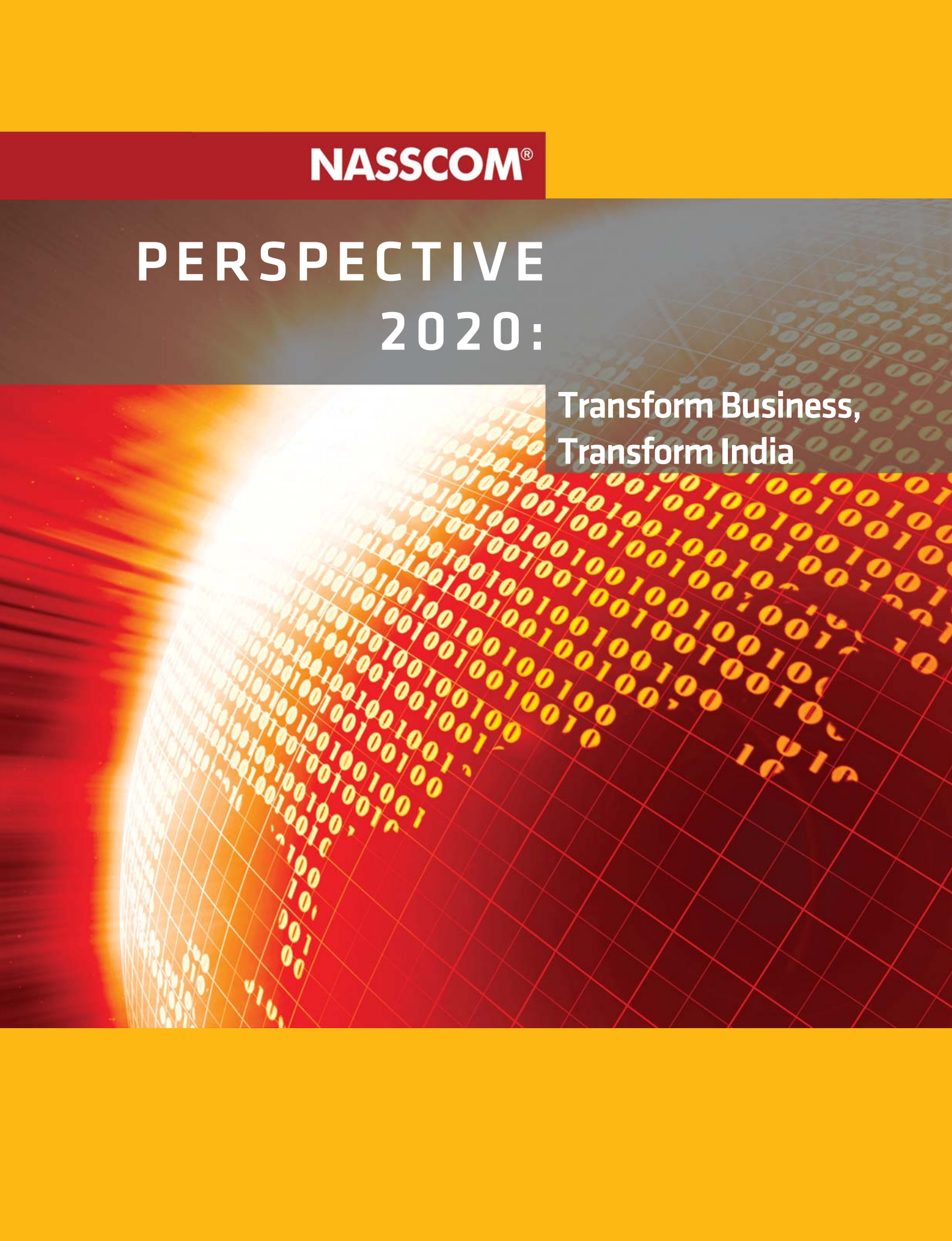


NASSCOM[®]

PERSPECTIVE 2020:

**Transform Business,
Transform India**



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Knowledge Partner — McKinsey & Company

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Executive Summary

The Indian technology and business services industry has had a phenomenal run over the last 10 years, contributing massively to India's growth. The industry has grown from USD 4 billion in revenues in 1998 to a USD 52 billion giant today, employing over 2 million people, and has had an unparalleled impact on the Indian economy.

The industry is now at an inflection point in its evolution. Industry leaders recognise that the next decade will be fundamentally different from the last one, owing to a radically restructuring global economy; rapidly evolving customer needs, services and business models; and rising stakeholder aspirations. Several factors could alter the industry's growth trajectory. For one, the global economy is facing the worst economic crisis since the Great Depression. What started as a sub-prime mortgage crisis has now engulfed the entire global economy, especially the industry's traditional export markets, the US and Europe. Furthermore, inexorable shifts in macroeconomics, demographics, society, the environment, business practices and technology could radically alter demand (e.g., new geographies, segments, and offerings) and supply (e.g., the threat of competition from several other low-cost locations). At this critical juncture, it is imperative for the industry, NASSCOM and the government to articulate a long-term growth perspective and work seamlessly towards achieving it. *Perspective 2020* paints the way forward for these stakeholders to "Transform Business, Transform India".

Perspective 2020: Transform Business, Transform India was developed through an extensive six-month effort, involving discussions with the NASSCOM Executive Council and over 50 industry leaders across the spectrum of NASSCOM members. In addition, over 50 clients of business and technology services firms were surveyed across developed markets and India. Moreover, insights were drawn from McKinsey & Company's proprietary P360° surveys.

This report is divided into five sections:

1. The Decade in Review
2. Perspective 2020: An Altered Landscape
3. Transform Business, Transform India
4. India's Opportunity at Risk
5. An Agenda for Action

1. The Decade in Review

The Indian technology and business services industry has had an unprecedented impact on the Indian economy. Between 1998 and 2008, it quadrupled its contribution to India's GDP from 1 per cent to 4 per cent. During this period, the industry's exports offset close to 65 per cent of India's cumulative net oil imports, strengthening India's foreign reserves. The industry has also spawned growth in ancillary industries such as security services, catering, construction and transportation. Between 1995 and 2005, it contributed up to 45 per cent of incremental urban job creation (including direct and indirect employment). Furthermore, it has helped expand tertiary education significantly; the top seven states that account for about 90 per cent of industry exports (Tamil Nadu, Maharashtra, Karnataka, Andhra Pradesh, Delhi, Haryana and UP) have founded six to seven times more colleges than have other states.

The industry has also set a precedent for talent practices in India. It has created career opportunities for the youth (70 per cent of the workforce is in the age-group 26 to 35 years), provided global exposure (up to 30 per cent of delivery is provided from outside India), and offered extensive training and development (entry-level training, scholarships, sabbatical for higher education). It pioneered the concept of employee ownership in India by way of employee stock options. Furthermore, the industry has been a front runner in diversity at the workplace (over 30 per cent of employees are women; over 60 per cent of industry players employ differently abled people). Finally, the industry has been a champion for Corporate Social Responsibility; a recent survey of over 120 firms showed that over 85 per cent participate in social causes.

The industry has also enhanced India's credibility as a business destination by creating a fundamentally new model of global 24x7 service delivery; forging relationships with 75 per cent of the Fortune 500 companies; generating immense savings for customers (savings from global sourcing for customers amounted to an estimated USD 20 billion to USD 25 billion in 2008 alone); and promoting a focus on quality (65 per cent of all Capability Maturity Model or CMM, Level 5 firms are based in India). In addition, the industry has fostered the emergence of a large number of first-generation entrepreneurs.

While these achievements are a cause for celebration, much remains to be done to sustain competitiveness. The industry's growth has been based mainly on growing adoption of global sourcing by large enterprises in developed countries, with relatively limited change in supply and business models. For example, reforms in education, especially tertiary education, have yet to be implemented. Companies' business models have largely been centred on delivering a one-time labour arbitrage based on an offshore-centric model, as indicated by a significant premium of three to four times in onsite rates for similar skill levels.

Further, there are several risks to industry growth in the near term. The global economic crisis is likely to result in a short-term reduction in client budgets (e.g., discretionary IT investments) and pricing pressures in certain segments, particularly in core verticals (e.g., banking, financial services and insurance or BFSI) and geographies (e.g., the US, Western Europe). The threat of protectionism also looms large in the wake of increasing global unemployment. Finally, recent events, such as the lapse in corporate governance and terror attacks, have precipitated the need to re-establish client confidence in further scaling up operations in India.

The first report by NASSCOM and McKinsey & Company (*Indian IT Strategy*, 1999) had set an aspiration of USD 50 billion in exports by 2008. While many observers had expressed reservations, the industry has largely been on track to achieving this target. That said, the aspiration for 2010 is at risk since an unprecedented slowdown is expected in key markets overseas (the US and Europe). A delay of at least three to four quarters is anticipated in reaching the 2010 target of USD 60 billion in exports.

2. Perspective 2020: An Altered Landscape

Despite near-term uncertainty, several global megatrends will reshape the industry landscape. These megatrends will create opportunities by expanding new markets as well as risks by shrinking existing ones. The industry landscape will be fundamentally altered on the demand-side (customers and their needs), as well as supply-side (talent and business models).

2.1 Global Megatrends

Our research suggests that macroeconomic, demographic, social, business and technological trends are likely to alter the landscape of global business and society in the next 20 to 25 years.

Macroeconomic and demographic trends: The global economy will witness a major shift in the coming years. Asian countries (excluding Japan) are expected to grow more than twice as fast as the developed economies of North America, Japan and Europe. The share of Asian countries (excluding Japan) in global GDP is likely to rise from 10 per cent in 1998 to around 20 per cent in 2020, mostly at the expense of Japan and Europe.

In addition, several regions, especially some European countries (e.g., Italy, Germany, and The Netherlands) and Japan, will experience a decline in working-age populations. Japan's working-age population is expected to decline from 83 million today to 75 million in 2020. The number of employees retiring from the services sector in Japan by 2020 is likely to exceed 3 million – more than the entire workforce employed by the Indian global sourcing industry today. These regions will also see a dramatic increase in the elderly population. For example, the number of people aged 60 and above in the US will expand from 38 million today to an estimated 54 million by 2020.

These trends will have far-reaching implications for the industry:

- New opportunities will emerge, e.g., healthcare services for ageing populations; productivity solutions and redesigned processes to address the talent shortage
- Adoption of global sourcing will increase to overcome the deficit in working-age talent in some geographies, although modified retirement policies and improved productivity will partly address this problem
- Fast-growing economies such as Brazil, Russia, India and China (BRIC) will require different value propositions and business models.

Social and environmental trends: The world is becoming increasingly interconnected. Adoption of technology is likely to expand further, with a major impact on the way people live and interact. For example, in the last 10 years mobile-phone penetration in India has increased from less than 1 per

cent to around 25 per cent of the population, and is growing at the rate of about 10 million new subscribers each month. The next decade will see the Internet revolution expand beyond the urban desktop to the rural handheld device.

Separately, there is unprecedented pressure on natural resources due to growing demand. For example, while global energy demand is expected to rise in line with GDP growth, supply will be severely constrained as an estimated 94 per cent of the world's available oil has already been discovered.

These trends will change the way services are procured and delivered:

- Given increased connectivity, new customer segments (e.g., Small and Medium-sized Businesses or SMBs) will enter the market
- Non-traditional delivery platforms will emerge (e.g., mobile payments; mobile TV; Software as a Service or SaaS; cloud computing)
- Innovative solutions will be sought for reducing carbon emissions and improving energy efficiency (e.g., CO₂-emission monitoring).

Business and technology trends: The ongoing economic crisis in global markets has been debilitating to businesses (banks across the US, Europe and Asia reported over USD 700 billion in credit losses at the end of 2008) and will impact how they are run going forward. Regulatory requirements on businesses, especially in matters of corporate governance, risk management, security, and global accounting standards, are likely to intensify.

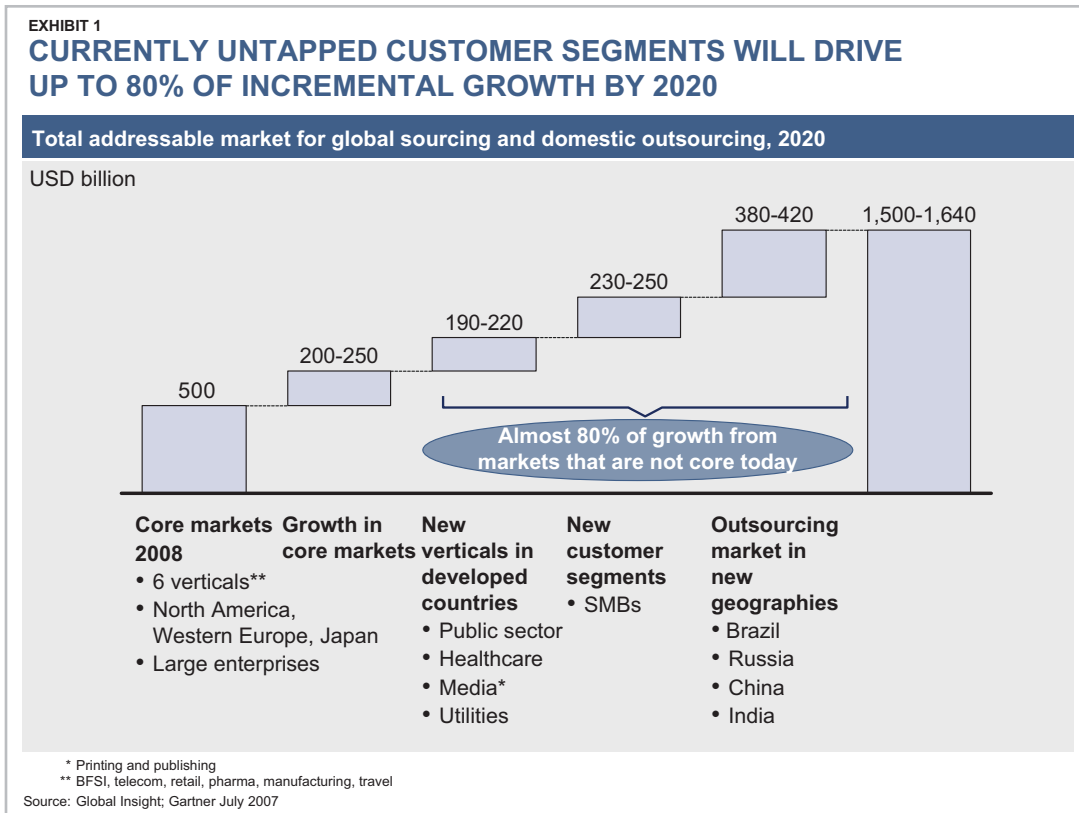
Technology's ever increasing relevance, along with its diminishing costs, will enable traditional corporations to further embrace it and reach new levels of performance. Technology will evolve in leaps and bounds in terms of coverage (e.g., near-field communication), collaboration (e.g., social networking), intelligence (e.g., artificial intelligence), flexibility (e.g., grid computing), security (e.g., biometric identification), and climate friendliness (e.g., green IT).

In addition, corporations will become increasingly interdependent, relying on a vast global network of suppliers and vendors and creating a corporate "ecosystem". Corporate boundaries will continue blurring as companies compete in overlapping industries and value chains become disaggregated. For example, the value chain for media-content creation and distribution is being reshaped across television channels, online portals and telecommunications providers. For the globally sourced technology and business services industry, the implications are as follows:

- The industry's core markets (e.g., the US) may introduce regulation to monitor global sourcing
- Automation and standardisation of processes and services may shrink existing market segments (e.g., data entry services)
- Labour supply chains will become "virtual" (location-independent), enabling seamless global delivery.

2.2 A Redefined Market

Global megatrends are likely to expand the addressable market (total revenue potential) for technology and business services three-fold, from the current USD 500 billion to approximately USD 1.5 trillion to USD 1.6 trillion by 2020 (Exhibit 1). Today's core markets will grow up to one and a half times, contributing 20 per cent of incremental growth. The remaining 80 per cent is likely to come from new verticals, customer segments and geographies.



The addressable market for technology services exports in today's core geographies (the US, Western Europe and Japan) will continue to grow and is likely to reach USD 500 billion to USD 550 billion by 2020. Traditional IT outsourcing (remote infrastructure management or RIM) will constitute the largest market opportunity in technology services, amounting to USD 120 billion to USD 130 billion. Business services will overtake technology services and become the largest export-oriented opportunity with a total addressable market of USD 610 billion to USD 670 billion by 2020.

Despite some shrinkage, core markets will expand up to 1.5 times: Driven by economic growth, today's core markets (large enterprises in banking, financial services, insurance, telecom, retail, manufacturing, pharmaceuticals and travel in the US, Western Europe and Japan) will grow from around USD 500 billion today to USD 700 billion to USD 750 billion in 2020.

However, over a tenth of this opportunity is at risk of shrinkage by 2020 due to automation and process standardisation. The risk is more pronounced in the business services segment, where parts of major processes that can be globally sourced (comprising basic voice, basic data and basic rules-based

decision making) can be automated. In technology services, parts of traditional processes (largely application development and maintenance, testing) are at risk due to productivity improvement, process standardisation and automation.

At least four new verticals will emerge: New verticals that have limited adoption of global sourcing today (public sector, healthcare, media and utilities) are expected to emerge. An addressable opportunity of around USD 190 billion to USD 220 billion is expected by 2020. Healthcare providers and the public sector will contribute over 70 per cent of the opportunity.

At least two new customer segments will arise: Greater adoption of technology globally and the rise of new computing and delivery platforms will extend global sourcing to SMBs and individual consumers that have hitherto not adopted the practice. SMBs alone will contribute USD 230 billion to USD 250 billion of the addressable opportunity.

Focus on BRIC markets: As economic growth gathers pace in the BRIC geographies, their domestic outsourcing opportunity will grow to USD 380 billion to USD 420 billion. China will represent around 50 per cent of the BRIC opportunity, followed by India at around 25 per cent.

Driven by adoption of the redefined market, the global industry size for globally sourced technology and business services is expected to expand from the current USD 80 billion in revenues to approximately USD 450 billion by 2020.

2.3 The Domestic Opportunity

The addressable market for domestic technology and business outsourcing services in India is expected to expand five-fold by 2020 to USD 90 billion to USD 100 billion driven mainly by economic growth rather than changes in customer behaviours (e.g., adoption of IT).

Priority segments will mirror the global sourcing market. In technology services, BFSI and public services will contribute 40 per cent of the opportunity. In business services, call centres, BFSI non-voice services and finance & accounting (F&A) will comprise 55 per cent of the addressable market.

2.4 Industry Outlook

The future of the industry remains secure in the medium to long term, even in the face of recent macroeconomic trends.

With the global economic slowdown, global IT spending is likely to decline in the near term, though the extent remains uncertain. Spending on technology and business services is expected to be less affected than that on hardware and software licences. However, players need to budget for a decline in billing rates.

Depending on the conduct of players in the industry and a number of external factors (such as wage inflation, regulatory pressures and security concerns), India's technology and business services exports could range from USD 65 billion to USD 75 billion in fiscal year 2012.

By 2020, global megatrends will dramatically alter the landscape for the technology and business industry. The industry will see shifts both on the demand side (customers and their needs), as well as supply side (talent pool and business models).

Demand side: Today's focus on large companies in the US and UK will expand to new geographies, segments and verticals. Asia will bypass Europe as the second largest target market. A sizeable untapped segment of SMBs will open up (estimated to be over 100,000 companies today in the US alone). Customers will require a value proposition underwritten by far more than labour arbitrage, covering innovation, revenue enhancement, risk management, etc. Further, global delivery will become the norm as value chains disaggregate and corporate identities become inherently global.

Supply side: The workforce will be characterised by a multicultural, multi-lingual, "virtual" talent pool. Talent practices for recruiting, development and deployment will be adapted accordingly. Deep expertise, rather than location-based costing will be the differentiator and basis for pricing premiums. Integrated players will emerge that execute on a portfolio of business models, each hinging on new sources of competitiveness. The divide between multinational versus domestic and boundaries around captive centres will collapse, making way for increased collaboration. The current "offshore" mindset will be rendered obsolete and global delivery will become the norm.

Given the current pace of reforms and expected constraints in talent and infrastructure supply, the exports component of the Indian industry is expected to reach USD 175 billion in revenues by 2020 (a decline in market share to 40 per cent). The domestic component will contribute USD 50 billion in revenues by 2020, which is larger than the total exports revenues for India today.

3. Transform Business, Transform India

The changed landscape of 2020 will unearth vast opportunities for the Indian technology and business services industry. The industry can build on a solid foundation constructed over the past decade – a new delivery model and global standards of quality – to lead the way in transforming business globally as well as transforming India.

Transforming business: The industry can invent business models to offer a fundamentally different customer value proposition. Further, it can create and commercialise breakthrough solutions (e.g., energy efficiency, mobile applications) that will transform global business.

Transforming India: The industry can also have a profound impact in India by unleashing technology to assist the underserved. The technology-enabled provision of basic services can catalyse the inclusion of 30 million citizens each year in India's economic growth, putting the nation on a robust trajectory to prosperity in 2020.

With this vision achieved, the industry can contribute up to 9 per cent of India's GDP and 30 million employment opportunities (direct and indirect) in 2020.

3.1 Reinventing Business Models

Indian companies have traditionally focused on excelling in delivery to clients in core markets using an offshore-centric model. By 2020, 80 per cent of incremental growth will come from new markets that will require venturing beyond this approach to pursue new arenas of competitiveness.

Players can attempt at least four winning approaches, offering new sources of competitiveness, as detailed below.

Delivery approach: Build on the “offshore” model to drive the evolution of technology and delivery. As an example, this could include a multi-client service factory model for specific technologies (e.g., lean factories).

Customer-centric approach: Focus on large global key accounts, offering solutions across multiple functions and services, based on privileged insights into client pain points. This model can include customer specialists and full-service providers.

Domain approach: Build specific solutions (accelerators, frameworks, next-generation process design) in a few, chosen domains (verticals and horizontals). This could imply a process-reengineering play (e.g., designing next-generation F&A process) or vertical specialist play (e.g., clinical research).

Solution approach: Drive non-linear revenues by leveraging market leading intellectual property. This could include development of industry-standard utilities (e.g., carbon-dioxide monitoring and optimisation), software products (e.g., core banking platforms) and subsequent commercialisation using a licence and maintenance-fee model.

These models entail a distinct set of performance markers, capabilities and management philosophies, and should be managed separately from current traditional approaches, and as part of a portfolio. The players that emerge at the top in 2020 will have moved well beyond the traditional delivery approach to nimbly implement and outperform on other approaches as well.

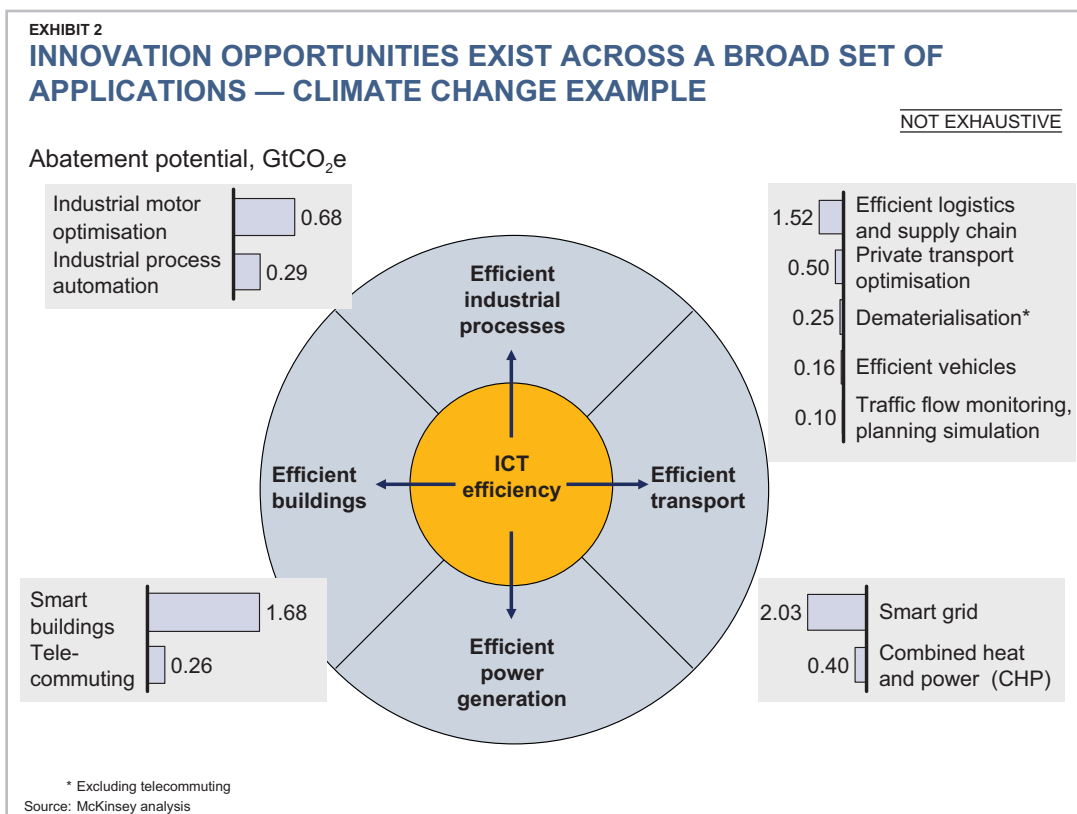
3.2 Fostering Innovation in Business

India has made significant progress in the global sourcing services industry and captured over 50 per cent market share. However, it still contributes less than 1 per cent of new patents in the world. Indian innovation clusters are still nascent compared with leading clusters such as Silicon Valley, Tokyo, and Tel Aviv.

A study of successful innovation clusters suggests that India can become a global innovation hub through five key initiatives: 1) cater to domestic demand; 2) enhance human capital; 3) improve the business environment; 4) provide more infrastructure, government and regulatory support; and 5) build external credibility.

India needs to identify specific areas of opportunity and build innovation ecosystems around them. A review of major industries suggests that India can play a distinctive role in global development in at least three areas: 1) clinical research outsourcing (CRO); 2) mobile applications; and 3) energy efficiency and climate change (Exhibit 2).

Innovation could increase the total addressable market in 2020 by over USD 200 billion. If these opportunities are captured, India's technology and business services exports could increase by USD 75 billion to USD 85 billion by 2020.



3.3 Catalysing Inclusive Growth through ICT

India's economy has grown at the compounded annual rate of 7 per cent a year over the past 10 years. Continued growth at this rate implies a two-fold increase in personal consumption by 2020. To sustain this trajectory, around 30 million people will need to be added to middle- or high-income groups annually. To enable inclusive growth, India will need to address demand-supply gaps in at least four key areas: healthcare, financial services, education and public services.

Traditional models have been ineffective, slow or expensive in increasing access to services in rural areas. For example, around 50 per cent of India's population is out of the range of primary healthcare centres and has little access to trained doctors. Information Communication Technology (ICT) solutions can enable new service models (e.g., telemedicine, mobile banking) that can overcome the

limitations of traditional models in healthcare, financial services, education and public services in India (Exhibits 3, 4).

EXHIBIT 3

THE INDUSTRY CAN TRANSFORM INDIA BY HARNESSING TECHNOLOGY TO ENABLE INCLUSIVE GROWTH

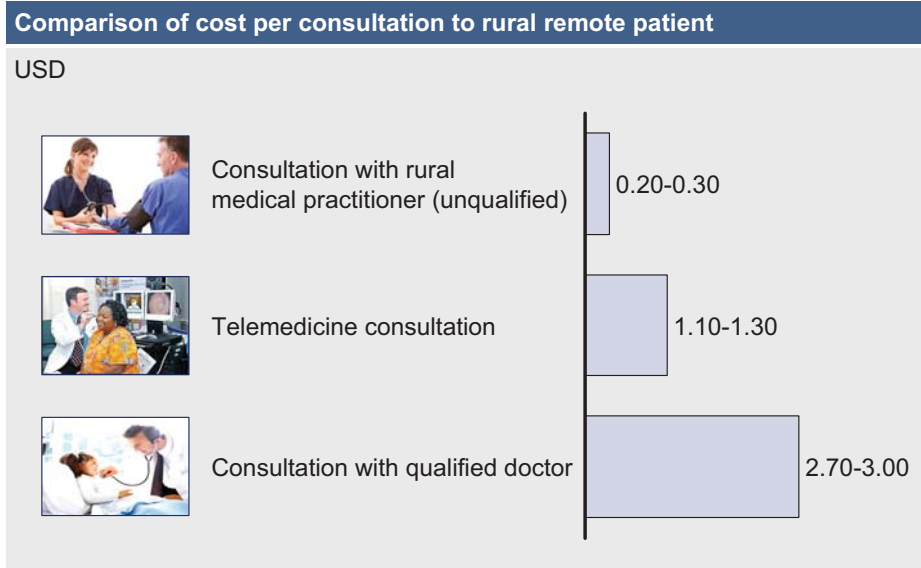
Areas	Potential of ICT solutions
Healthcare	50% of Indians do not have access to primary healthcare – technology can provide it at half the cost
Financial services	80% of Indian households do not have bank accounts – technology can enable access to 200 million families
Education	India faces a 3-fold shortage in teachers – technology can address this through remote solutions
Public services	India suffers from a leakage of 40-50% in public food distribution – technology can ensure transparency

Source: Expert interviews; McKinsey analysis

EXHIBIT 4

ICT-ENABLED SOLUTIONS OFFER SERVICES AT A FRACTION OF THE COST OF TRADITIONAL SOLUTIONS

TELEMEDICINE EXAMPLE



Source: Expert interviews; McKinsey analysis

Several ICT-enabled initiatives have already taken root in all four areas. However, achieving national scale remains a challenge. While several issues must be addressed to scale up successfully, creating a National Information Infrastructure (NII), including not only hard infrastructure (e.g., mobile connectivity, broadband and Internet access) but also soft infrastructure (e.g., ICT literacy, interoperable standards and unique ID) is a key imperative. Progress is underway on several major components of hard infrastructure; however, much more needs to be done to develop soft infrastructure.

Treating the NII, including hard and soft components, as a strategic priority will catalyse growth and create solutions that will make India a benchmark for the world in the universality and inclusiveness of economic growth.

4. India's Opportunity at Risk

India has been the destination of choice for global sourcing over the last 10 years and has garnered a 51 per cent share of the industry today. India continues to be the most competitive among 25 to 30 low-cost locations even today, as the 2008 edition of the McKinsey Location Readiness Index (LRI) study shows.

But India cannot afford to be complacent. While the industry could generate revenues as high as USD 375 billion in 2020, up to USD 150 billion of this opportunity is at risk. India's revenues in 2020 are likely to be USD 225 billion (including global sourcing and domestic outsourcing), unless a radical transformation is achieved in its business environment, innovativeness, and talent development.

Threats to competitiveness: India's dominance in the industry is likely to decline due to the following issues:

- The industry in India could face an employee shortage of up to 3.5 million. Employability of graduates is low (e.g., 10 to 15 per cent of graduates for business services, 26 per cent of engineers for technology services).
- Indian infrastructure is ill-equipped to support an industry five times larger. Today, more than 95 per cent of India's exports originate from nine Tier-I cities whose infrastructure is heavily constrained (power, road transport, air transport and water supply). In addition, the recommended move to Tier-II and Tier-III cities has not gathered momentum given poor access, local infrastructure and talent issues.
- Indian policies and business environment have not kept pace with industry growth. The industry continues to be governed by laws that are not tailored to the services sector (e.g., the Shops & Establishments Act) and are not consistently applied across different states. Confusion exists around continuation of favourable policies (e.g., Software Technology Parks of India or STPIs). The recent lapse in corporate governance and terror attacks have added to India's woes.
- Competition from at least 25 to 30 other low-cost countries could reduce India's market share by 10 per cent. China, Philippines, Eastern Europe and other emerging economies are undertaking bold initiatives to grab India's share. For example, China has close to 800,000 English teachers, a

sizeable number of them from overseas. In addition, these countries are offering incentives to the industry, including tax benefits and better infrastructure.

Indian industry scenarios in 2020: The possible scenarios for the Indian technology and business services industry will be determined by the outlook on adoption of global sourcing (“demand”) by customers, India’s competitive position (“supply”) and the actions of industry players (“conduct”) (Exhibit 5, 6).

There are four possible scenarios for the exports component of technology and business services industry, which totals USD 40 billion today:

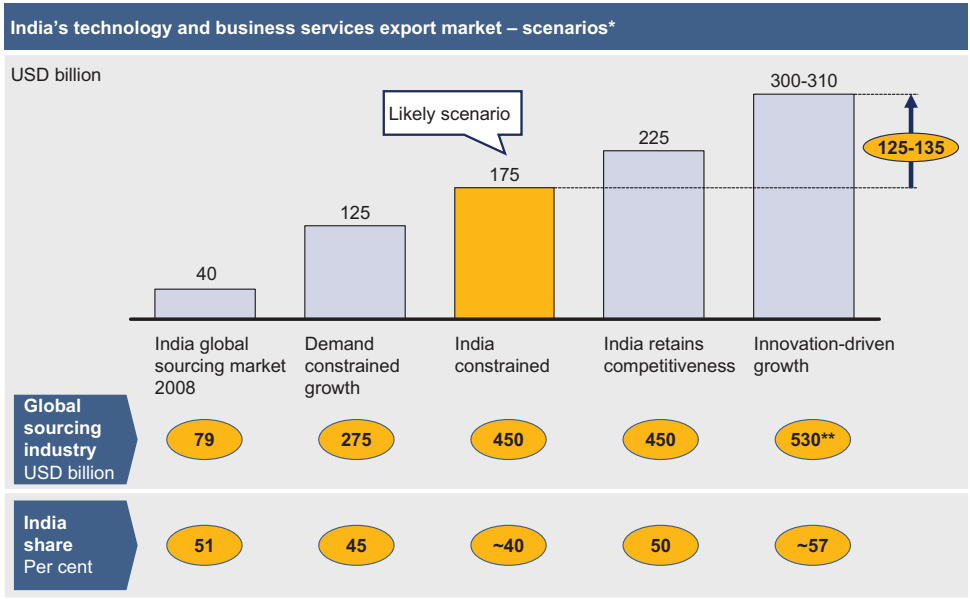
- Demand constrained growth (global sourcing pull-back): Adoption of global sourcing slows down considerably due to external constraints (e.g., protectionism given increasing unemployment, promotion of close-shore destinations by governments). This could be exacerbated by the decreasing attractiveness of the global sourcing value proposition (e.g., deterioration of cost savings, limited productivity improvements).
- India constrained: Limited constraints are imposed from source geographies. However, India fails to improve the employability and willingness of talent to work in the industry, resulting in a severe talent shortage. There is a minimal or no thrust on innovation. India would likely lose 10 per cent of its market share to other locations by 2020.
- India retains competitiveness: India maintains its 51 per cent share thanks to several industry-level initiatives that effectively counter the competition from other locations. Companies continue to play the labour arbitrage card with sporadic instances of innovation. India successfully bridges a talent shortage of 1.5 million people by doubling the employability of its graduates.
- Innovation-driven growth: In addition to retaining competitiveness, India fosters breakthrough innovation. This could add up to USD 80 billion in revenues to the industry, taking the total Indian global sourcing industry revenues to USD 310 billion. This distinctive position would hinge on cultivating a high-calibre talent pool and bridging an employment shortage of 2.7 million people.

For the domestic market, two scenarios are possible:

- Constrained growth: India’s real GDP growth slows to 5.5 per cent per year between 2008 and 2020. BFSI and telecom sectors continue to lead adoption followed by public sector, retail, healthcare and utilities. Talent supply is constrained by the lack of targeted skill development in the domestic market, and is limited to 1 million people (with a shortfall of 800,000 people).
- High growth: Industry revenues rise primarily on the back of economic growth (GDP growth of 7 per cent per year) and also healthy levels of adoption in the BFSI and telecom sectors and medium levels of adoption by public sector, retail, healthcare and utilities.

EXHIBIT 5

AN OPPORTUNITY OF UP TO USD 150 BILLION COULD BE AT RISK IN 2020 (1/2)



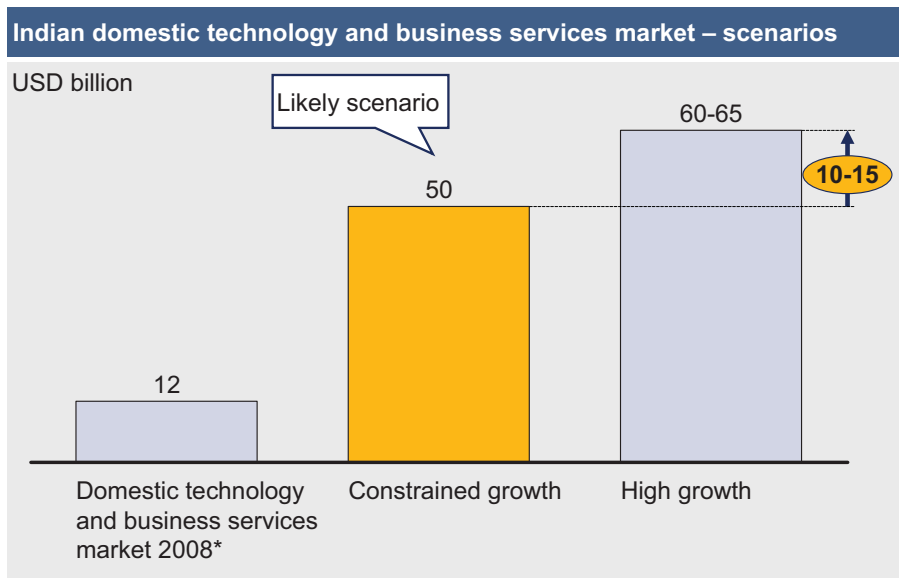
* Estimates based on talent supply/infrastructure/macroeconomic constraints and other adoption factors. Talent assuming employability, willingness and productivity improvements

** Includes only India-driven revenues for innovation

Source: McKinsey analysis

EXHIBIT 6

AN OPPORTUNITY OF UP TO USD 150 BILLION COULD BE AT RISK IN 2020 (2/2)

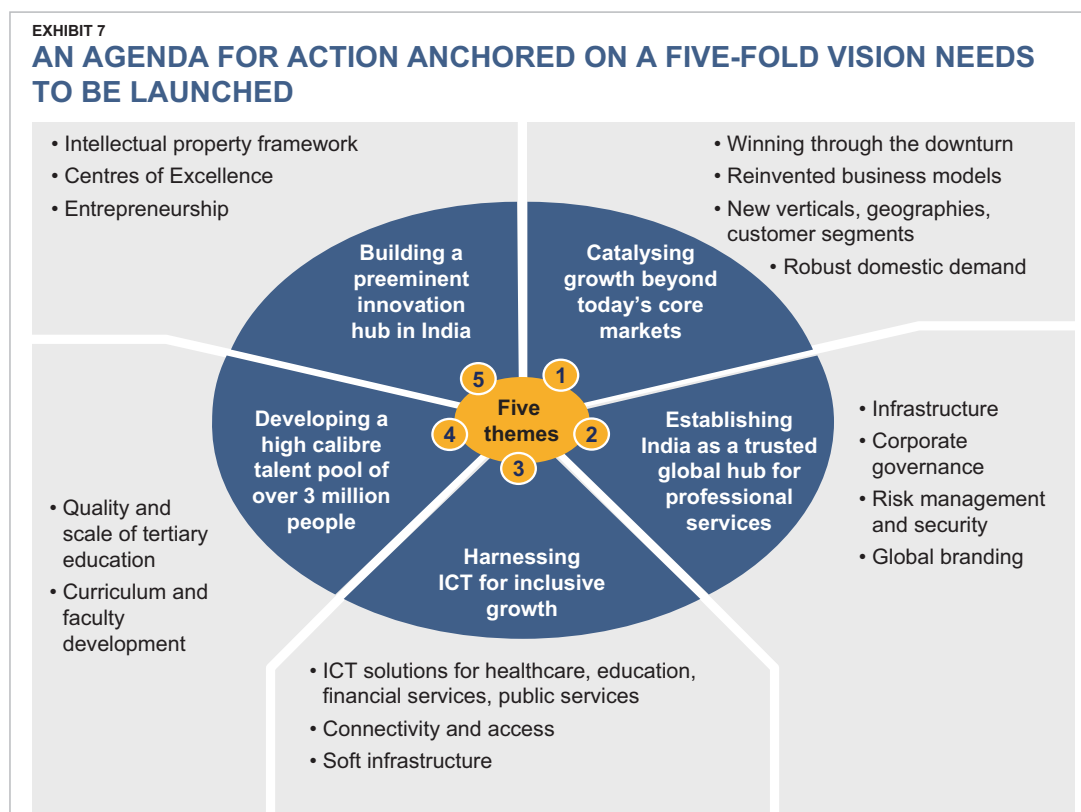


* Includes software products

Source: Global insights; McKinsey analysis

5. An Agenda for Action

To realise the opportunities available, industry stakeholders (companies, NASSCOM and the government) will need to act together in an unprecedented manner. Concerted action is required to capture the opportunities and mitigate the risks of 2020. This chapter paints the way forward for each of these stakeholders, anchored on a collective five-fold vision (Exhibit 7):



5.1 Catalysing growth beyond today's core markets

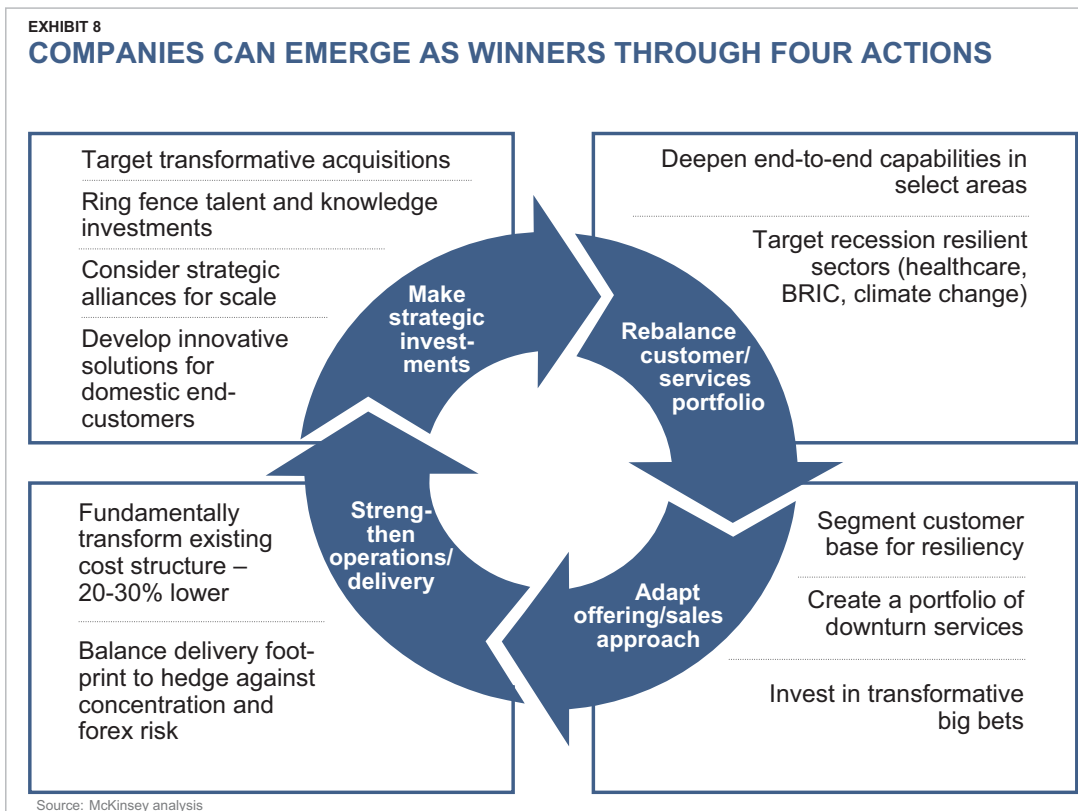
The industry can break ground in new markets (verticals, geographies, segments) through reinvented offerings and business models. Industry players can play a lead role in achieving this goal, with support from NASSCOM and the government.

Industry players face critical choices in three areas:

Winning through the downturn: The next few years will likely see an acceleration of competitive dynamics with winners being those who move quickly and decisively in the following ways (Exhibit 8):

- Rebalance portfolios (customers, geographies and verticals): Diversify outside core markets, selectively targeting customers and offerings in the core markets and focusing on winners
- Adapt offerings to suit customer needs in view of the downturn (e.g., risk management, cost reduction): Aggressively manage key accounts, and supplement core offerings with transformative risk- gain-sharing arrangements with clients

- Focus on operational excellence: Extract 3 to 5 per cent of the operational expenditure margin through a mix of cost and revenue levers to absorb pricing risks and rebalance delivery footprint to hedge against concentration risk
- Make strategic investments: Acquire assets under distress, recruit top talent, undertake initiatives to build knowledge and make strategic alliances with other players to fight the flight-to-scale.



NASSCOM can support the industry by providing mentorship on navigating the downturn and sharing best practices on imperatives such as operational efficiency. Further, it can engage with clients to understand plans and expectations, as well as with international governments to counter protectionism.

The government can reform policies and incentives to support the industry and ensure parity with other emerging nations. For example, fiscal incentives can be extended beyond 2010. Domestic spending can be increased through IT budget allocations for e-governance.

Competing with new business models: Industry players must execute on a portfolio of business models based on individual decisions on future growth markets, performance aspirations, and organisational capabilities.

NASSCOM can foster the creation of innovative business models by enabling entry into new verticals, geographies and customer segments by expanding its mandate to become a global ambassador for global services. It can also expand its global network and reach (through local chapters, affiliations) and support capability building (through advisory cells, research, etc.).

The government can also support globalisation by enhancing bilateral and multilateral agreements to ensure favourable immigration norms, counter protectionism and create a conducive tax environment.

Capturing the domestic outsourcing opportunity: Customer needs in the domestic market differ from those in the export market. For example, domestic customers place relatively more importance on access to expertise in managing technology than on cost reduction. Therefore, winners in the domestic market will need to create new business models that are distinctive on at least one and at par on the rest of five key attributes including: 1) low-cost delivery; 2) end-to-end service offerings; 3) specialised offerings for domestic markets; 4) local language capability; and 5) alternative “value-based” pricing.

NASSCOM can aid the industry in understanding and encouraging technology adoption in key domestic sectors and defining a roadmap. It can also foster dialogue (local CIO forums) and channel efforts to sectors of national significance (such as defence).

The government can reform policies to provide incentives for technology adoption by domestic companies. This will enable the industry to equip domestic players with world-class processes. Further increased budget allocations for technology adoption by the government itself will increase efficiency and effectiveness of government-to-consumer and intra-government interactions.

5.2 Establishing India as a trusted global hub for professional services

It is imperative to enhance confidence in India as a business destination by building a conducive business environment (improved public services, infrastructure, corporate governance, and security) and a strong global image.

Industry players can contribute to this vision through world-class infrastructure (green buildings), expansion to Tier-II and Tier- III cities to encourage development and participation in public-private partnerships. Further, corporate governance must be revisited and strengthened. The industry already has companies that exemplify best practices in this area. Finally, systematic initiatives to strengthen security and risk management are crucial in today’s environment. These would include increased screening of employees and vendors, reinforced disaster recovery and continuity capabilities.

NASSCOM can support infrastructure development by promoting cities that can serve as future hubs, developing an index to rank emerging destinations, and helping the government understand industry requirements. It can play a pivotal role in enhancing national security by enabling collaborations between the government and industry to develop technology solutions. Finally, NASSCOM is well positioned to launch a global campaign to publicise the capabilities of Indian providers and India’s renewed value proposition for global technology and business services.

The government can boost infrastructure development by allocating land for the development of satellite townships around industry hubs. It should focus on providing integrated physical and social infrastructure as well as regularly monitoring implementation. Further, the government needs to urgently develop a national security strategy and organisation, leveraging the private sector, to counter terrorism. Facilitating the investigation and prosecution of cybercrime is also an imperative. Finally, the government must support and partner with the industry to define global outreach efforts.

5.3 Harnessing ICT for inclusive growth

The government should pave the way for technology-enabled services in healthcare, education, financial services and public services. Establishing an NII will enable the private sector to step in and provide solutions. This would entail providing nation-wide connectivity and access (through policies and incentives) as well as improving soft infrastructure (ICT literacy). Establishing agencies to implement and sustain these efforts will ensure success.

Industry players can align themselves to serving the underserved in several ways. First, it would be important to understand the key enabling areas of inclusive growth and develop a roadmap for implementation based on best practices. Capabilities must be developed accordingly – offerings to cater to domestic price points, alternate delivery platforms, local language knowledge.

NASSCOM can help the industry focus beyond exports to national inclusive growth by identifying specific opportunities. It can also support the development of required standards (language processing on mobile platforms, interoperable systems) and soft infrastructure (scale up existing knowledge centres to improve IT literacy).

5.4 Developing a high calibre talent pool of over 3 million people

A talent shortage is the single-largest potential impediment to the industry's growth. However, if addressed it can give rise to India's biggest strength – offering the world the largest pool of working age and trained manpower. The government should make it a top-most priority to improve the quality and scale of tertiary education with support from NASSCOM.

The government can undertake specific actions such as easing regulatory controls on universities and colleges (on admission fees, faculty salaries, etc.), establishing new institutions, providing demand-based funding through student financial aid agencies, and so on. It should focus on improving curriculum and faculty quality, which can be achieved through partnerships with international governments, allocating budgets for targeted programmes, etc. Finally, the government can enhance private partnerships in higher education by easing regulations for entry and offering a coordinated scheme of incentives.

NASSCOM can scale up existing initiatives such as the NASSCOM Assessment Certificate (NAC) and National Faculty Development Programme (NFDP) to improve education. It can also partner with engineering colleges to enhance professional training, facilitate dialogue between the industry and academia on industry trends and manpower requirements, and encourage the industry to partner with universities to build PhD capacity in India.

The industry also has a role to play though it requires comprehensive support from the government given the magnitude of the issue. Industry players can collaborate with select universities to launch focused skill and faculty development programmes, offer internship programmes, launch e-learning programmes for university students, and establish on-campus facilities to provide training and involve students in research-related activities.

5.5 Building a pre-eminent innovation hub in India

Building an innovation hub will require active participation by all stakeholders.

Industry players should undertake measures such as acquiring niche players in nascent high-growth areas, co-investing in universities to drive primary research, and organising internships and collaborative projects. They can also collaborate with global players to gain expertise, visibility and international exposure. Finally, it will be critical to build organisational capabilities to sustain innovation.

The government must further strengthen an already well-defined intellectual property framework by expanding its scope. Enforcement of these regulations needs to be the major focus going forward. Further, the government can catalyse innovation by removing restrictions for research scientists and academics to commercialise research-driven ideas. It can also provide funding to research institutes based on patent generation or tax incentives for private R&D spending.

NASSCOM will play a crucial role in supporting innovation in India. It can ignite entrepreneurship by establishing incubators to serve as a clearing house of ideas, mobilise funding and foster networks and partnerships. Such initiatives are critical in an industry that is expected to grow five-fold by 2020 and will need new players to capture this growth potential. Further, NASSCOM can establish centres of excellence in collaboration with other industry bodies and institutions to develop pockets of expertise and innovation.

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India's technology and business services industry has flourished in the last decade. A bright future lies ahead and the industry has much to look forward to in the next 12 years. To realise its growth potential, India must retain its advantage over other global sourcing locations such as China and Eastern Europe by removing the constraints of talent and physical infrastructure. It is imperative for industry stakeholders to break out of the traditional mould that resulted in past successes and step up to the aspirations of 2020. Aligning on an ambitious vision for the industry in 2020 and working tirelessly for its implementation will bring this goal well within grasp.