alike to stimulate demand for Indian services.

Educating and training India's workforce is the second area that deserves immediate attention. The existing education infrastructure cannot meet all the manpower needs that will result from the identified business opportunities. What is required

Exhibit 22

FDI DECISION-MAKING PROCESS AT MNCs

Demand: India falls out largely at the screening stage due to poor brand image	Supply: Skilled manpower and communication infrastructure key to success
Example: Lifecycle of decisions and actions for foreign investments[1]	Opportunity driven by shortage of workforce in developed countries

Screening ⟩ **Planning** ⟩ **Implementing** ⟩ **Operating and expanding**

Screening	Planning	Implementing	Operating and expanding
Choose a country to focus on	Consider specific opportunities	Decide to proceed, and invest	Begin to actually make and/or sell within the country — Grow profits

Potential FDI $ · · · · · · · · · · · · · · · · · Actual FDI $

- Need to have trained skilled workforce to bridge the gap

India Inc. will bridge the shortage of workforce in developed countries by delivering services remotely
- Communication infrastructure key to service delivery

India needs to strengthen its brand image

India needs to train its raw manpower and provide necessary communication infrastructure to tap this opportunity

(1) Based on Harvard-BCG study on FDI in India

are people with professional and vocational skills to suit the emerging demands, rather than people with merely general education. Therefore, a responsive system for vocational education, preferably with private-sector participation, may be required.

The third area that requires continuing attention is connectivity infrastructure. Since remote services depend on the availability and quality of the telecommunication infrastructure, crucial networks such as high-capacity international and domestic intercity links are urgently required. In addition to telecom, adequate IT infrastructure (e.g., cheap, easy access to computing facilities) is required. Inward tourism would also require improvement of other physical infrastructure such as airports and roads. Improvements required in infrastructure in India have received a lot of attention from government agencies and industry associations in recent times and much action is under way. No further analysis is required for the purpose of this report.

The next chapter outlines specific actions that different stakeholders need to take in the three areas highlighted above. Finally, we have also highlighted specific action items that relate to the two broad opportunities – remote servicing (information technology) and importing the customer (travel and tourism).

Making It Happen

Marketing India

Despite the success of its IT services industry in global markets, India is perceived un-favourably on some dimensions by prospective customers. The principal shortcomings are perceptions of security risks, unreliability of Indian suppliers generally (other than IT perhaps), and lack of sound infrastructure (despite significant improvements in telecom recently). Sources of information that investors and foreign business executives usually rely on do not convey a favourable impression of India. For most outsiders, India has an image of an exciting, but dirty and unsafe country. Also, India needs to move faster from its present image of merely 'low cost' to become strong on other important dimensions of customer satisfaction such as quality and innovation. While several agencies are working to promote India, their efforts are not coordinated. As a result, different images of India are projected and the fragmentation of resources across various initiatives leads to limited impact.

Recognising this weakness, the Ministry of Commerce created the India Brand Equity Fund (IBEF). The IBEF's charter was to provide support to exporters/service providers to strengthen their own corporate brands and promote the India Inc. label. However, the IBEF's impact has been limited by the mismatch between its objective and its resources and activities. The Ministry of Commerce has recognized that it cannot, by itself, run the IBEF. Therefore, it has commissioned the CII to assist it in redirecting and boosting the IBEF's efforts. This is a major step in the right direction.

Several actions are required to develop India's image as a reliable and risk-free source for valuable services. These are:

❏ Define a powerful positioning of the India Inc. brand, for example:
  ■ Talented resource pool, easy scalability, can offer complete solutions
  ■ Service culture, value-for-money destination
  ■ Attractive, safe, and friendly tourist destination

❏ Improve coordination between the government and industry associations (NASSCOM, CII, etc.) and between several government ministries (tourism, external affairs, commerce & industry):
  ■ Send a stronger message
  ■ Alignment on initiatives; ensure consistent messages
  ■ Exchange learnings
❏ Promote India via multiple mediums
  ■ Hire a professional PR agency to ensure that the perception of India equals reality
  ■ Identify champions in the administration in key countries such as the U.S. and U.K. to support India
  ■ Specific marketing campaigns, road shows, use of web-sites, etc.
❏ Use the India Brand Equity Fund more effectively to coordinate and energise the marketing of India

The agenda for actions by the central and state governments and the corporate sector to achieve these objectives is described in Exhibit 23.

Exhibit 23

ACTION AREAS FOR MARKETING INDIA

Align brand building efforts		
Central Government	**State Government**	**Corporate sector**
• Facilitate a convergence of 'brand building' efforts in ministries of tourism, commerce and external affairs • Facilitate alignment of central government 'brand building' with states' and industry associations' efforts	• Ensure positioning of state brand in line with India Inc. brand	• Align 'brand building' efforts of industry associations, e.g. CII, NASSCOM – define a powerful positioning of the India Inc. brand – hire a professional PR agency to ensure perception about India equals reality – create awareness about the IBEF among other corporates to maximise benefit – develop other mechanisms to promote India Inc. brand

Align efforts of India Brand Equity Fund	
Central Government	**Corporate sector**
• Transfer India Brand Equity Fund to an organisation with the appropriate skills and manpower strength to run the fund • Revisit mandate of IBEF with industry associations	• Create a cell within an industry association for administering the India Brand Equity Fund • The industry cell should – recommend a broader mandate to the government for the India Brand Equity Fund ▲ incorporate need for focus on remote services & tourism

Create favourable climate for investments	
Central Government	**State Government**
• Create favourable climate for foreign companies wanting to do business in India	• Create favourable climate within the state for foreign companies wanting to do business in state

Educating and Training the Indian Workforce

The nature of action required by India Inc. would involve:

- ❏ Investment in education infrastructure and faculty to increase supply of skilled professionals with relevant skills
- ❏ Investment in training institutions to upgrade skill sets required for remote services
  - ■ Vocational skills
  - ■ Communication (written and spoken)
  - ■ Etiquette
- ❏ Strengthening of the education curriculum to include
  - ■ Practical knowledge
  - ■ Know-how and understanding of other countries' cultures
  - ■ Foreign language skills
  - ■ Compulsory English language skills
- ❏ Creative funding mechanisms so that quality education is widely available
- ❏ Standards and bodies to certify skills to ensure employability by WTO members

Over the last couple of years, various committees have studied and made recommendations for boosting the quality of human resources. Most of the reports and committees have common themes, which suggests that there is agreement on what areas need to be worked on. However, the problem is the lack of alignment between the various interested parties, lack of continuity at implementing institutions, and fiscal constraints (Exhibit 24).

We believe that alignment within the Education Ministry on the guiding principles of action is necessary to prepare India for the business opportunities. There is also a need for consultation between governments, education experts, and business organisations to develop new, more effective approaches, especially for professional and vocational education. Possible guiding principles to make the education system more responsive to the emerging needs are shown in Exhibit 25. Suggestions for action by central and state governments and the corporate sector are given in Exhibits 26 to 28.

Exhibit 24

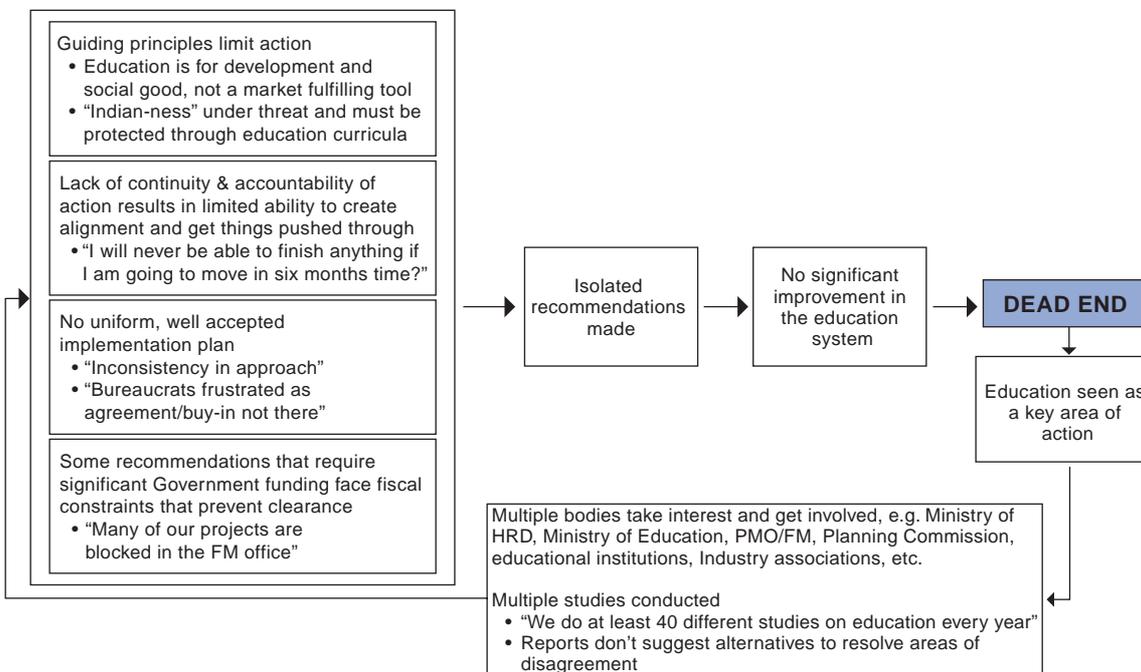## ROADBLOCKS IN IMPLEMENTATION OF EDUCATION REFORMS

Guiding principles limit action
- Education is for development and social good, not a market fulfilling tool
- "Indian-ness" under threat and must be protected through education curricula

Lack of continuity & accountability of action results in limited ability to create alignment and get things pushed through
- "I will never be able to finish anything if I am going to move in six months time?"

No uniform, well accepted implementation plan
- "Inconsistency in approach"
- "Bureaucrats frustrated as agreement/buy-in not there"

Some recommendations that require significant Government funding face fiscal constraints that prevent clearance
- "Many of our projects are blocked in the FM office"

Isolated recommendations made

No significant improvement in the education system

DEAD END

Education seen as a key area of action

Multiple bodies take interest and get involved, e.g. Ministry of HRD, Ministry of Education, PMO/FM, Planning Commission, educational institutions, Industry associations, etc.

Multiple studies conducted
- "We do at least 40 different studies on education every year"
- Reports don't suggest alternatives to resolve areas of disagreement

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Exhibit 25

ILLUSTRATIVE GUIDING PRINCIPLES FOR ACTION FOR EDUCATION

	Primary/Secondary Education	Higher Education	Technical Education (Vocational)
Principles	Education supports development and is a social good Curriculum should promote "Indian-ness" (history and culture)	Education supports individual (and collective) needs for research and development Curriculum covers broad array of relevant and emerging areas with commercialisation potential	Education supports development of individuals to engage in economic activity Curriculum should be responsive to market needs, and recognised world-over
Rationale	Basic skills (literacy, learning, etc.) necessary for development of people Basic skills in graduates well regarded globally History and legacy should be instilled in all (before specialisation)	Higher education increasingly specialised based on interest (and 'market' need) Many new areas emerging (e.g., biotechnology, genomics, etc.) Private investment necessary to support large cash needs in R&D (support with commercialisation process)	Skills training prepares individuals for job market Job market diversifying as India becomes service provider to the world Qualifications should be valued in developed markets, as employees will be servicing these markets

Exhibit 26

ACTION AREAS FOR IMPROVING HIGHER EDUCATION (UNIVERSITY/PROFESSIONAL EDUCATION)

Central Government	State Governments	Corporate sector
• Increase number of institutions and capacity per institute to create requisite number of professionals – aim to target enrolment of at least 10% of relevant age group up from current ~6% • Establish a process by which private sector can commercialise research (to increase private investment in R&D) • Increase autonomy of existing institutes in the areas of designing academic curriculum, managing infrastructure, and management and retention of faculty • Promote relevance (through modification of curriculum) and quality (upgrade infrastructure and training of teachers, etc.) • Allot funds to provide Internet and intranet to all higher education institutes to promote familiarity with information technology	• Increase autonomy of existing institutes in the areas of designing academic curriculum, managing infrastructure, and management and retention of faculty • Promote relevance (through modification of curriculum) and quality (upgrade infrastructure and training of teachers, etc.) • Allot funds to provide Internet and intranet to all higher education institutes to promote familiarity with information technology	• Work collaboratively with the government to – promote scientific research and experimentation in relevant areas – improve functioning of government run institutions by providing knowledge and expertise – provide inputs into the skill requirements for the newly trained persons/professionals

Exhibit 27

ACTION AREAS FOR IMPROVING TECHNICAL EDUCATION

Central Government	State Governments	Corporate sector
• Introduce courses in fields such as biotechnology, bio-informatics, nanotechnology, advanced new materials technology, and alternate energy sources • Set-up a central body to identify upcoming fields in technology in order to incorporate them into the curriculum • Develop schemes to expand, develop and retain the faculty in technical and management institutes • Network institutes and create common laboratories to share knowledge and optimise resources • Promote relevance (through modification of curriculum) and quality (upgrade infrastructure and training of teachers, etc.)	• Identify and initiate relevant courses in areas such as IT, biotechnology, etc. for the polytechnics and other state level technical institutes • Offer industry-oriented and practice-based technician degree programmes in selected polytechnics • Develop schemes to expand, develop and retain the faculty in technical and management institutes • Promote relevance (through modification of curriculum) and quality (upgrade infrastructure and training of teachers, etc.)	• Feed into the government the areas where there is an upcoming need for professionals, scientific research and experimentation • Contribute knowledge and expertise in relevant areas to facilitate design of course content and curriculum

Exhibit 28

ACTION AREAS FOR SKILL DEVELOPMENT IN EDUCATED BUT UNEMPLOYED OR SEMI-LITERATE ADULT POPULATION

Central Government	State Governments	Corporate sector
• Set-up Continuing Education Centers (CECs) and Nodal Continuing Education Centers (NCECs) in each state that work with the state government to initiate and co-ordinate training activities aimed at enhancing the employability of adults	• Help the nodal centres run by the central government to identify the professional skills required by employers in the region • Publicise the effort and motivate relevant people to enroll into the courses (~100 million neo-literates who can be targeted) • Support NGOs in the region that are pursuing similar activities	• Work collaboratively with the government to – improve functioning of government run institutions by providing knowledge and expertise – provide inputs into the skill requirements for the newly trained persons/professionals – help develop content for new course being introduced by providing expertise

Connecting India

Change in the telecom sector has been faster than in other sectors in India. Through the National Telecom Policy frameworks of 1994 and 1999, the government, with inputs from industry, first developed a shared view of the desired future scenario. Fundamental principles to guide the deregulation and privatisation of the industry were agreed upon. These were to ensure that the private sector has a 'level playing field' and that it develops rural telecom also. Broad implementation steps and milestones were also described. Even though there have been several stumbles on the way, as there will be in any journey of rapid change, reforms have been moving along. The key factors leading to the success in telecom reforms are described in Exhibit 29.

The momentum achieved in the telecom sector has to be maintained. Continuing change and growth will lead to a shakeout in the industry. There will be disputes over the changes in regulations as players are affected, sometimes with their survival at stake.

Therefore, the critical areas to focus on to develop a healthy telecom sector are:

❏ Improve the systems to resolve regulatory issues in a timely and fair manner
❏ Devise mechanisms for the telecom operators to overcome the financial crunch in the initial years so as to allow them to roll out their network and services

Exhibit 30 outlines key areas for action by the central government and the corporate sector.

Exhibit 29

KEY FACTORS CONTRIBUTING TO SUCCESSFUL REFORMS IN TELECOM

Telecom reform on priority agenda of influential people in the Government (ministers, bureaucrats)

Reforms pushed by industry due to their self-interest
• Industry associations
• Private players

No fiscal constraints on the Government to implement reforms – rather, reforms a source of income

Reforms in Telecom less complex as significantly smaller number of issues involved as compared to other topics such as education

Action agenda – Ability for all stakeholders to get to a common ground; disputes resolved quickly

Policy measures taken/revised to ensure reforms

Successful reforms in telecom

Roadblocks faced - pressure from government owned monopolies, red-tape, policy decision did not serve the requisite purpose

Source: BCG interviews

Exhibit 30

ACTION AREAS FOR IMPROVING TELECOM INFRASTRUCTURE

Modify regulations	
Central Government	**Corporate sector**
• Specify time limits for various regulatory procedures including dispute resolutions, interconnection and quality of service • Expedite the process of introduction of a common single license for all telecom services	• Develop a frame work/formal process for interaction between regulator and corporate sector so as to provide inputs in policy formulation and give feedback

Relax taxation
Central Government
• Temporarily relax the revenue share paid to the government so that operators have more cash to invest in telecom infrastructure

Facilitate financing of telecom companies
Central Government
• Include telecom as priority sector for funding by banks and other financial institutions

Sector-Specific Actions

Specific actions will be required in all the sectors that have the opportunity to earn foreign income from remote servicing and importing customers. As was mentioned at the outset, the purpose of this report is not to delineate the plans for all those who, by their active involvement, can benefit from the huge opportunity for India. Players in every sector will have to develop their own specific plans. As an illustration, we have described the broad agenda for two sectors. These sectors are information technology for remote servicing and travel and tourism for importing customers. We are aware that much work has been done already in the IT sector and that plans are being discussed to develop tourism. The plans and actions by people involved in these sectors will be, and should be, more precise than what we describe. The purpose of this report is to provide a stimulus and not to take over the work of others.

Information Technology

India is one of the leading exporters of IT services – driven mainly by the availability of a low-cost, English-speaking, qualified labour force. But huge gaps continue to exist on the supply side – the digital divide, for instance. While the urban population, with access to modern facilities, is increasingly getting used to computers, rural India is mostly starved of IT facilities. On the market side, India is facing competition from other countries such as China and may lose its current advantage if it does not move faster. Therefore, the challenge in IT will be to leverage India's strength of skilled, English-speaking manpower to remain a leader in the IT services arena.

Exhibit 31 details the action agenda outlined by the HLSG for the IT sector.

Travel and Tourism

Currently, India has a very small share of the world tourism market. In 2000, India received a mere 2.6 million of the nearly 700 million international tourists[1]. There are very good reasons why this number is so dismal. Current external sources of information do not portray a positive image of India. International tourists who visit India have a mixed experience. While most return satisfied with the variety of unique experiences India has to offer, safety, cleanliness, and quality of infrastructure still bother many. Therefore, returning visitors, by and large, describe their experience to others as "good, or even very good, BUT…". Quite clearly, attracting a larger number of international tourists and providing them with a high quality experience are the challenges for India.

(1) Source: World Tourism Organisation

Exhibit 31

ACTION AREAS IN INFORMATION TECHNOLOGY

Easy financing for IT projects

Corporate sector

- Develop confidence amongst the financial institutions in the potential of IT sector by conducting seminars and publishing reports like the NASSCOM report
- Develop a framework/norm for financing working capital by considering the intellectual/human capital as a part of tangible assets

Bridge the Digital Divide	**Set up technology parks**
Corporate sector	**State Governments**
• Seek help from NGOs for providing IT education in rural areas • Invest in R&D for developing affordable computer devices	• Set up technology parks like Hyderabad for IT companies

Single window clearance of IT enabled services	**International marketing**
Central Government	**Central Government**
• Provide facility of single window clearance for IT enabled services industry	• Identify top 10 markets for Indian IT services and undertake professionally designed marketing campaigns in these markets

To develop the potential of India as one of the finest tourist destinations in the world, India Inc. should consider the following goals:

- ❏ Develop a few tourist attractions to world-class standards
    - ▪ Identify 5-6 tourist circuits and develop them
    - ▪ The central government, state governments, and the corporate sector will need to work together to develop these places
- ❏ Build an effective international marketing campaign to attract tourists
    - ▪ Hire a professional agency to prepare a marketing plan for key locations
- ❏ Ensure a smooth and hassle-free stay for the tourists
    - ▪ Visa on arrival
    - ▪ Tourist security police at important destinations
    - ▪ Private participation for maintaining key monuments/properties

The HLSG has outlined an action agenda for the stakeholders in order to achieve the three goals identified above. These are detailed in Exhibits 32, 33 and 34.

Other areas in which action is required are the development of adequate manpower to provide world-class hospitality services, improvement of airport facilities to provide hassle-free travel, and development of high-end health care infrastructure. An agenda outlined by the HLSG for these three areas is given in Exhibits 35, 36 and 37.

Exhibit 32

ACTION AREAS IN TRAVEL AND TOURISM (I)

Integrated development of identified travel circuits		
Central Government	**State Governments**	**Corporate sector**
• Identify 5-6 tourism circuits for development[1] • Appoint one senior bureaucrat per circuit who will have complete responsibility for that circuit • Prepare an action plan for integrated development of these circuits to international standards • Develop transport infrastructure for the circuit • Co-ordinate with state governments and corporate sector for developing these sectors • Co-ordinate with other ministries (e.g. railways, finance, etc.) as required	• Participate in the process of preparing the action plan to develop identified circuits • Co-ordinate with local authorities as required by the plan • Provide tax incentives and other benefits for developing tourist infrastructure on the circuit • Actual execution of the plan	• Participate in the process of preparing the action plan to develop identified circuits • Build entertainment and accommodation infrastructure at the identified locations

(1) Tourism circuits are routes international tourists can take while touring in India – each tourism circuit will have 5-6 destinations of tourist interest

Exhibit 33

ACTION AREAS IN TRAVEL AND TOURISM (II)

Develop effective marketing plans and programs		
Central Government	**State Governments**	**Corporate sector**
• Develop a positioning statement for India Inc. (Example: 'Malaysia – Truly Asia', 'Amazing Thailand') • Develop comprehensive official Indian tourism web-site covering information regarding traveling, accommodation, site-seeing, etc. • Appoint a professional PR agency to manage India's image as a tourist destination on a full time, ongoing basis • Equip the 18 overseas tourism offices with latest information and marketing brochures • Get professional assistance for preparing marketing plans targeting key geographies	• Develop distinctive positioning for the State (Example: 'Kerala – God's own country') • Provide state specific inputs for the official Indian tourism web-site	• Location/event specific marketing through travel agents, web-site, etc. • Provide latest information for the official Indian tourism web-site

Exhibit 34

ACTION AREAS IN TRAVEL AND TOURISM (III)

Enhance visitor experience		
Central Government	**State Governments**	**Corporate sector**
• Enhance service quality and efficiency in visa issuance (e.g. visa on Sundays, reducing time required to issue a visa, etc.) • Identify countries whose citizens can be provided visa on arrival and implement the 'visa on arrival' system as soon as possible • Employ professional property management agencies to manage airports, railway stations, bus stations, etc. • Seek corporate sector participation in maintaining specific tourist attractions • Reduce taxes for tourism related industries like hotel and travel • Set up an independent certification agency that will grade all tourist related services	• Deploy tourist security police at all important destinations • Reduce state taxes on tourism related industries like hotel and travel	• Participate in government's initiative to outsource property management services • Participate in government's initiative to seek corporate sector's help in maintaining specific tourist attractions • Provide best possible services to the tourists

Exhibit 35

ACTION AREAS FOR IMPROVING HOSPITALITY SERVICES

Human resource development		
Central Government	**State Governments**	**Corporate sector**
• Set up additional institutes for training students in hotel management and catering technology (it is estimated that only 50% of requirements can be met by current capacity in these institutes)	• Organise mobile training courses at low cost for small-scale agencies involved in servicing tourists (low grade hotels, travel agents, entertainment centers, etc.)	• Ensure proper training of staff for servicing tourists

Other initiatives	
Central Government	**State Governments**
• Set up market intelligence network to provide latest and reliable tourism data • Educate all ministries/Government bodies of the benefits of tourism to make it a national priority	• Plan cultural events/trade seminars/food festivals to attract international tourists • Develop rural handicrafts industry

Exhibit 36

ACTION AREAS FOR IMPROVING AIR-TRAVEL

Restructure airports	
Central Government	**Corporate sector**
• Expedite the process of restructuring airports through corporate sector participation • Formulate formal guidelines for corporate sector participation in airport infrastructure and set performance standards • Regularly monitor the airport infrastructure and services against specific standards	• Participate in building airport infrastructure • Ensure performance against standards set by government

Formulate civil aviation policy
Central Government
• Formulate a comprehensive civil aviation policy covering all aspects relating to regulatory framework, airport infrastructure, domestic and international air transport, etc.

Allow equity participation for foreign airlines
Central Government
• Review the ban on equity participation by foreign airlines since foreign airlines have experience in this business

Exhibit 37

ACTION AREAS FOR DEVELOPING HIGH-END HEALTHCARE INFRASTRUCTURE

Develop infrastructure for providing high-end healthcare	
Central Government	**Corporate sector**
• Create incentive structures (e.g. tax breaks) which encourage the corporate sector to set-up more infrastructure	• Need to set-up more high-value hospitals/health care facilities – specialty facilities with state of the art equipment and high service levels • Develop business models to make these facilities have a smaller gestation period

Set-up a healthcare insurance base in India
Corporate sector
• Private firms in the insurance sector should set-up medical insurance facilities and also tie-up with foreign insurance companies to cover foreigners coming into India for healthcare facilities • Corporates in the healthcare sector should actively control medical fraud, insurance fraud in order to encourage insurance firms to provide medical insurance products

Finally, we repeat that these are suggestions by the HLSG to stimulate ideas and actions. Unless the people who must make changes take ownership of the solution, by developing the solution themselves, and unless they move in alignment and faster, India will miss a huge opportunity to boost its economic growth and provide employment to millions of educated young people.

chapter six

Conclusion

1. India can accelerate its economic growth and mitigate the unemployment problem that is forecast for the coming decades by seizing a huge opportunity provided to it by a combination of global developments in industry, trade, and demographics

2. Many agencies in India need to act now to prepare to capitalise on this opportunity. Even in a pessimistic scenario of global economic growth, the gains for India are very large. Therefore, we should not waste further time debating the precise size of this opportunity. Rather, we must move to action

3. The HLSG has identified changes required at the macro level and has recommended solutions. Concerned agencies must now be vigorously engaged. Action is also required in many sectors where business people and government agencies must continue to work together or begin to work together more effectively to ensure that India Inc. wins

Entrepreneurship in thought and action, alignment amongst actors, and speedy execution are the keys to success.

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