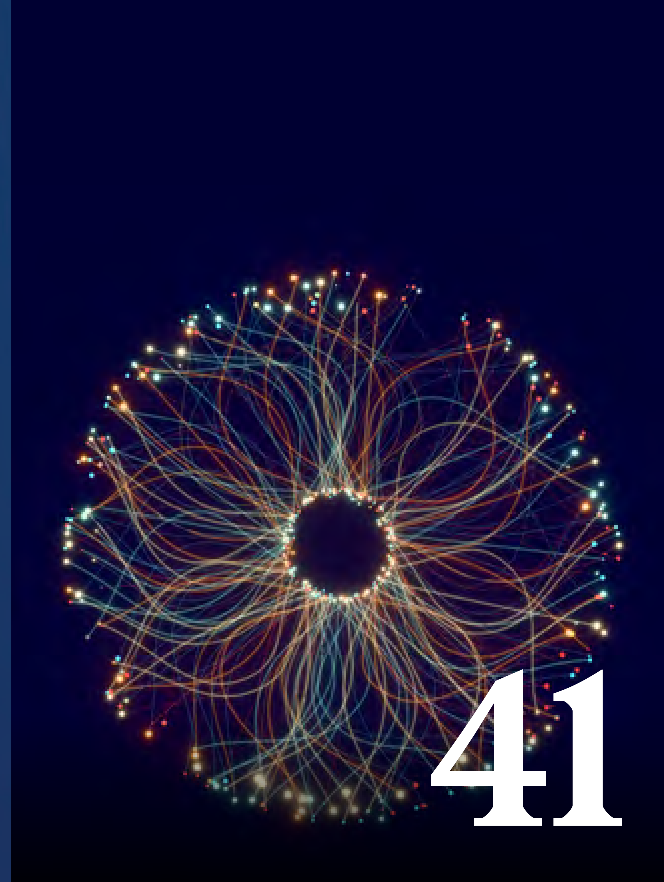
India: From ambition to action

A compendium of McKinsey insights about the world's fastest-growing economy

January 2026

Contents



Perspectives on India’s potential

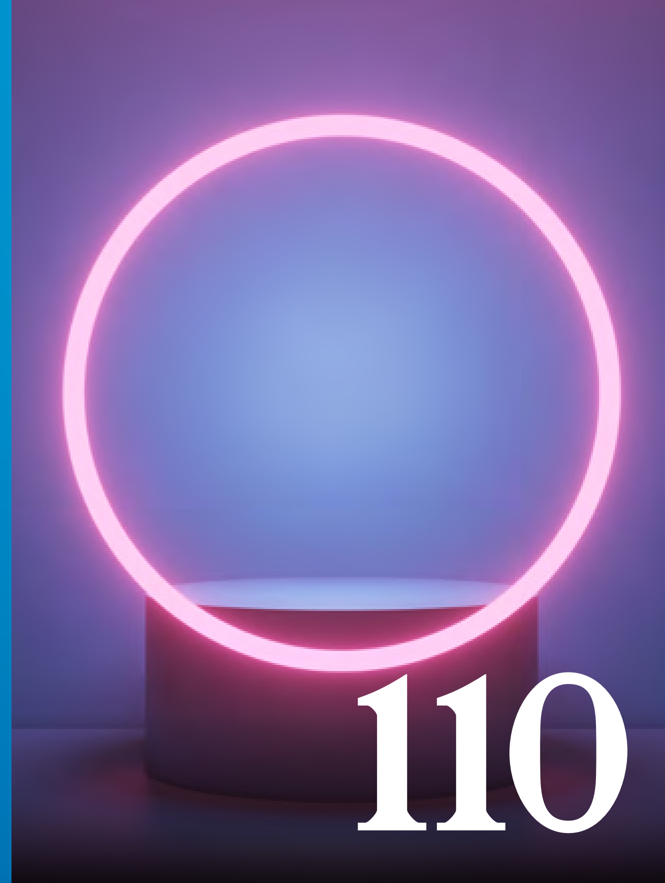
Overarching opportunities for businesses

Sectors in focus

Insights for practitioners on unlocking value

Growth imperatives

Select perspectives on growing with technology, sustainability, and inclusivity



Spotlight

India’s leading value creators speak about the journey from ambition to impact

Introduction

Back in 1992, when seven senior consultants landed in Mumbai to set up McKinsey’s India operations, it was a transformative period for the country. With liberalization reforms reshaping the business environment, domestic companies were reassessing their strategy and the path ahead, while international firms were evaluating the potential to expand their presence in India. Consulting was still a nascent concept in this part of the world.

The conviction that brought McKinsey to India to help address our clients’ unmet needs has only deepened over time. The country has emerged as a global economic powerhouse, with substantial possibilities ahead. The government envisions that by 2047, when India celebrates a centenary of independence, it could become a $30 trillion economy, with per capita income growing eight-fold to $18,000,[1] supported by the creation of millions of new jobs and significant investments in green energy and infrastructure. This vision is rooted in several tailwinds, including government initiatives to boost manufacturing and exports; infrastructure investments to increase productivity; a flourishing digital and tech economy; and a rapidly expanding middle class and workforce creating a thriving consumer market.

Estimates show the country is on the right track. By 2030, it is expected to become the world’s third-largest economy. Recent research published by the India practice in collaboration with the McKinsey Global Institute identified 18 high-growth, dynamic arenas that could generate up to $2 trillion in revenue for India by that time. The global reassessment of trade partnerships could pave the way for new trade corridors, stronger alliances, and fresh business opportunities.

To seize these possibilities, more work needs to be done. Private and public stakeholders can increase investments in higher-productivity sectors (for example, advanced manufacturing, construction, and AI infrastructure) that could create more jobs. They can raise their competitiveness in high-potential sectors (for example, electronics and capital goods) and develop new market-based growth models in areas like next-generation financial services and automation of work. Leaders need to continue investing time and resources to transition their organization’s AI efforts from the experimentation or pilot phase to a more widespread adoption of agentic AI systems.

In a geopolitically fragmented world, it is crucial that investors continue seeing India as a place that provides a clear pathway to value creation. Improved collaboration with strategic investors could help to expand India’s network of small and medium-sized suppliers.

Companies could also make a difference to economic inclusion in India by bringing more people into the formal workforce. Over a billion Indians remain below the “empowerment line” in the country, and 90 percent of India’s workforce is informally employed. Formal employment could raise minimum living standards, enabling more Indians to acquire sufficient spending power for their essential needs.[2]

This compendium goes live as McKinsey celebrates its 100-year anniversary in 2026. Titled “India: From ambition to action”, it offers our lens on the country’s achievements, aspirations, and actions that could help realize full potential as India approaches its centenary. The selection features perspectives on geopolitics and trade; deep dives on sectors such as pharmaceuticals, automotive components, insurance, and chemicals; as well as pertinent growth themes such as the state of AI, sustainability, and women in the workforce. Notably, the issue also features snippets of conversations with some of India’s top business leaders on what it takes to create value in a disruptive world.

We hope that these themes and insights will pique your interest, inspire questions and ideas, and fuel your momentum to make brilliant moves.

Gautam Kumra
Chairman,
Asia

Rajat Dhawan
Senior Managing Partner,
India

[1] India sets ambitious target to become a US$ 30 trillion economy by 2047, Ministry of External Affairs, Government of India, July 2024.
[2] “Driving sustainable and inclusive growth in G20 economies,” McKinsey, August 25, 2023.

Facts & Figures

Structural shifts and growth tailwinds are expected to drive value-creation opportunities across Indian industries over the next decade.

~$2 trillion

Revenue that 18 growth arenas could generate in India by 2030
See page 7

$11 billion

Planned capital expenditure of the chemical industry across the chemicals value chain over the next two to three years
See page 44

Two

Out of five Fortune 2000 companies could have global centers in India by 2030
See page 26

$280 million

Size forecast for India's installed crude steel capacity (in metric tons) by 2035
See page 52

~$1.2 trillion

India's estimated gains from trade-flow shifts by 2030
See page 30

~1.4 trillion

Growth forecast for the agriculture sector by 2035
See page 59

$200 billion

Estimated size of the auto component industry by 2030
See page 41

$10 billion

Potential savings per year for the government through greater insurance penetration
See page 64

Perspectives on India's potential

Overarching opportunities for businesses

Contents page

Read the full article

Extract

India's future arenas: Engines of growth and dynamism

India, which played a limited role in the global arenas before, could now build on inherent endowments and large-scale sectors to excel in 18 high-growth, dynamic arenas—global and national—and generate up to $2 trillion in revenues by 2030.

By Bhavesh Mittal, Kevin Russell, and Rajat Dhawan with Mamta Deswal

June 2025

India is on a strong growth trajectory, with its share of global GDP rising from 1.9 percent in 2008 to 3.4 percent in 2023.[1] The Government of India is now targeting an 8 to 10 percent share of global GDP by 2040.[2] Achieving this level of growth requires a shift from incremental progress to targeted breakthroughs in sectors that hold the potential for significant growth and dynamism—what the McKinsey Global Institute defines as "arenas" (see below, "The next big arenas of competition").

The business landscape of India, like the country itself, is constantly evolving. Many companies are poised to build and harness their capabilities at this dynamic time. We explored which sectors could experience significant growth, technological advancements, and sustained investment dynamics to identify the transformative sectors for India, and 18 arenas emerged. Nine of these are global arenas where Indian companies could attain disproportionate growth through distinctly Indian capabilities. The other nine are what we define as "national" arenas, or sectors that could advance long-term strategic interests and fuel growth in a uniquely India-specific context. This mix of global and national arenas could play a pivotal role in realizing India's vision of becoming a developed economy by 2047.

Unlocking the value in these arenas will call for cross-sector collaboration, decisive action by Indian companies, and supportive policies. This article focuses on these 18 arenas for India, breaks down the opportunity in each, and offers ideas on ways Indian businesses could pursue value creation.

The arenas for India

While Indian enterprises played a relatively limited role in shaping global arenas from 2005 to 2020, they could contribute more meaningfully to the arenas of the future. A comprehensive analysis of rapidly evolving large-scale sectors and India's inherent strengths, capabilities, and strategic priorities led us to identify 18 arenas that could generate $1.7 trillion to $2 trillion in revenues for India by 2030, up from $690 billion in 2023 (Exhibit 1). They could help capture approximately 30 percent of the incremental GDP by 2040 (Exhibit 2).

[1] Analysis using World Bank data.
[2] Charan Singh, "How India can achieve rapid growth to achieve 'Viksit Bharat 2047' goal?," Business Standard, February 9, 2025.

The next big arenas of competition

The McKinsey Global Institute (MGI) defines an arena as a unique category of industries characterized by two key features: high growth and dynamism. In 2024, MGI identified 12 such arenas that had doubled revenue share and tripled their market cap between 2005 and 2020, transforming the business landscape.

Based on the characteristics of these arenas, MGI proposed 18 arenas of the future that could reshape the global economy in the next ten to 15 years (for example, e-commerce, cloud services, robotics, and shared autonomous vehicles), generating up to $48 trillion in revenues and $6 trillion in profits. Indian firms, which played a limited role in the arenas between 2005 and 2020, can play a significant role in select global and national arenas of the future.

Exhibit 1

Eighteen arenas of growth could yield $1.7 trillion to $2 trillion in revenues for India by 2030.

Revenue estimate, $ billion (range)

Global arenas	2023	2030 estimate	National arenas	2023	2030 estimate
E-commerce	60–70	240–300	Urban construction	170–190	400–490
Semiconductors	40–45	100–120	Travel and tourism	160–170	360–420
Cloud services	15–20	70–80	Auto components	70–75	160–190
Cybersecurity	30–35	65–80	Renewables with storage system	20–25	50–70
Electric vehicles and batteries	5–10	40–60	Aerospace and defense	20–25	40–50
AI software and services	5–10	40–50	Bio-to-X[1]	10–15	30–40
Space	5–10	20–30	Medical devices	10–15	25–35
Nuclear fission	2–4	10–15	Biopharma	5–10	20–25
Robotics	1–2	~3	Industrial electronics	10–15	20–25

Total revenue estimate, global and national arenas

2023: **~$690 billion** 2030 estimate: **~$1.7 trillion–$2.0 trillion**

[1] Bio-to-X refers to transforming biological feedstock into a range of high-value products such as bio-building blocks, bio-cosmetics, bio-food additives, bio-nutraceuticals, and bio-flavors and fragrances

Source: IHS; Oxford Economics; McKinsey analysis

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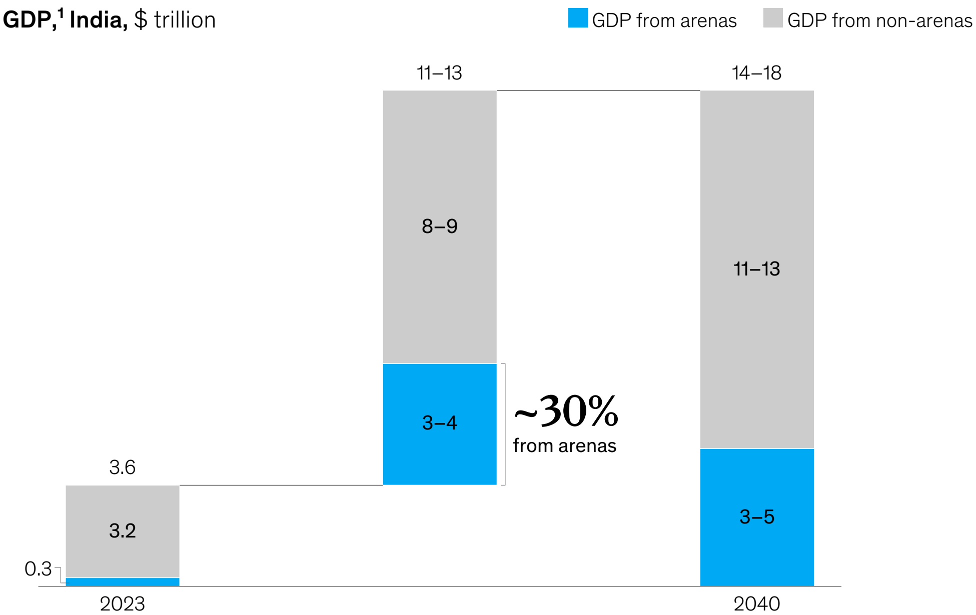
Exhibit 2

Arenas could help capture approximately 30 percent of India's incremental GDP by 2040 to support its goal of becoming a developed economy by 2047.

Projected GDP,[1] India, $ trillion



Note: Figures may not sum, because of rounding.
[1]Calculated by extrapolating revenues until 2040, converted into GDP using a revenue-to-GDP conversion factor based on historic data.
Source: World Bank; McKinsey analysis

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Driving the transformation from sectors to arenas

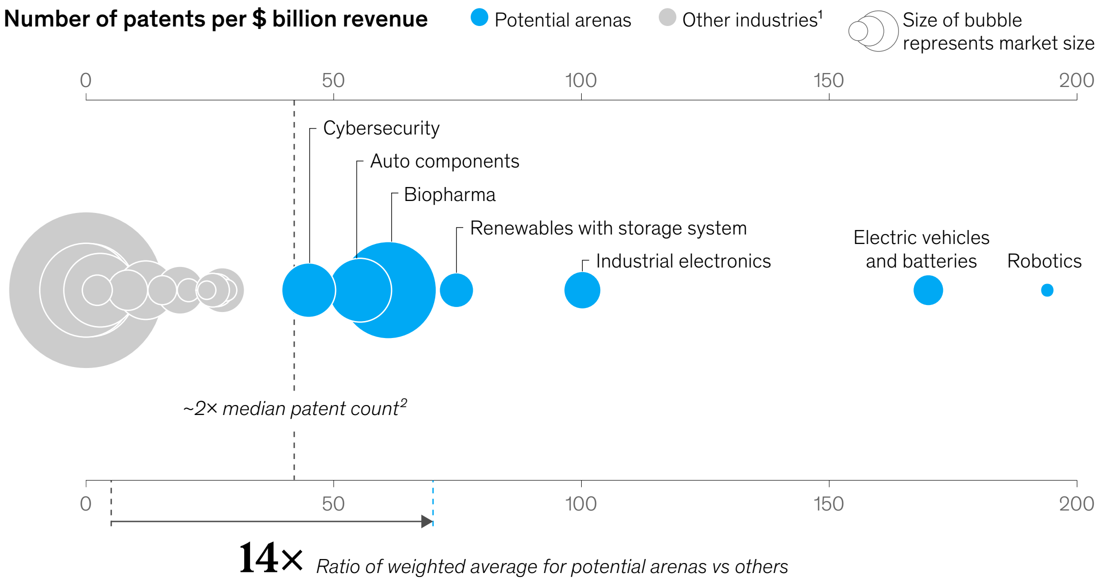
What could transform a sector into an arena? The potential for transformation comes from three drivers: step changes in technology or business models, high and sustained investment dynamics, and cultivation of a large and growing addressable market.

Substantial innovation unlocks new performance curves in a sector, prompting technology or business model step changes, often indicated by increased patent activity or R&D activity. We selected sectors where patent activity exceeded twice the median (Exhibit 3) or where R&D investment outpaced the national average by a factor of two (Exhibit 4).

The 18 arenas identified could help capture ~30 percent of the incremental GDP by 2040.

Exhibit 3

Technological step change: Potential arenas exhibit significant patent activity, indicating innovation potential.



Note: Opportunity mapped to the closest proxy sector, with construction taken as proxy for modular construction and urban construction, renewable energy as proxy for renewable and storage system, and drugs for obesity included in biopharma. In India, while AI and software itself aren't directly patentable under Section 3(k) of the Patents Act, inventions incorporating software can be patented. Construction removed for visualization is a part of deprioritized activities.
[1]"Other industries" includes (in decreasing order of number of patents per $ billion revenue) nuclear fission, bio-to-X, AI software and services, space, streaming video, video games/interactive games, cloud services, water infrastructure, consumer electronics, medical devices, semiconductors, digital advertisements, payments, aerospace and defense, information-enabled business services, urban construction, e-commerce, future air mobility, and shared autonomous vehicles.
[2]Threshold to consider an industry a potential arena.
Source: Analysis using ~55,000+ patents granted by Indian Patent Office in 2024, Indian Patent Office

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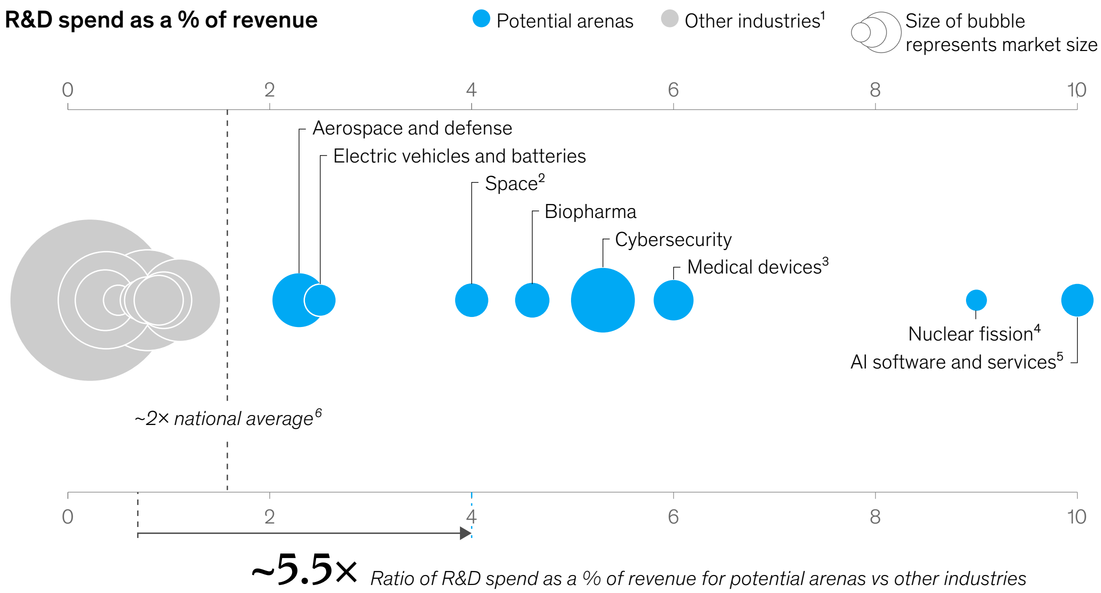
Sustained high investments in sectors increase output and enhance production functions. To identify investment momentum within sectors, we looked for signals of investor confidence such as sustained private-equity and venture capital inflows exceeding $1 billion or growth in investments surpassing a 15 percent CAGR. We also tracked public-sector commitments, where government investments in capital infrastructure or innovation indicated potential strategic bets on the sector's future. Finally, we paid close attention to the moves of India's large conglomerates, on the premise that substantial long-term investments by industry leaders signal their interest and belief in the sector's transformative potential.

Exhibit 4

Technological step change: Potential arenas see disproportionate R&D investments in India.



[1]"Others industries" includes (in decreasing order of R&D spend as a % of revenue) urban construction (including modular construction), consumer electronics, e-commerce, water infrastructure, industrial electronics, auto components (including auto manufacturers and auto components manufacturers), bio-to-X, cloud services, renewables with storage system, and information-enabled business services. [2]Assumed 20% R&D expense of the allocated ~$1.5 billion to the Department of Space in budget 2025. [3]Global R&D spends taken as a proxy for medical devices. [4]The government has allocated $2.5 billion for R&D till 2047, considered prorated investment in R&D in the current year. [5]R&D is 10–15% of fundings as net revenues are negligible; R&D is for training costs of large language models and will reduce in 3–4 years. [6]Threshold to consider an industry a potential arena. This figure is based on the national average R&D spend as a % of revenue across all industries, including those not represented in this chart. The chart itself includes only a select set of industries and may have a different weighted average than the national average.
Source: Prowess Data; Indian Institute of Corporate Affairs

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Growing sectors where demand outstrips the rest of the economy could be unlocked through technological or business model step changes and sustained high investments. These sectors could also displace the share of an existing large market with a superior product or service. To pinpoint these, we focused on sectors where scale met momentum: market sizes exceeding $3 billion and growing at a CAGR of over 12 percent, that are sizable and accelerating, indicating their current relevance and their potential.

Eighteen sectors matched the three drivers of arena creation, standing out as engines of growth and dynamism. These emerge as our 18 arenas that can shape greater economic growth for India.

Please view the **full article** to read the sector-specific segments.

The four archetypes of opportunity for India

These 18 arenas could shape and accelerate India's journey toward global economic leadership. Each arena represents a certain strategic position for India, contingent upon the extent of India's capabilities and the market focus on either India alone or on broader world markets (Exhibit 5). This position determines the nature or broad archetype of the opportunity ahead:

1. *Build for India.* Players in nascent-capability arenas focused largely on India can lay down foundational blocks on which to build national growth. Enhancing capabilities in semiconductors, industrial electronics, robotics, and nuclear fission could help India to achieve self-reliance.

2. *Pursue accelerated scale up.* In arenas combining a primarily national focus with strong capabilities, players can pursue accelerated scale-up in India's long-term strategic priorities in renewables with storage, e-commerce, cloud services, travel and tourism, and urban construction.

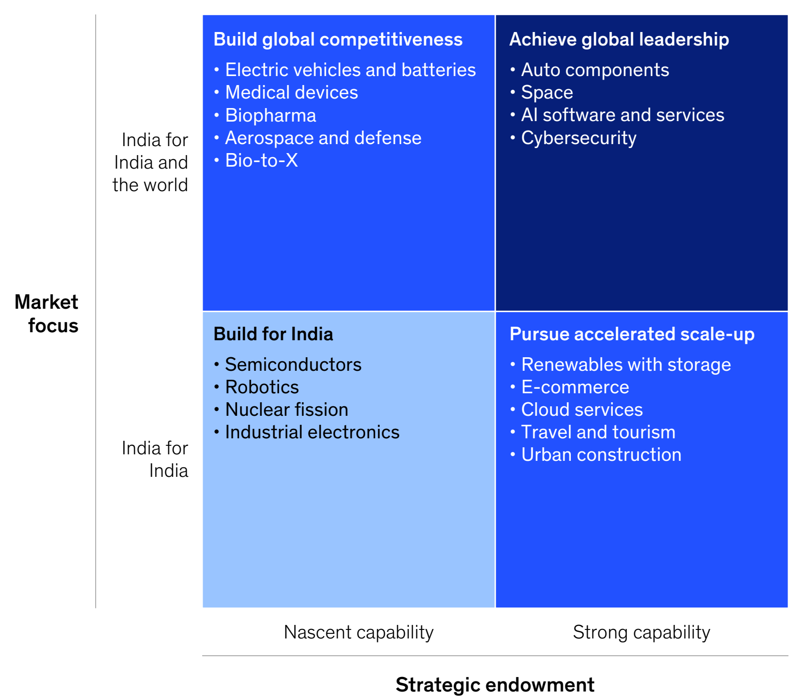
3. *Build global competitiveness.* In arenas combining a broad market focus with somewhat nascent capability, players can strengthen emerging capabilities to target Indian and world markets in electric vehicles and batteries, medical devices, biopharma, aerospace and defense, and bio-to-x.

4. *Achieve global leadership.* Where a broad market focus is combined with relatively strong capability, players would use distinctive capabilities to capture a substantial portion of Indian and global markets for auto components, space, AI software and services, and cybersecurity.

Exhibit 5

The 18 potential arenas for India provide four archetypes of opportunities.

Archetypes of opportunities



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A playbook for India to capture value in the arenas

India must build on its strong fundamentals, young population, and ongoing structural reforms to sustain GDP growth of 8.0 to 8.5 percent over the next two decades. Indian companies could shape a dynamic market and unlock the full potential of the 18 arenas through adopting a differentiated playbook for each archetype of opportunity. Some potential ideas of what that playbook could look like appear below:

— *Build for India* by providing domestic players with patient capital, export-linked incentives, and long-term demand visibility. Modular and open ecosystems can facilitate collaboration among design and manufacturing players in component-heavy sectors such as electronics and power. Applied R&D to address India-specific challenges, through industry-academia consortia, could be incentivized by linking outcomes to commercialization and intellectual-property.

— *Pursue accelerated scale-up* by investing in infrastructure across logistics, power, and digital connectivity to unlock demand and improve unit economics in sectors like e-commerce, renewables, and tourism. Bundled, arena-specific fast-track mechanisms—such as license clearances, land, and infrastructure access—could accelerate scale. These strategies could be even more effective through the mobilization of institutional and retail capital through real-estate investment trusts, infrastructure investment trusts, and IPO pipelines for high-growth infrastructure and technology projects.

— *Build global competitiveness* by establishing national-scale innovation platforms in emerging sectors such as EVs, biopharma, and aerospace, and by anchoring public–private programs using pooled capital, sandbox regulations, and targeted IP incentives. The strategic focus could extend beyond FDIs to attract frontier partnerships and sovereign venture funds by creating joint labs and co-development models driven by global expertise. Government procurement policies designed to anchor demand and stimulate domestic industrial depth—for example, defense offsets, public health systems, and battery standards—could help accelerate the growth of these sectors.

— *Achieve global leadership* by fostering dominant IP-led models and offering targeted incentives for product development and export enablement. Investing in digital infrastructure, engaging with global standard-setting bodies to shape industry-wide frameworks, and enhancing workforce skills (specific to relevant arenas) in tier-two and tier-three cities could contribute to expanded capacity, improved delivery, and enhanced resilience.

India is at a pivotal juncture in its economic development, with the potential to capture 8 to 10 percent of global GDP by 2040. Achieving this potential will demand a strategic focus on the next arenas of growth, both global and national. Although the precise trajectories of these arenas are difficult to forecast, breakthroughs in these arenas could collectively propel India toward its aspiration of global economic leadership.

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This report was edited by Anamika Mukharji, a senior editor in the Mumbai office.

← Section overview

Read the full article

India: The promise and possibilities for global companies

India often attracts multinationals seeking new business opportunities. What strategies will help them thrive in this compelling but unique market?

This article is a collaborative effort by Bob Sternfels, Rajat Dhawan, Shivanshu Gupta, and Soumyadeep Ganguly, with Jayati Shah, representing views from McKinsey's Advanced Industries group.

April 2025

India is drawing attention as a global business hub. With a strong talent base, a large pool of consumers, and continuously improving infrastructure, the country offers many opportunities for multinational companies over the next decade. According to one estimate, India could gain up to $0.8 trillion to $1.2 trillion from trade-flow shifts by 2030 and boost the country's GDP share for manufacturing from 16 percent in 2023 to 25 percent by 2030.[1]

As with any new venture, companies that expand into India may encounter unexpected challenges. While the country's government has strong pro-business policies, companies may need to grapple with complex regulations, labor strikes, and red tape. India's vast consumer base, with its huge variations in product preferences and spending power, could also present hurdles for marketing and sales. Some multinational companies have thrived in India despite these obstacles, but others have reduced, or even ceased, local operations.

What factors distinguish winning multinational companies from the rest of the pack? And with the landscape changing so quickly, what is the best time for companies to expand operations within India? To answer these questions, we first reviewed the Indian market's unique characteristics and then identified five factors that are common to winning companies: taking a long-term view, empowering the right leaders, customizing products to suit local tastes, localizing operations, and moving fast.

The benefits of India—and the new rush to profit

Although some business leaders may simply think of India as a site for low-cost operations, the country has more to offer. Consider a few other advantages, many of which are recent developments:

— *A growing wellspring of innovation and talent.* India is home to about one-third of the world's STEM graduates, and these employees are creating innovations that enhance electric vehicles (EVs), pharmaceuticals, and other products. The high number of STEM employees makes India a leading contender when multinationals are looking for programmers or considering sites for global IT capability centers. Overall, engineering research and development sourcing from India could increase in value from about $44 billion to $45 billion today to over $130 billion to $170 billion by 2030.[2]

— *Greater appeal as a manufacturing site.* India has increased its share of global exports in multiple categories. In the electronics sector, for example, the value of Indian exports to the United States alone is now about $10 billion; analysts expect this to rise to $80 billion by 2030.[3] For global exports, the value could reach about $1 trillion by 2030.

— *Historically low labor costs.* India has traditionally offered competitive labor costs. Even if wages increase, Indian labor costs are likely to remain competitive because workforce participation and productivity are increasing.

[1] Dipak Mondal, "Make in India fails to lift manufacturing share in GDP in 10 yrs," *New Indian Express*, September 25, 2024.
[2] Sameer Ranjan Bakshi, "India's share in global ER&D sourcing market to reach $130-170 billion by FY30," *Financial Express*, October 13, 2023.
[3] S Ronendra Singh, "US reciprocal tariffs may impact Indian electronics manufacturing," *Hindu Businessline*, March 09, 2025.

— *Large-scale infrastructure improvements.* India is undertaking many infrastructure improvements and industrial projects, such as port upgrades, with target expenditures of $1.8 trillion by 2025.[4] These infrastructure improvements can enhance productivity and lower supply chain and utility costs.

— *An increasingly pro-business environment.* The Indian government has recently reviewed its business-related laws and is enacting pro-business policies.[5] For instance, the National Manufacturing Mission is designed to improve five critical areas: the ease and expense of doing business, workforce development, technology availability, production of quality products, and the environment for micro-, small, and medium-size enterprises.[6] Other government programs are aimed at specific industries, including one that subsidizes 50 percent of capital expenditures for semiconductor companies that build plants in India; individual states may provide additional subsidies on top of this.[7]

— *A large consumer base.* With approximately 1.4 billion residents, India has surpassed China to become the world's most populous nation[8] and its GDP is growing. Equally important, the vast pool of Indian consumers now has greater spending power, with average monthly household consumption rising from $271 in 2012 to $705 in 2023.

— *A vibrant and growing digital economy.* The number of smartphone users in India surpassed one billion in 2024,[9] and the number of internet users is expected to surpass 900 million in 2025.[10] The country's digitally connected consumers now account for over 40 percent of global internet transactions.[11] Across sectors, the value of digital commerce through Open Network for Digital Commerce, a government-sponsored platform that connects online buyers with businesses, could rise from between $60 billion and $70 billion in 2022 to between $320 billion and $340 billion by 2030—about a fivefold increase (exhibit).

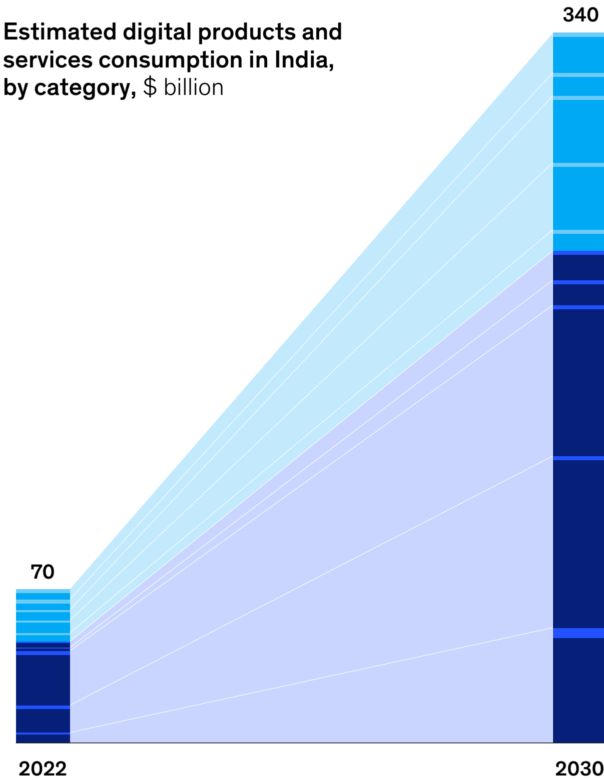
Engineering research and development sourcing from India could increase in value from about $44 billion to $45 billion today to over $130 billion to $170 billion by 2030.

[4] "India to launch $1.8 trillion national infrastructure plan to help generate jobs: PM Modi," *Straits Times*, August 15, 2021.
[5] Kirtika Suneja, "India picks 300 law points and sections to likely decriminalise for next manufacturing push," *Economic Times*, September 25, 2024.
[6] Ministry of Finance, "'National Manufacturing Mission' to cover small, medium and large industries for furthering 'Make in India' announced in Union Budget 2025-26," Press Information Bureau, February 1, 2025.
[7] Anishaa Kumar, "Budget 2024: Semiconductor industry upbeat on govt push for self-sufficience," Money Control, July 18, 2024; Ministry of Electronics & IT, "Government of India taking steps to encourage domestic manufacturing of semiconductors & promote country's digital transformation and self-reliance," Press Information Bureau, July 31, 2024.
[8] "Countries in the world by population (2025)," Worldometers.info, accessed March 22, 2025.
[9] Shangliao Sun, "Smartphone users in India 2010-2040," Statista, September 18, 2023.
[10] Tech desk, "India's internet users to surpass 900 million in 2025, regional content driving growth: IAMAI-Kantar report," *The Indian Express*, January 17, 2025.
[11] "India's digital transactions revolution," Google Arts & Culture, accessed March 22, 2025.

Exhibit

The value of transactions conducted through India's Open Network for Digital Commerce is projected to rise.

Estimated digital products and services consumption in India, by category, $ billion



		2022	2030
Services	Entertainment[1]	3–5	17–19
	Mobility	3–5	9–11
	Education		30–32
	Food and beverages	5–6	30–32
	Hospitality[2]	3–4	8–10
Products	Other retail[3]	2–3	12–14
	Pharmaceuticals	1.0–1.5	10–12
	Electronics and durables	24–26	70–72
	Fashion and lifestyle	11–13	80–82
	Grocery	4–5	50–55

[1]Includes gaming, over-the-top services, film and TV—but does not include B2B advertising spending estimated at $11 billion in FY 2021 and $21 billion in FY 2026.
[2]Includes hotels and homestays.
[3]Includes books and general merchandise.

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Success stories

Global interest in India is already growing. From 2021 to 2023, 984 international companies registered to operate in India, up from 320 between 2019 and 2021. There are now over 1,500 global capability centers in the country, about 60 percent of which focus on IT, business process management, or engineering, research, and development.[12] Analysts predict that companies will create over 250 new global capability centers in India over the next three to five years.[13] Many companies are also establishing data centers in India to gain access to skilled IT workers.

Although multinationals across industries are present in India, some sectors are more established than others. Consider the Indian pharmaceutical industry. Although this sector accounted for only about 6 percent of India's global exports in 2022, the country is the main supplier of active ingredients and small-molecule drugs.[14] India is also the leading provider of generic drugs, representing about 20 percent of all global exports by volume.[15]

[12]Annapurna Roy, "The rise of the GCC ecosystem in India," *Economic Times*, June 19, 2024.
[13]Cision PR Newswire. "India's global capability center (GCC) sector: A strategic asset for global companies, study finds," September 9, 2024.
[14]Prashant Prabhakar Deshpande, "A focus on progress of pharmaceutical industry of India," *Times of India*, February 10, 2024.
[15]Ankit Agrawal, "Pharmaceutical sector spotlight: Driving innovation in India," Invest India, November 20, 2023.

Recognizing the country's value, one major pharmaceutical company recently decided to build a global capability center in India.

Companies in other industries, such as electronics and high tech, recently made some major investments in India to expand their presence. In 2021, for instance, a major smartphone manufacturer announced that it wanted to locate most of its overseas manufacturing in India and bring the share of smartphones manufactured there to about 30 percent. Similarly, a leading global semiconductor decided to diversify its geographic footprint by building its first packaging, assembly, and testing facility in India. In doing so, the company will benefit from a 70 percent capital subsidy from federal and state governments combined.

Navigating uncertainty

Although it may be tempting to focus on India's benefits, companies cannot overlook India-specific challenges, including the following:

— *A highly diverse customer base and complex macroeconomic fluctuations.* The cultural, economic, and linguistic diversity within India surpasses that seen in many countries. Although spending power is growing in most segments, more than 95 percent of consumers have $2,000 or less in financial assets, putting many expensive products out of their reach. Consumer spending and demand can also take rapid and unexpected twists that could affect sales. For instance, the recent increase in consumer spending power is greatest among rural residents and has occurred because food prices dropped. Spending power has fallen for urban consumers, and disposable income is stagnating for the middle class.[16]

— *Global trade shifts and geopolitical uncertainties.* Trade policies and tariffs are in flux. For instance, the US government recently announced that it would place reciprocal tariffs on many nations, including India.[17]

— *Long lead times for payoffs.* Companies are unlikely to see quick wins in India because it can take time to build their operations and overcome challenges. With semiconductors, for instance, the government has been providing government subsidies for about a decade, but positive effects are unlikely to occur before 2026 or 2027.

— *Overdependence on government spending.* Over the past five years, public capital expenditures have been the driving force behind most business growth. Interest from the private sector is rising, but companies must increase their investment and remain committed to stimulating greater manufacturing growth.

— *Potential difficulties in scaling.* To meet demand, companies may need to manufacture products on a much larger scale than they do today. But many suppliers in India are small to medium-size enterprises that are unable to deliver the quantity of components required for large-scale manufacturing. Companies may also find some gaps in the local supply chain. Such problems are particularly common in industries that have a limited presence in India.

[16]Shritama Bose, "Cracks in India's consumption story run deep," Reuters, January 16, 2025.
[17]Lazaro Gamio, "Trump tariffs: See which countries have the highest rates," *New York Times*, April 2, 2025.

Although the challenges may seem daunting, some multinationals across sectors have overcome the obstacles and are thriving in India.

Winning in India

Although the challenges may seem daunting, some multinationals across sectors have overcome the obstacles and are thriving in India. Our analysis of the winners reveals that they tend to share the following five approaches to business.

Taking a long-term view and building resilience

Companies that expand operations, manufacturing, sourcing, or other activities in India should focus on long-term gains, rather than quick wins, and anticipate India-specific challenges that might arise in coming years. For instance, companies should emphasize product quality, consumer satisfaction, and innovation from the outset to maximize sales and win market share. This approach could help keep them profitable even if the government decreases subsidies or discontinues certain pro-business policies.

Empowering leaders with local knowledge and experience

Having strong local leaders can make the difference between success and failure in India. These leaders—especially the office head—must have direct experience with the local market's quirks and nuances, including regulations, cultural issues, and the economic landscape.

Global headquarters should vet local leaders during the hiring process, as it would with any key staff, and ensure that they share the company's global vision. But local leaders must also have the autonomy to make many critical decisions quickly, without approval from central leadership. If a labor strike or another unexpected disruption occurs, companies that do not pivot quickly may fall behind more agile competitors.

To boost the local leadership pipeline, multinationals can create leadership programs to develop current employees; offering highly competitive salaries and benefits can also give them a strong reputation that helps attract the best employees within India.

Customizing products and pricing for India

There are multiple "Indias within India" because of the country's diverse population and geographic spread. Companies that do not conduct an extremely detailed customer segmentation might fail to develop products with wide appeal, or they may miss some of the biggest growth opportunities.

Hindustan Unilever illustrates how companies can satisfy many different groups within India. Much of the company's success hinges on a consumer model that examines the needs, characteristics, and spending capacity of 15 segments. During the COVID-19 pandemic, for instance, the company used the model to capture local data and insights about hand sanitizers, including the features that consumers value most. Hindustan Unilever then launched 17 different Lifebuoy hand sanitizer variants in 100 days.[18]

When formulating a product strategy for India, pricing deserves particular attention because buying power varies greatly by segment. Dynamic pricing is also critical because of the market's frequent economic fluctuations.

Localizing operations in India

Companies can also benefit from localizing other operations in India. Three elements are particularly important:

— *Investment in local manufacturing.* Local plants can help businesses reduce costs and gain access to talented employees. Many companies have recently expanded their manufacturing presence in India, including one that is building a plant to produce batteries. In some cases, the new plants may become a hub for global exports.

— *Development of a local supply chain ecosystem.* Multinationals could seek Indian partners to source raw materials and components. In addition to shortening transport times and decreasing costs, these partnerships can streamline inventory management, allowing companies to restock parts more quickly if demand rises or unexpected shortages occur. Developing a supply chain ecosystem may take time because many suppliers are small to medium-size enterprises that may be unable to fulfill large orders in the desired time frame.

— *Collaboration to promote innovation and training.* Companies may benefit from partnerships with Indian research institutions, start-ups, and other organizations as they seek to develop innovative products for local and global markets. In some cases, they might co-invest in training programs to equip current and potential employees with critical skills.

Localizing operations within India will not simply help companies capture the domestic market; it could also strengthen their global share by increasing cost efficiencies that could translate into lower product prices.

Moving fast to capture opportunities and scale manufacturing

Moving quickly makes sense because early entrants or companies that have built a large presence in the market may gain an edge with consumers, have their choice of suppliers, or enjoy other advantages. That said, even the most ambitious companies should not proceed until they have developed clear goals and KPIs.

Companies must also ensure close communication between the Indian team and headquarters, possibly by establishing cross-functional teams that include staff from both locations. Together, team members can review metrics, including those related to cost and quality, and make quick adjustments as issues arise.

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[18] "Winning in many Indias: Lessons in growth from Hindustan Unilever," Unilever, August 31, 2021.

The most successful companies establish ambitious goals for scaling their Indian operations, with some planning to increase output by tenfold or more. Greater automation, sophisticated logistics, and stringent quality assurance management systems are just a few of the elements required for large-scale operations, and the best companies will investigate these solutions early on.

The road map to success in India may sometimes seem fraught with challenges, but companies that take a long-term view and persevere could simultaneously improve costs, reduce risks, and gain a greater share in one of the world's most rapidly growing markets. In the best case, India will not simply be a new location for manufacturing but a source of innovation and new product development. Although much uncertainty lies ahead, companies that establish or expand their presence in India could create a new growth engine.

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This article was edited by Eileen Hannigan, a senior editor in the Boston office.

Section overview

Read the full article

Wanted: A new economic playbook

Here is how India can reach consistent 8 to 9 percent real GDP growth required to become developed by 2047.

By Rajat Dhawan

The Indian economy is in a good place, poised to overtake Japan as the world's fourth largest. India has been a top performer in GDP and export growth for the past decade and is well positioned to be a major player in crucial industries such as renewable energy, electric vehicles (EVs), semiconductors, and defense. The country is already home to almost 2,000 global capability centers (GCCs), serving the tech and operational needs of major companies. It is a global innovation leader, accounting for more than one out of ten "unicorns"—start-ups that achieve a $1 billion valuation.

And yet there is room for improvement. The Indian economy has the potential to grow 8 to 9 percent a year for the next generation. That is a level India has reached a few times in the past but is higher than the average of 6 percent recorded since 2015. With 8.5 percent growth, per capita income would grow almost sixfold by 2047, to the equivalent of more than $15,000 a year. That would improve the quality of life for hundreds of millions of people.

For that to happen, India cannot just keep doing what it has been doing—successful as that has been. The country needs a new playbook. This playbook will need to adapt as conditions change; that said, it should include three strategies.

Encourage greater investment formation with a shift in its mix. Capital accumulation is necessary to create jobs, technological progress, and economic growth. In the public sector, the government has invested about $1.4 trillion over the past decade to create infrastructure such as roads, railways, ports, and airports. The new playbook for government is to diversify its approach and promote the creation of economically dense infrastructure such as brownfield or greenfield cities and economic clusters.

In the private sector, corporate investment has been stable at 12 to 13 percent of GDP. What has changed is its composition, with a significant shift from debt to equity, particularly in mid- and small-cap companies. Overall, balance sheets are in better shape. Future demand signals are emerging in the form of higher capacity utilization across industries such as steel, oil refining, renewables, automotive, and chemicals; in response, corporates are getting their capital investment plans ready. With the interest rate cycle on the downswing, a blend of public equity, private capital, and debt is likely the optimal way to fuel near-term capital expenditures.

In addition, there is a need for more foreign direct investment (FDI). India's domestic savings rate is 30 percent, and that is not likely to rise. To fund growth, the economy needs to draw in capital from outside the country. With this capital also comes technology access. In recent years, however, the trend has been in the other direction—from a net of $43 billion in 2020 to $31 billion in 2023. India has already done much to make doing business easier. To attract FDI, the new playbook should offer investors a clear pathway to value creation, in the form of predictable and effective regulatory frameworks and legal structures. Only then will multinational companies be confident that they can compete against domestic players.

Foster competitiveness in manufacturing and innovation in future growth arenas. Manufacturing policy has been strongly pro-business. Examples include the formation of new special economic zones, tax reforms, and the expansion of production-linked incentives; new infrastructure has improved supply chain efficiency. The momentum is clearly positive. Led by electronics, pharmaceuticals, automotive components, and chemicals, India is on track to double manufactured-goods exports to $1 trillion by 2030. The new playbook calls for emphasizing productivity and returns on capital in high-potential sectors.

The McKinsey Global Institute (MGI) recently named 18 "arenas of competition" it considered most likely to drive outsize growth: EVs, semiconductors, shared autonomous vehicles, space, cybersecurity, e-commerce, artificial intelligence (AI), cloud, batteries, modular construction, streaming video, video games, robotics,

India today accounts for 16 percent of the global AI talent pool and 5x as many STEM graduates as the United States.

nonmedical biotech, future air mobility, obesity drugs, digital ads, and nuclear fission. MGI projects that these 18 arenas could account for up to $48 trillion in global revenues and $6 trillion in profits by 2040. By unwinding restrictive product market barriers and facilitating FDI, India could build on its strong position in some of these sectors (e-commerce, EVs). At the same time, it could work with strategic investors in others (electronics, semiconductors) to scale up and to foster the development of a network of domestic small and medium-size suppliers.

Match education and skills development to job creation. By 2047, 20 percent of the world's working-age population will live in India, and this population is increasingly skilled. India today accounts for 16 percent of the global AI talent pool and turns out five times as many STEM graduates as the United States. The country can be the talent factory for the world.

The new playbook calls for skilling that can coexist with the advances of AI applications such as agentic AI in transaction processing and call centers, humanoid AI robots in factories, and software coding copilots. Skilling in this context will require public–private cooperation in curriculum development. For example, India IT services companies are collaborating with engineering/STEM colleges to offer courses in software and AI so that their graduates are ready to succeed on the job from day one. IIT Delhi recently restructured its curriculum to promote hands-on learning, enhancing learning flexibility and aligning with global trends in AI and sustainability. Finally, as India grows and prospers, there is a need to ensure competence and availability in many vocational areas, such as nursing, construction, and the trades.

The geopolitical environment is unsettled, and some reconfiguration of global trade patterns is likely. India could benefit from these shifts, but this is not a sure thing. Indeed, it is impossible to predict how matters will play out next week, much less over the long term. And that is the point: Today's uncertainty makes it all the more important that India craft a new economic playbook that can enable the sustainable and inclusive growth we need, however the future unfolds.

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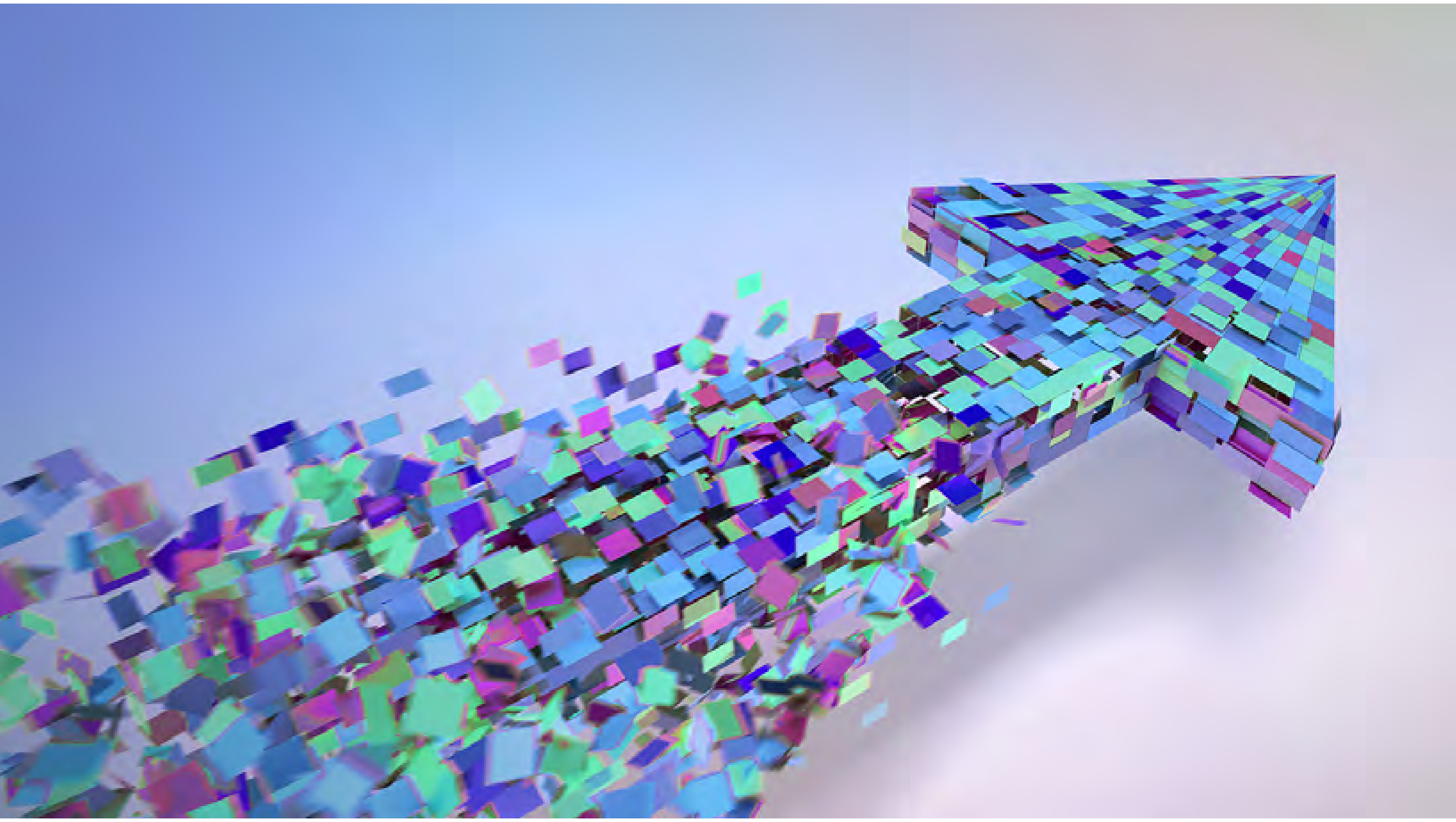
Section overview

Read the full article

The future of global centers

Centralizing business activities in global centers has transformed the efficiency of big enterprises. Next, these talent HQs have the power to become key sources of strategic competitive advantage.

By Indy Banerjee and Namrata Dubashi with Arshinder Singh and Avinash Chandra Das



May 2025

Over the past three decades, global centers have become the preferred way for big companies to perform an increasing range of core work tasks and business processes. Concentrating the organization's knowledge, talent, and capacity for specific business activities in one place provides multiple benefits: improving cost efficiency, aiding the dissemination and adoption of best practices, and ensuring every business unit has access to the resources and capabilities it needs.

The shape of global centers has changed significantly over this time. Moving from shared-service centers focused on simple transactional tasks, many have evolved to become their organization's primary resource for foundational support functions from finance to product development.

Leading global centers have achieved that shift in three phases. First, they earned the "right to play" in more and more complex business activities by demonstrating the ability to deliver high levels of service, quality, and cost efficiency. Second, they earned the "right to partner" by demonstrating the ability to help the wider enterprise develop better processes and adopt new technologies. Third, they earned to "the right to lead" by demonstrating that they can consistently deliver the best solution available.

Now leading global centers are poised to take the next evolutionary step—becoming a source of strategic competitive advantage for their enterprises by driving talent growth, customer experience, leadership, and innovation. Here's how:

The talent headquarters

Global talent shortages, particularly in areas such as digital technologies, AI, and risk management, have led many companies to extend their search for skilled professionals to high-value global locations. For instance, while the US faces a shortage of 15,000 tech roles, India boasts a surplus of over three million digitally skilled workers.[1] More than half of this talent is focused on next-generation capabilities such as AI. To put this in perspective, India already has twice the software engineering talent as the US.

One in five Fortune 2000 companies now have global centers in India, and this number is expected to double by 2030. India is increasingly becoming the second headquarters for many global enterprises, such as major investment banks and global technology firms, serving as a hub for critical functions like transaction banking and infrastructure leadership.

Apart from India, the Philippines, Latin America, and Eastern Europe have also emerged as preferred geographies for global centers. The Philippines hosts global centers for 40 Fortune 500 companies, with around 200,000 people employed in the sector. [2]Similarly, Mexico is benefiting from its proximity to the US to emerge as a nearshoring hub for services such as software development.

The owner and integrator of customer experience

Global centers are positioned to take on greater responsibility for integrating customer experience across enterprises, managing end-to-end customer journeys with consolidated ownership of operations, technology, and risk. This enables them to deliver and track real improvements in customer satisfaction. At one major shipping company, centralizing customer service and support at a single global center helped to boost the customer satisfaction score by 10 to 15 percent.

[1] 2019 Gartner Emerging Risk Report; Great Place to Work, 2020; LinkedIn.
[2] Information Technology and Business Process Association of the Philippines (IBPAP); The Philippine IT-BPM Industry Roadmap 2028.

Global centers could generate more than half of all enterprise patents in the future, up from a quarter today.

Global centers also provide the opportunity to standardize and consolidate underlying processes, laying the foundation for automation. With the right combination of talent and technology collaboration, global centers can drive transformations that may even exceed the capabilities of headquarters. Co-located advanced analytics and AI talent can help integrate innovations such as embedded AI into operations, creating a self-sustaining business case by reinvesting a share of the savings generated by automation.

The leadership incubator

High-quality global centers serve as fertile grounds for cultivating the next generation of global leaders. As talent pools mature, we expect that 10 to 20 percent of global enterprise leaders will be based in these locations, making global centers platform hubs for global leadership. Many leaders in these centers are already taking on enterprise-wide roles, and early adopters in industries such as consumer goods have established global mobility programs to support leadership development.

The innovation epicenter

Global centers are becoming launch pads for enterprise innovation, particularly in specialized areas such as risk analytics. McKinsey estimates that these centers could generate more than half of all enterprise patents in the future, up from a quarter today. Top-quartile centers are also partnering with start-ups, particularly in regions like India—which has the world's third-largest start-up ecosystem—to incubate innovation capabilities such as building customized large language models (LLMs) for enterprises.

Are global centers ready?

While it is true that top-performing global centers could become a "second headquarters" for the enterprise, the next evolutionary step is not a given. As in the past, global centers must earn the trust of their organizations if they are to take on these new roles. There are signs that many are not ready. A McKinsey survey of seven global center CEOs[3] indicates four key challenges facing many of these organizations:

1. *Mindset and leadership.* Many global center leaders have yet to embrace the broader transformative potential of their roles. Fewer than 20 percent of the CEOs in our survey believe their primary responsibility is to lead transformation or turnaround efforts. Moreover, 60 percent of them feel their top leadership team needs significant mindset changes to achieve higher aspirations.

2. *Talent attraction and retention.* Global centers are struggling to be seen as innovation hubs by the talent they seek to attract. There is wide variation in employee expectations and experiences across centers, with bottom-quartile facilities reporting seven times lower employee satisfaction than top-quartile centers. Across all centers, frontline employees are notably less satisfied than their senior leadership.

3. *Balancing growth and continuous improvement.* As inflation erodes their traditional cost advantages, global centers must balance innovation and future growth with continuous productivity improvement to provide ongoing value to their organizations.

[3] Data collected October–November 2023, n = 7.

4. *Leveraging external partnerships.* Less than 20 percent of surveyed CEOs feel adequately prepared for significant external disruptions, yet few are developing the external relationships that could help them navigate shocks and market shifts. Many global centers still rely on internal resources alone, with only 30 percent of leaders spending time cultivating external partnerships that could drive innovation and efficiency.

Building the global center of the future

To overcome these challenges and build the next generation of global centers, enterprises need to focus on four key areas:

Redefine the North Star and secure an executive mandate. Global centers must redefine their long-term aspirations in alignment with enterprise-wide goals. These ambitions should reflect the priorities of all stakeholders, including customers, shareholders, and employees, and be backed by sponsorship from the enterprise's executive committee.

Establish leadership academies. Global centers need systematic, deliberate training programs to create the next generation of enterprise leaders. Shifts in leadership mindsets and skill sets are needed to transform regional leaders into global ones, capable of navigating complex, boundary-crossing partnerships and leading through ambiguity. For future leaders, the emphasis should shift from operational to strategic leadership, fostering agility and ambition.

Enhance employee experience. Global centers should take a scientific approach to improving employee experience, focusing on key moments in the employee journey such as onboarding, training, and performance management. By identifying pain points, developing flexible work policies, and focusing on employee well-being, global centers can improve retention and attract top talent.

Build an innovation ecosystem. Leading global centers will increasingly rely on partnerships with vendors and start-ups to drive innovation. This requires robust innovation processes that prioritize use cases with material business impact, efficient execution of these projects, and scalable models for replication across business units. A structured approach to innovation funding, like venture capital methods, will ensure that the best ideas receive adequate investment.

Global enterprises should seize the opportunity to transform their operating models by evolving their global centers into high-value talent hubs. These next-generation hubs will provide a critical lever to improve customer experience, organizational agility, speed to market, and financial performance. To shape this next-generation global operating model, enterprise and global center leaders must be prepared to navigate the complexities and bring a bold leadership mindset to drive both innovation and excellence. The time to act is now.

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Section overview

Read the full article

Extract

A new trade paradigm: How shifts in trade corridors could affect business

Trade routes face high variability in growth under different scenarios, with one-third of global trade potentially exposed to volatility by 2035.

This article is a collaborative effort by Jeongmin Seong, Olivia White, Shivanshu Gupta, Asutosh Padhi, Brajesh Chhibber, Jeffrey Condon, and Tiago Devesa, representing views from the Geopolitics Practice, McKinsey Global Institute, and the Strategy & Corporate Finance Practice.

June 2025

At a glance

- **The global trade system is in flux.** Since 2017, economies have traded less with geopolitically distant partners. Recent announcements on tariffs, trade, and industrial policy have deepened uncertainty.

- **Trade will grow by $12 trillion by 2035 in a baseline scenario.** The trade increase would boost today's global trade value by about 35 percent, to $45 trillion. In a diversification scenario (in which companies seek new sources of supply), about $1 trillion of that growth might not be realized. In a fragmentation scenario (in which geopolitically distant economies trade less), about $3 trillion of it could be lost.

- **Depending on the scenario, over 30 percent of global trade in 2035 could swing from one trade corridor to another.** That swing is the sum of the differences between the highest and lowest corridor-level values across the scenarios we examine. Fragmentation, pushed by heightened tariff levels, could drive the largest shifts, especially in critical sectors.

- **Trade corridors between emerging economies could be among the safest bets.** Of today's 50 largest corridors, 16 would grow strongly, even in a fragmentation scenario, while nine corridors—primarily linking advanced economies to China and Russia—would shrink sharply. The rest fall somewhere in the middle.

- **Trade in electronics could see the biggest shifts, followed by textiles and machinery.** These manufacturing value chains bridge geopolitically distant economies, so they're more susceptible than others to fragmentation. Resources across energy and mining could see substantial downstream effects.

- **Businesses can get ahead of changing trade dynamics.** By understanding potential scenarios and then establishing value creation theses to guide actions, firms can drive strategic and organizational changes to capture new opportunities, as well as to buffer against a downside.

Every business leader we speak with confirms that the current trade environment is the most uncertain in their lifetimes. Between momentous tariff hikes (and cuts and litigation), the return and spread of industrial policy, rising geopolitical tensions, and all the other disruptions of this digitizing, pandemic-scarred age, the system is in massive flux.

The unpredictability is forcing leaders to question long-held assumptions about where and how they operate.

Secular changes in trade patterns can be detected through shifts in trade corridors—the connections between countries to exchange goods, services, and resources. Our research finds that in a baseline scenario with tariffs at recent historical levels, global trade of goods, services, and resources would grow by about $12 trillion in real terms to $45 trillion by 2035, up from $33 trillion in 2024.

We also examine two out of many possible scenarios, both intended to bound uncertainty rather than to describe a precise future. In a fragmentation scenario, trade relationships deteriorate, and tariffs on most goods rise to 10 percent, with tariffs on critical goods traded between many advanced economies and China and Russia rising by up to 60 percent. Should that scenario unfold, about $3 trillion of the nearly $12 trillion in growth would be lost. On the other hand, in a diversification scenario, in which businesses prize resilience and diversify their suppliers, about $1 trillion in potential trade growth would be foregone.[1]

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[1] Many alternative scenarios are possible. For example, this work focuses on the effects of trade policy on trade, but does not consider other impacts such as investment, balance sheet effects, or productivity changes. For a discussion of these topics, please see our Global Balance Sheet work.

Scenario assumptions

We explore three potential scenarios for what global trade of goods, resources, and services could look like in 2035. They were developed using the Global Trade Analysis Project, a widely employed, computable general equilibrium model. For more details on modeling and limitations, see the McKinsey Global Institute (MGI) report "Geopolitics and the geometry of global trade."[1] Each of the three scenarios allows us to better understand possible dynamics in global trade by bounding uncertainty; they do not attempt the impossible task of identifying the future state of trade with any precision.

In a *baseline scenario*, we analyze how trade would continue to evolve according to economic fundamentals, such as the projected growth in population and economics of different countries, and no meaningful new trade barriers are erected relative to recent historical levels.[2] In this scenario, annual global GDP growth from 2025 to 2035 averages 2.7 percent. Annual GDP growth is taken to be 3.6 percent in China, 1.7 percent in the United States, and in Europe it ranges by country—for example, from 1.3 percent in Italy to 2.0 percent in France. These estimates reflect long-term trends in productivity and labor force growth and incorporate recent trends in private consumption, government spending, and business investment.[3]

In a *fragmentation scenario*, we analyze the result of trade frictions across countries that are geopolitically distant, using our geopolitical position metric. This scenario incorporates growth of substantial trade barriers (60 percent tariffs on critical goods and services, and 20 percent for others) between economies that sit at opposite ends of the geopolitical spectrum, notably between the advanced economies and both China and Russia.[4] It also includes more moderate friction (10 percent tariffs on critical goods and services) between emerging markets that sit in the middle of the geopolitical spectrum and both many advanced economies and China. The sort of trade frictions that this model approximates could arise through not only increasing tariffs but also controls on imports and exports—industrial-policy actions that have raised trade barriers, particularly in some of the most critical traded goods.

In a *diversification scenario*, we consider how trade might shift through widespread action by companies across sectors to diversify their sources of supply. Specifically, we consider a real-world analysis of the flow of product-level goods to sketch out the level of reconfiguration required to diversify trade in goods such that no product has a geographic import concentration greater than 3,000 as measured using the Herfindahl–Hirschman Index—a threshold generally indicating that 90 percent of imports come from just three or fewer economies. Research from MGI has shown that approximately 40 percent of global trade falls under this definition of "concentration."[5] That research also highlights two different forms of concentration. In about one-quarter of these cases, the number of suppliers across the world is truly limited—what we define as "globally concentrated." In the other three-quarters, companies have alternative sources of supply but have chosen a limited set of country partners for a range of reasons, including proximity and historical relationships, indicating "economy-specific concentration" rather than global concentration. In these products, trading relationships could be more readily diversified.

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1 "Geopolitics and the geometry of global trade," McKinsey Global Institute, January 17, 2024.
2 Specifically, trade barriers are assumed to stay constant at 2022 levels.
3 For more, see "In a moment of tariffs, can the world find balance and trust to thrive?," McKinsey, May 2, 2025, and "The future of wealth and growth hangs in the balance," McKinsey Global Institute, May 24, 2023.
4 There is no single cross-country definition of what constitutes a "critical" product. To approximate criticality of trade flows, we undertook a bottom-up assessment of product criticality for around 5,000 goods. We reviewed these for overlap with sources such as the United States' Commerce Control List and list of Advanced Technology Products, the European Union's strategic dependency review and Critical Raw Materials Act, and China's 14th Five-Year Plan, supplemented by expert consultation. These sources also informed assessment of the criticality of services trade.
5 "The complication of concentration in global trade," McKinsey Global Institute, January 12, 2023.

Strategic positions for multinationals

Bets on future trade have very different risk profiles. Some are safer than others; some carry more upside potential in a fragmentation scenario.

The complete article also speaks about cautious bets and uncertain bets, in addition to the safe bets outlined below

Safe bets

These corridors grow in all scenarios and grow faster than the average baseline global growth (2.7 percent) even in the fragmentation scenario (Exhibit 4). Safe bets include corridors connecting China to emerging economies such as the Association of Southeast Asian Nations (ASEAN) and India; intraregional trade in emerging markets; and trade between some major advanced economies, such as Europe and the United States.[2]

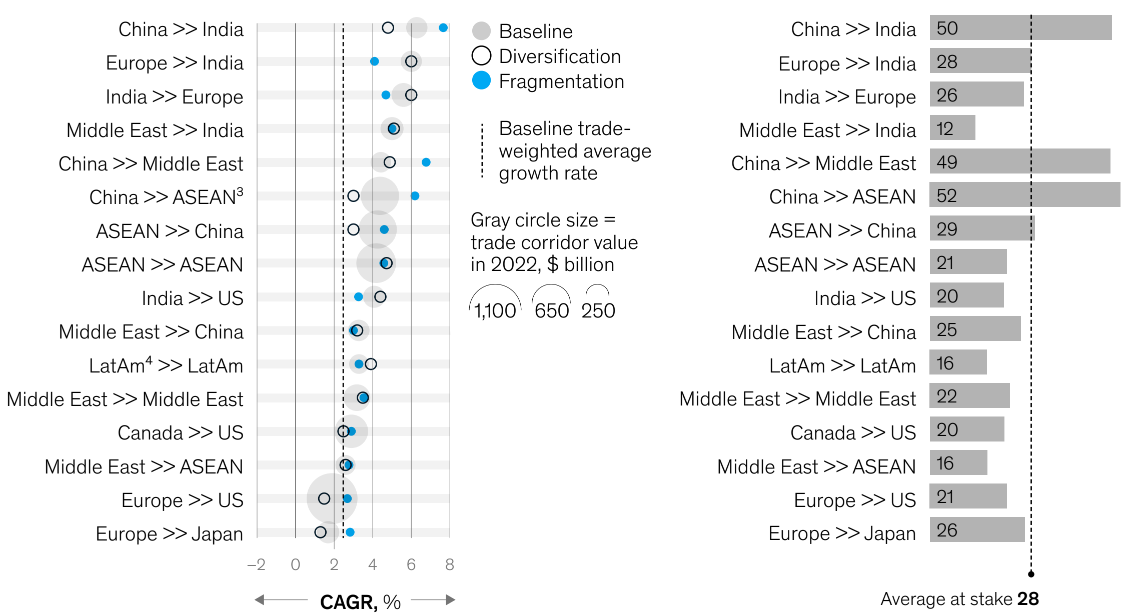
Exhibit 4

Safe bets are fast growing, even under a fragmentation scenario.

Safe-bet corridors

Growth in safe-bet trade corridors,[1] under different scenarios,[2] 2022–35, % CAGR

Trade value at stake[1] across safe-bet trade corridors, by value, % 2035 baseline trade value



[1]Trade value at stake by corridor is calculated as the difference between the highest and lowest projected 2035 trade values across scenarios (baseline, fragmentation, diversification) for each sector within the corridor. These differences are then summed across all sectors and expressed as a share of the corridor's 2035 baseline trade value. This reflects how much of a corridor's trade is exposed to scenario-driven volatility. Values can exceed 100% when many sectors within a corridor experience large swings across scenarios, since the metric reflects the total potential variation across all sector-level trades, not just the net change in aggregate corridor trade.
[2]Baseline assumes stable trade and continued global growth. Fragmentation simulates rising trade frictions, with tariffs increasing by 60% for critical goods and services and 20% for noncritical goods and services between geopolitically distant partners. Geopolitically neutral economies face moderate frictions, modeled as 10% tariffs on critical traded goods and services. Diversification assumes countries and firms proactively broaden sourcing bases to three or more suppliers, reallocating trade to reduce geographic import concentration across all sectors without explicit consideration of geopolitical position.
[3]Association of Southeast Asian Nations.
[4]Latin America.
Source: McKinsey Global Trade Model; McKinsey Global Institute analysis

McKinsey & Company

[2]The larger article focuses on the potential cautious bets and uncertain bets, in addition to this segment on safe bets.

Some noteworthy safe bets include the following:

— *Corridors connecting India and the world (for example, between India and the European Union, from India to the United States, from the Middle East to India, and from China to India).* India features prominently among the safe bets; the five corridors cited all meet the bar. They include India as either an exporter or importer with partner economies ranging from Europe and the United States to the Middle East and China. The fast growth of the Indian economy leads to expansion in many of its trade corridors, in particular those supplying advanced economies. India's rapid growth would also boost its imports of essential inputs from advanced economies, such as machinery from Europe, leading to rapid growth in the other direction. Imports from other emerging economies could also grow, albeit from a smaller base—for example, energy from the Middle East.

— *Corridors connecting China and other emerging economies (for example, between China and ASEAN and between China and the Middle East).* Corridors like those running from China to Africa, ASEAN, and the Middle East accelerate their growth in the fragmentation scenario. In this scenario, China would shift its exports away from advanced economies, from which it's geopolitically distant, and seek out new export markets. On the other hand, trade flowing from emerging economies into China would remain about the same in a fragmentation scenario as in the baseline; these corridors would retain but not increase their fast growth rate. This happens because while emerging markets would account for a bigger slice of all of China's imports in this scenario, China's slower growth rate would mean that it imports less, making the overall pie smaller.

  Today's trade landscape is compatible with a deepening of these relationships. ASEAN is growing trade with China to the point of becoming its largest trading partner—and vice versa, especially as ASEAN economies integrate into existing Chinese value chains in sectors like electronics or textiles. As for the Middle East, its trade profile is complementary to China's, which could create more opportunities for trade, since the Middle East is a large net importer of many of the manufactured goods China produces, such as electronics and textiles. But this doesn't mean strengthened economic ties would be seamless. Increased Chinese imports may be a boon for consumers but would create competitive pressure on local producers.

— *Intraregional corridors in emerging markets.* Emerging regions such as ASEAN, Latin America, and the Middle East could also see intraregional trade growing above average in all scenarios. The robust economic growth of these regions boosts trade in a baseline scenario, and that growth is resilient to fragmentation and diversification scenarios, given the absence of new trade barriers between these economies. Many of these economies are already laying some of the groundwork for increased integration. Southeast Asian nations are strengthening regional integration through initiatives such as the ASEAN Economic Community and the Regional Comprehensive Economic Partnership (RCEP)—the largest free trade agreement by GDP—which includes all of ASEAN as well as other Asian countries. Some Middle Eastern countries are likewise boosting regional supply chains across energy, construction materials, and services as part of efforts to diversify their economies.

— *Corridors from Europe to geopolitically close advanced economies (for example, from Europe to the United States and from Europe to Japan).* Flows between Europe, the United States, and advanced Asian markets all deepen in a fragmentation scenario. As rising trade barriers trim exports from China to advanced economies, these economies turn to geopolitically closer partners to plug the gaps. The fastest growing of these corridors in a fragmentation scenario run from Europe to the United States and advanced Asian partners, due to Europe's ability to replace some of China's previous exports. For example, the European bloc's manufacturing heft might help the United States substitute for imports of a range of manufactured goods from China.

Of course, growth in these corridors is contingent on the degree of trade cooperation that advanced economies exhibit. At the time of writing, while negotiations were still ongoing, the levels of discussed tariffs and barriers were still substantially lower than those between some advanced economies and China.

How businesses can get ahead of changing dynamics

When we look across business models, whether at an OEM, a distributor or retailer, a transportation or logistics operator, or an investor, the shifts in trade across corridors will require deft handling. Businesses can shape a coherent response to trade shifts by thinking through five questions:

— What is the mid-to-long-term impact on the current business due to trade shifts across corridors? How does this play out under different scenarios?

— Which trade corridors will become more important in the future view of the business, and which ones will become lower priorities?

— What is the value creation potential of these important trade corridors for the business over the mid-to-long term?

— How is the business positioned today to capture this value? What tactical and operational actions should the business take to maximize its ability to fully capture this value?

— What are the strategic and organizational changes needed to support these action plans? What are the new capabilities and organizational setups needed to navigate this tectonic change?

As just one illustration of what it takes to navigate tectonic trade shifts, consider how Micron, a US-based semiconductor company, undertook a set of multipronged actions to significantly increase its opportunities. Semiconductors are among the industries that could be most affected by geopolitical dynamics and trade shifts. The company wanted not only to defend its business but also to accelerate growth—and to do it all at pace.

The company responded quickly and decisively to the government's invitation to invest by building an ASTM-certified[3] facility in India, committing several billion dollars to the project in a country where semiconductor fabs are mostly unknown. That's a sizeable investment, of course, but the company felt confident that it had

[3] As published by ASTM International.

India features prominently among the safe bets, with trade partners ranging from Europe and the United States to the Middle East and China.

done its homework. The new fab was geopolitically nearer than other options and would also let it tap nascent domestic demand, which they estimated would grow much faster than the global average, doubling from roughly $50 billion to $100 billion by 2030.[4]

This early investment helped Micron make a move quickly when India's government offered incentives for further investment in India. Because it had immediately committed to the prime minister's initial invitation, the Indian government recognized the company's first mover status with a sizeable 70 percent capital subsidy for the new project.[5]

Business leaders are understandably flummoxed by all the recent changes in trade policy and the uncertain potential for many more. In the face of this change, it's exceedingly difficult to commit to wholesale changes in the corporate strategy. Instead, we propose that companies develop solutions that make sense for them by looking closely at the trade corridors that are vital to their business and industry and using that rubric to shape tactical moves that will position them well for a volatile future.

At the time of publishing, countries around the world are actively revising tariff and trade policies. Final outcomes and implications for businesses, governments, and individuals are highly uncertain.

[4] "India's semiconductor market set to reach $103.4 billion by 2030," Ministry of External Affairs, Government of India, February 12, 2025.
[5] Nidhi Singal, "Narendra Modi govt is giving shape to India's semiconductor dreams: A high-stakes race to global dominance," *Fortune India*, February 9, 2025.

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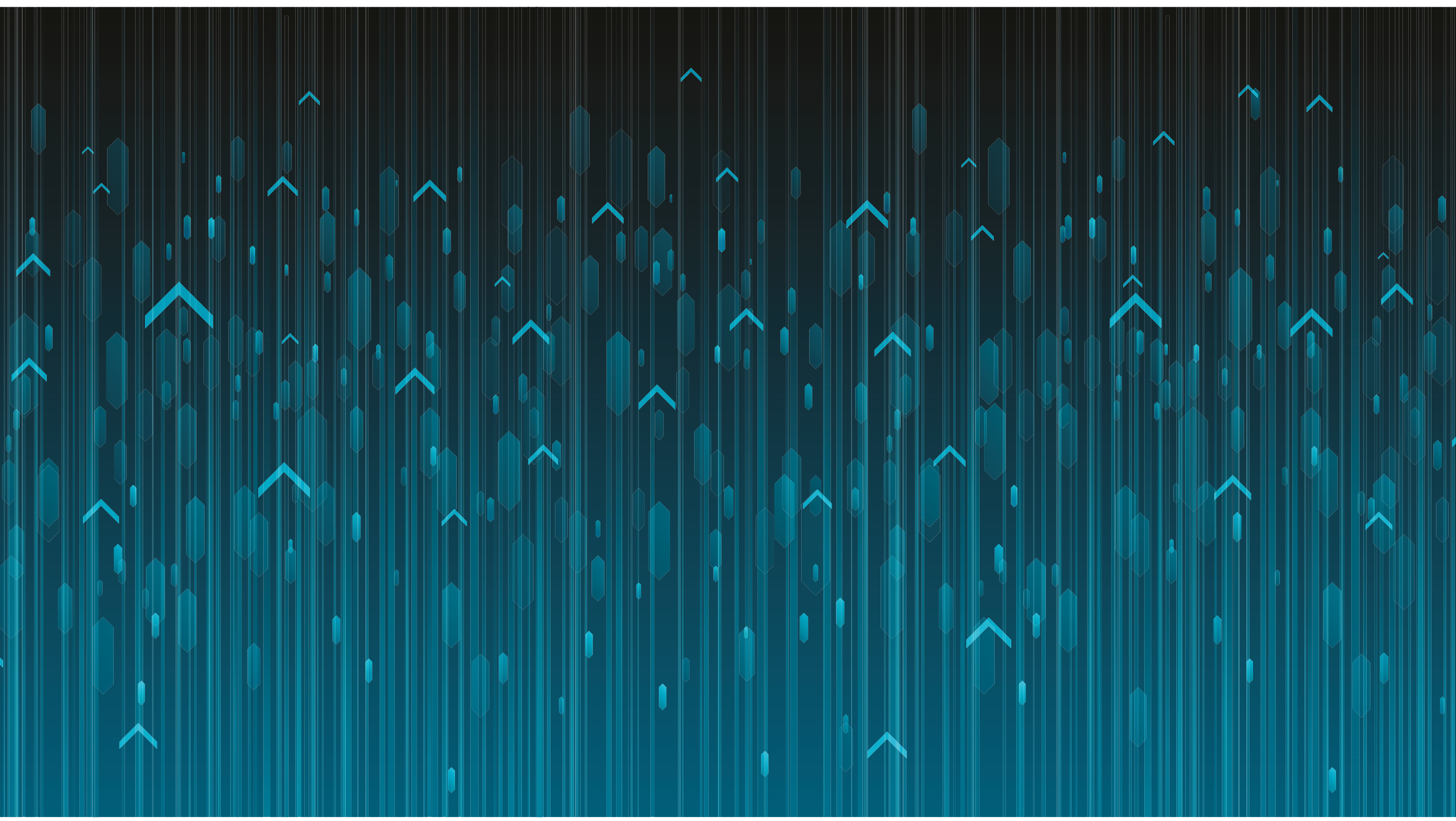
Section overview

A new wave of FDI could help the country stare down uncertainty

India-bound investments in future-focused sectors could favor faster economic growth amid shifting geopolitical dynamics.

By Rajat Dhawan, Jeongmin Seong, and Shivanshu Gupta



November 2025

Foreign direct investment (FDI) has a long history of transforming industries—from steel to semiconductors. This has been true in countries such as China, Japan, South Korea, Vietnam, and India, too.

But there's an FDI shake-up underway, according to a new study from the McKinsey Global Institute (MGI). As investment decisions increasingly follow geopolitical lines, India stands as the world's top emerging-market destination for announced "greenfield" FDI—that is, cross-border investment projects that create net new production capacity. From 2022 through the first five months of 2025, India's greenfield FDI inflow announcements have averaged $83 billion a year—24% higher than in the 2015 to 2019 period.

Of those billions pledged to India since 2022, nearly 80% were destined for advanced manufacturing, communications and software, and resource-related sectors—industries poised to shape tomorrow's global economy. These are neither the conventional textile nor basic product investments that played larger roles in years past. While India's large and growing domestic market continues to pull in foreign investors, it is far from the only factor in play in the post-pandemic years.

FDI as a sign of India's promise as a hub for future-shaping industries. The MGI study analyzed about 200,000 announced greenfield FDI deals over the past decade. The analysis indicated that large corporations are increasingly making multibillion-dollar bets on future-shaping industries and linking more geopolitically aligned economies in the process. Amid this global shake-up, signals were mixed for emerging economies, especially for those that may have grown dependent on foreign inflows to prop up economic growth.

Since 2022, advanced economies like the United States have attracted larger shares of investment—mostly from one another. For emerging economies in aggregate, the absolute value of FDI announcements has gone up while their share of the total pie has declined. The year 2025 brought more uncertainty. In the first five months of the year, new FDI announcements destined for emerging economies dropped by half, in annualized terms, versus the 2022-to-2024 period.

As for India, of the $83 billion per year in announced incoming FDI since 2022, almost half headed for just two of its high-potential sectors. Those two were AI infrastructure and advanced manufacturing, which includes semiconductor, electric vehicle (EV) and battery making facilities. For example, we see US tech giants announcing large data centre projects on Indian soil. Sizeable semiconductor investments are also in the works. At the same time, we see Japanese and South Korean companies announcing significant new projects in India's automotive sector for EV assembly and battery manufacturing. These investments could further integrate India into advanced Asia's value chains, increasing flows of goods such as components between Japan and Korea, and India. Such investments in knowledge-intensive areas can also facilitate the flow of specialized expertise to Indian industry and empower home-grown tech talent.

It's no coincidence that both the AI infrastructure and advanced manufacturing industries also figure prominently among India's 18 future arenas, identified as engines of growth and dynamism in other recent MGI research. India's fast-growing and dynamic AI software and services, semiconductors, EVs and batteries were among the 18 transformative industries that could yield up to $2 trillion in revenue for India by 2030—according to a comprehensive analysis of rapidly evolving large-scale sectors and India's inherent strengths, capabilities, and strategic priorities.

A fine balance? Recognizing that geopolitical considerations are increasingly important in multinational companies' strategies and investment decisions, where does India stand in the geopolitical landscape of FDI?

The US, advanced Asian economies and Europe were the three regional groups we tracked contributing the lion's share of India's announced FDI inflows—with each of the three contributing about 30% of the total. This

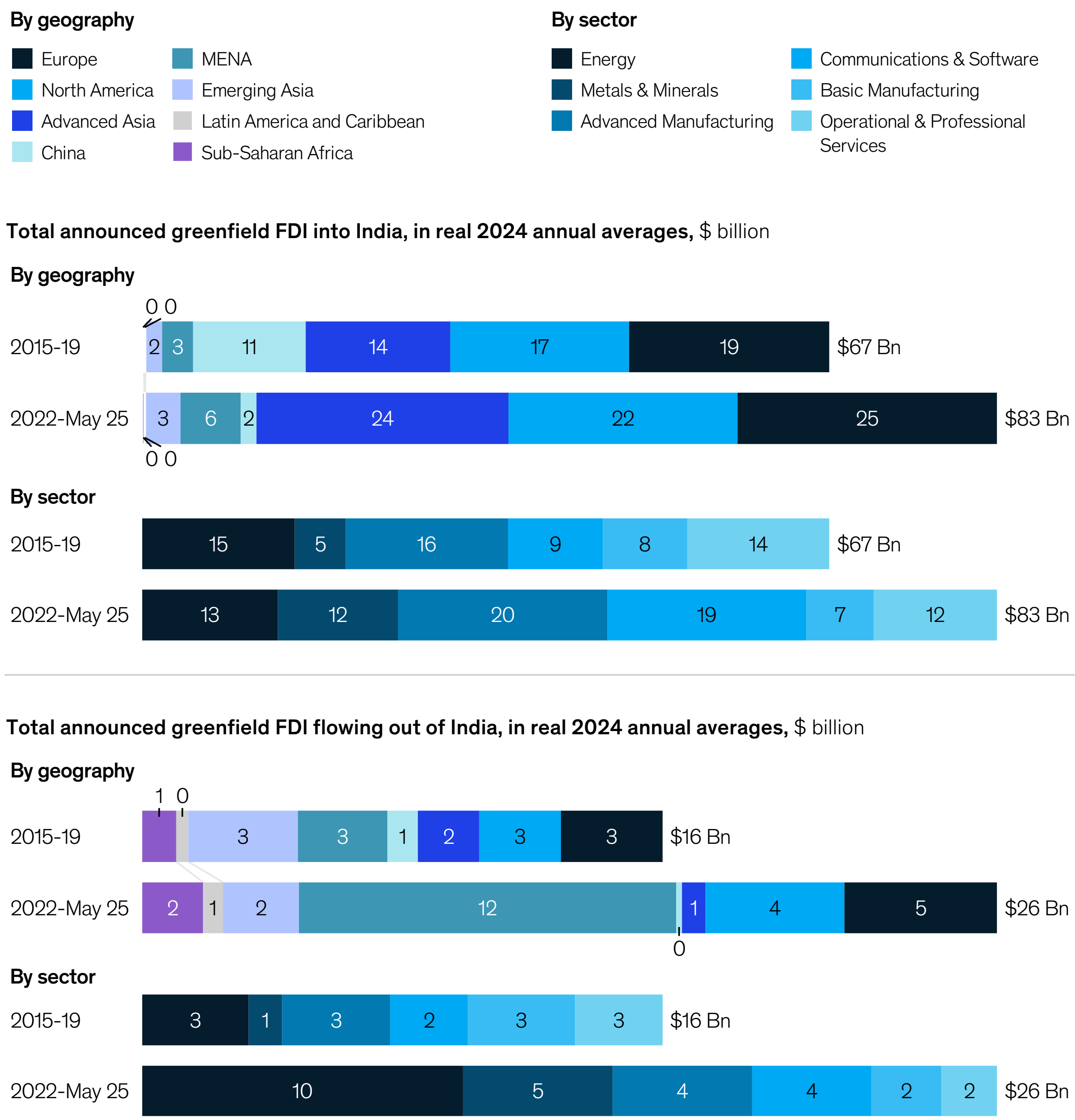
While FDI inflows amount to just a tiny fraction of India's domestic economy, spillover effects can have outsize impact over time.

investment mix differs from what India used to receive in the years just before the pandemic. Notably, Chinese investment in India has plunged, falling 86% between 2015–2019 and 2022–2025 (through May).

Meanwhile, the announced investments coming from advanced Asia have grown by about 75% since 2022, compared with the 2015-19 period. On the whole, the regional sources of India's FDI pledges are diverse and seemingly well balanced.

Exhibit

Announced greenfield FDI into and out of India



Source: FDI markets deal-level data 2015-25, all deals until May 2025 considered

While India holds up relatively well amid the FDI shake-up, it's also worth noting that Indian multinationals are meaningfully expanding abroad. This is another way new trade corridors may be forged. India's announced outbound greenfield FDI rose 64%, from $16 billion per year in 2015–2019 to $26 billion per year in 2022–2025, with resource-related deals in the Middle East and North Africa (MENA) growing most significantly.

From FDI to productive capacity and economic gains: In principle, FDI can be an important engine of growth, both directly and via spillover effects. And while FDI inflows themselves amount to just a tiny fraction of India's domestic economy, spillover effects can have outsize impacts over time when they bring knowledge, nurture supplier and talent ecosystems, and catalyse further investment.

When FDI investments are made, we find there are three conditions that point to its subsequent spillover success. First, an economy that receives FDI gets integrated into global value chains via upstream or downstream linkages with other countries. Second, such an economy has adequate human capital, infrastructure and regulatory frameworks in place to absorb incoming technology, skills and knowledge. Finally, FDI spurs domestic investment that boosts economic competitiveness in a sustainable way.

Global investors want to see a clear path for growth and value-creation via their FDI projects. That requires a stable and consistent investment climate—something that should be created and monitored by FDI recipients like India.

With recent US tariffs on India—among the highest in the world—adding uncertainty to exports, what will happen next? While there are no definitive answers right now, we see high potential in a new wave of India-bound FDI. It could offer space to maneuver in favor of faster economic growth amid shifting geopolitical dynamics.

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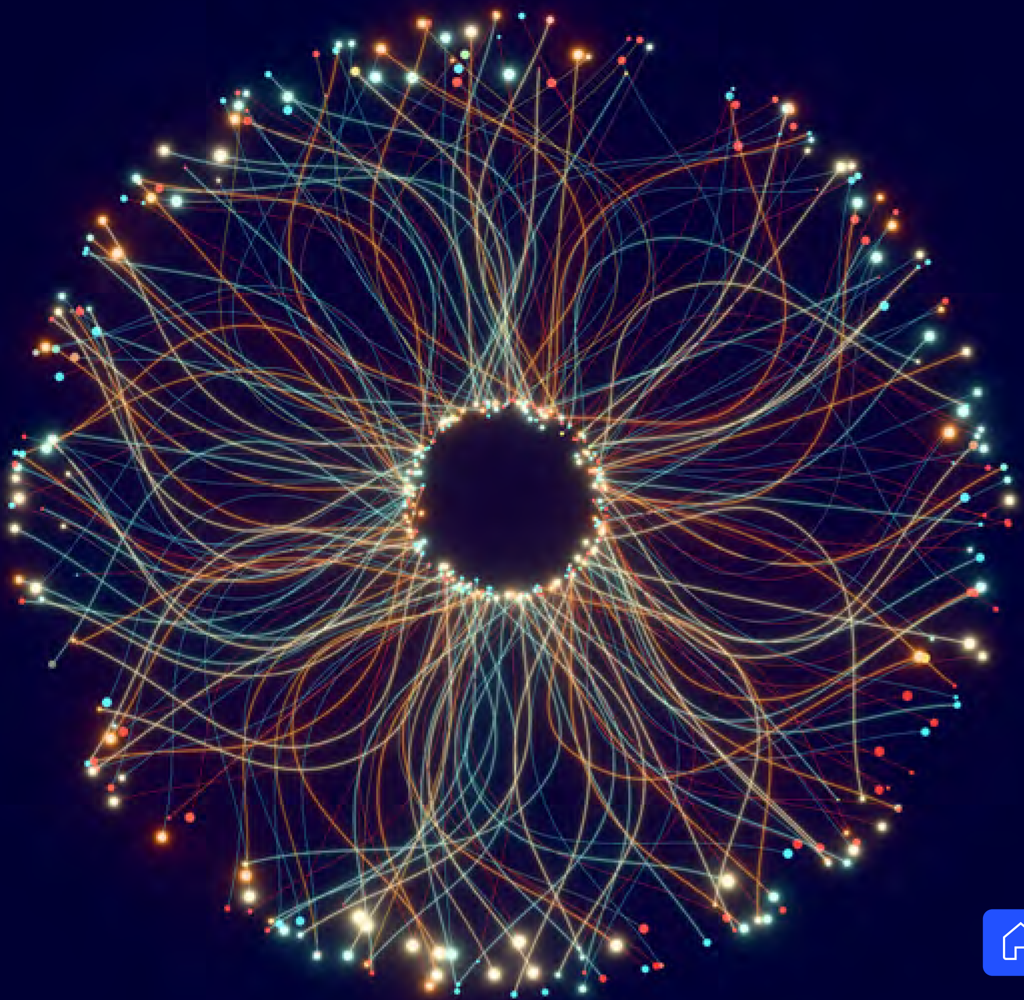
Section overview

Sectors in focus

Insights for practitioners on unlocking value in their industry



Contents page

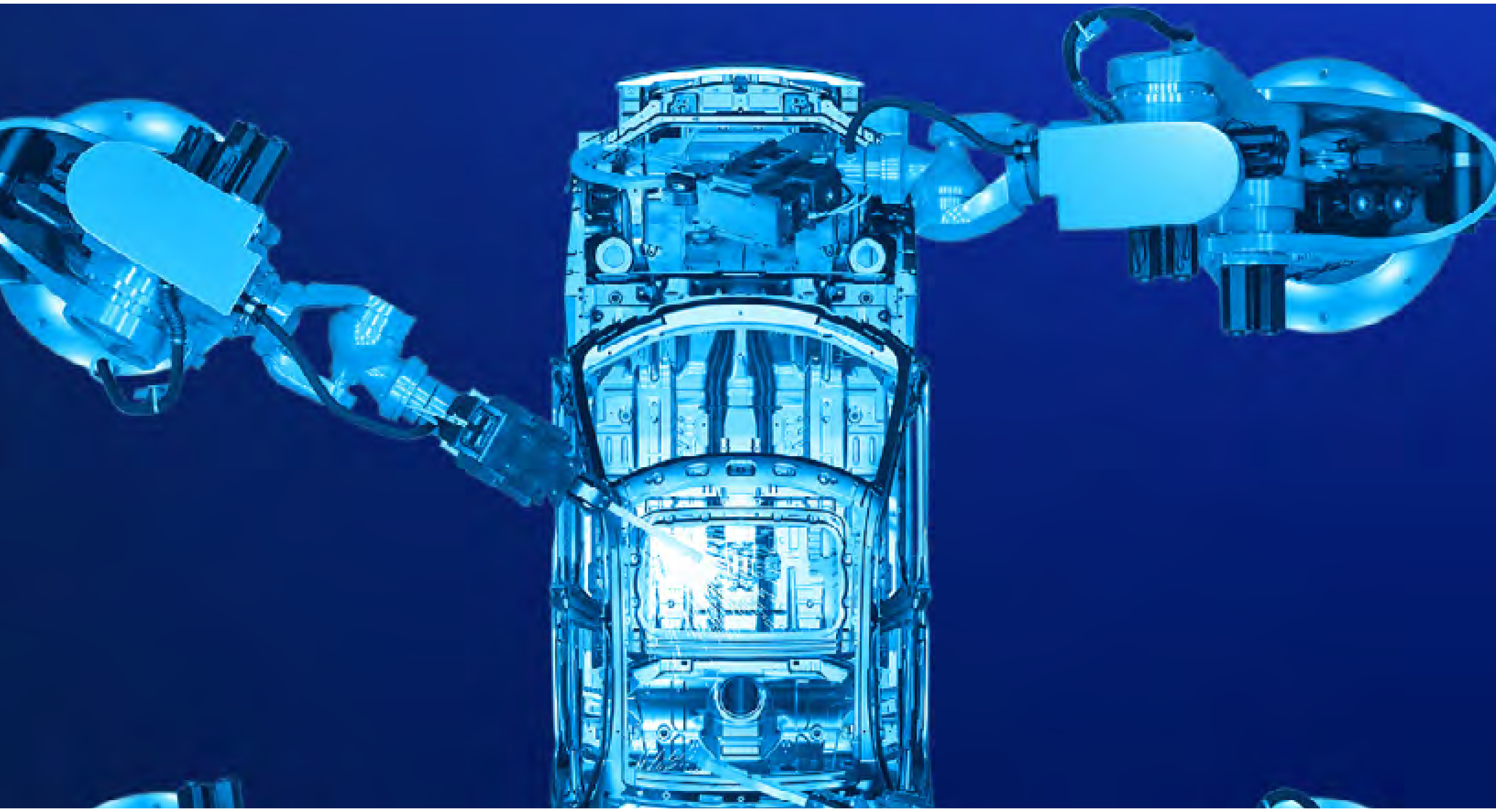
Read the full article

Executive summary

Shaping the future of India’s auto component industry amid global trade shifts

As geopolitical shifts redefine global trade in auto components, India’s industry emerges as a key player, projected to reach $200 billion by 2030. A two-pronged approach could unlock this potential.

This article is a collaborative effort by Brajesh Chhibber, Rajat Dhawan, Shivanshu Gupta, and Shubham Singhal, with Akash Misra and Jayati Shah, representing views from McKinsey’s Automotive & Assembly Practice.



November 2025

Geopolitical and structural changes have been redrawing global trade patterns, with an estimated $12 trillion to $14 trillion in trade expected to shift across trade corridors by 2035.[1] Despite these challenges, global trade is projected to grow from $33 trillion in 2024 to $42 trillion to $45 trillion by 2035.[1]

The auto component industry has been heavily impacted by trade corridor shifts. India is now emerging as a key player in this realignment, helped by its cost competitiveness, skilled workforce, and growing domestic market.[2]

This is evidenced by a steady expansion of opportunities in the domestic and export markets and a compound annual growth rate (CAGR) of about 10 percent over the past five years in the Indian auto component industry. With domestic and exports demand rising further, this industry is projected to reach $200 billion by 2030.[3]

The two pillars driving this growth are a $20 billion to $30 billion internal combustion engine (ICE) export opportunity by 2030 as global markets consolidate, and a 35 percent CAGR in domestic electric vehicle (EV) sales in line with rising worldwide electrification and connectivity.[4]

As these structural changes play out, they create short-to-medium term disruptions in the global trade flows, with implications for India's automotive component value chain.

— Reliance on critical components such as rare earth elements and semiconductors, the bulk of which are in China, creates supply risks and a need to diversify sourcing.

— Capability gaps in advanced technologies, high and growing import dependence, and limited investment in R&D for sustainable alternatives undermine global competitiveness.

— Policy shifts and carbon taxes in trade with developed markets are seeing suppliers set up local production in export markets, adopt greener practices, and diversify the export customer base.

— MSMEs, which contribute approximately 40 percent to industry revenue,[5] face structural inequities such as a lack of economies of scale, rising costs, limited access to global markets, and the need for technology upgrades.

To navigate the evolving landscape and capitalize on emerging opportunities to lock in long-term value, the industry could consider the following two approaches:

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[1] "A new trade paradigm: How shifts in trade corridors could affect business," McKinsey, June 18, 2025.
[2] Based on current understanding of trade relations and tariffs.
[3] Data provided by Auto Component Manufacturers Association, July 2025.
[4] McKinsey analysis and McKinsey Center for Future Mobility electrification projections.
[5] Data provided by Auto Component Manufacturers Association, July 2025.

India's auto component industry is emerging as a key player, helped by its cost competitiveness, skilled workforce, and growing domestic market.

— **The IGNITE** approach:

- **I**CE **G**lobal play can be enhanced by upgrading and refining supply chain strengths, paving the way for India to secure the "last person standing" advantage.
- **N**ew technology can be developed to future-proof the industry and ensure relevance in emerging powertrains.
- **I**nvestment in critical capabilities, such as global sales expertise and adherence to quality standards, can enhance competitiveness in the global marketplace.
- **T**alent rewiring can create an effective future-ready workforce and close gaps between academic and industry training and the skill sets required on the ground.
- **E**ngagement with industry peers, academia, and startups can drive innovation, create intellectual property, and design relevant curricula in institutions.

— The **GAIN** approach (**G**overnment, **A**ssociation, **I**nstitutional finance support, and **N**etwork effort of MSMEs) to collaborations can serve as the primary lever to address systemic challenges, secure access to critical resources, and encourage innovation. Strategic trade agreements, infrastructure enhancements, and financial support will further strengthen the industry's global position.

With these moves, the Indian auto component industry can weather short-to-medium term disruptions and establish itself as a key player in global automotive value chains.

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Section overview

Read the full article

Executive summary

Building resilience for global leadership: The path forward for India's chemicals industry

An outperformer despite global uncertainties and change, India's chemicals industry could rise above headwinds and sustain performance by pursuing resilience and growth.

This article is a collaborative effort by Avinash Goyal, Axel Spamann, Divy Malik, Nitika Nathani, and Rupali Jain, with Chahat Gupta and Kushal Dalal, representing views from McKinsey's Chemicals Practice.

April 2025

The global chemicals industry, which outperformed broader capital markets on returns to shareholders for most of the past two decades, is no longer an outperformer. Fundamental shifts reshaping the landscape have caused a downturn in growth and profitability that could persist in this new era, stemming from lower demand, overcapacities, and global macroeconomic conditions.

At this time, the Indian chemicals industry has delivered over 10 to 12 percent total shareholder return (TSR) between January 2020 and January 2025.[1] TSR flattened, however, in the last two years, so while still an outperformer, India's chemicals industry is not performing as before.[2] In a global context full of uncertainties and change, what will it take for Indian chemicals companies to sustain performance and drive the next wave of growth? A few themes could pave the way.

A new period for the global chemicals industry

After record highs during the COVID-19 pandemic, the global chemicals industry saw a TSR of –3.6 percent between January 2023 and January 2025. This poses a contrast to the 22.8 percent TSR seen for the MSCI World Index,[3] and stems from several fundamental shifts in the chemicals landscape, such as commodity shocks, supply chain disruptions, slower demand recovery, the push for regional self-sufficiency, fluctuating interest rates, and inflation. The differing performance of various chemicals value chains indicates that some segments seem to thrive on innovation and adaptability, while others are impacted by economic volatility, regulatory shifts, and changing demand patterns. For example, while specialty chemicals outperformed over the long term with a TSR of 5.3 percent versus 3 percent for base chemicals, diversified chemicals outperformed in the near term, with a TSR of 3.2 percent (versus –0.7 percent for specialty chemicals).[4]

Regionwise, too, performance has varied between January 2020 and January 2025, as Europe grapples with high costs and strong regulations, recording a TSR of 0 to 1 percent. Relatively, the United States and Canada seem stable with a TSR of 4 to 5 percent.[5] India led value creation in Asia with a TSR of 10 to 12 percent while China and the rest of Asia delivered flat TSR growth in the same period.[6]

India's chemicals industry: Potential for resilience and high growth

The leading contributor to the TSR of the Asian chemicals industry over the past five years, India's chemicals industry has also seen TSR flatline between January 2023 and January 2025, compared to 10 to 12 percent TSR between January 2020 and January 2025.[7] Fluctuating EBITDA margins—that rose from approximately 16 percent in fiscal year 2018 to a peak of about 17.5 percent in fiscal year 2021, then dropped to around 13 percent in fiscal year 2024[8]—have been the core driver of declining shareholder returns.

While specialty chemicals has performed relatively better than petrochemicals with a substantially lower decline in margins, the outcomes for various subsegments vary. For example, food and nutrition, flavors and fragrances, and adhesives and sealants have seen strong growth, while agrochemicals and plastic additives have struggled with weak revenue and EBITDA performance.[9]

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1 "The state of the chemicals industry: Time for bold action and innovation," McKinsey, December 2024.
2 "Global private markets report 2025: Private equity emerging from the fog," McKinsey, February 13, 2025.
3 Corporate Performance Analytics by McKinsey, S&P Global Market Intelligence.
4 Corporate Performance Analytics by McKinsey, S&P Global Market Intelligence.
5 Corporate Performance Analytics by McKinsey, S&P Global Market Intelligence.
6 Corporate Performance Analytics by McKinsey.
7 McKinsey analysis.
8 Based on data from ProwessIQ, CapitalIQ, and RoC filings.
9 McKinsey Corporate Performance Analytics.

Despite the varying performance, Indian chemicals companies have some common tailwinds: strong macroeconomic fundamentals, abundant talent, and India's low-cost manufacturing position the industry for future growth.

The way forward for Indian chemicals companies

Against the backdrop of dynamic global realities and domestic demand, profitable growth will remain a priority for Indian chemicals companies, especially to attain a step change in TSR. They could concentrate on six imperatives while focusing on their core: building on growing domestic demand, expanding their global footprint, strengthening their muscle for mergers and acquisitions (M&A) to go beyond existing patterns, targeting "in-the-money" opportunities in sustainability, improving project execution for better capex management, and tapping digital technologies for functional excellence.

1. **Build new platforms to address domestic and global demand:** With rising household consumption, investment in infrastructure and growing disposable income in India, domestic demand for various chemicals end-segments warrants setting up global-scale manufacturing capacity. Some value chains in food and nutrition, inorganic chemicals, and plastics, have already reached critical scale while demand for others is not immediately large but could rapidly accelerate. For example, electronic chemicals is expected to grow in India as semiconductor fabrication units are set up, supported by manufacturing incentives and commitments by major players.

2. **Grow global presence:** While India's chemicals exports have grown substantially in the past decade, there is room to build a truly global business. Not too many Indian chemicals companies have a physical presence in major markets outside the country. This could change if companies look to expand their profile on the world stage, from being only channel-led to shaping the market with a stronger on-ground presence across specific parts of the value chain, e.g., application development, sales offices, and warehouses, fostering deeper customer relationships in foreign geographies.

3. **Pursue programmatic M&A:** Indian chemicals companies have used M&A to largely diversify and scale operations domestically, accounting for more than 70 percent of deals in the last five years.[10] While this has been an effective approach, there is immense potential in pursuing programmatic M&A, especially as deal activity is expected to pick up with companies restructuring amid margin pressure. This could help Indian companies to build specific capabilities across the value chain, acquire advanced technology or R&D platforms, and fuel their global aspirations.

[10] McKinsey analysis based on data from S&P Global.

Indian chemicals companies have some common tailwinds: strong macroeconomic fundamentals, abundant talent, and low-cost manufacturing.

4. **Accelerate toward macro sustainability goals:** As the need for sustainability intensifies, it will be important for chemicals companies to identify avenues that could help to deliver near-term impact, such as decarbonizing through a thrust on green energy and building new platforms through a focus on bio-based chemicals that could be cost-competitive. For example, for any upcoming expansions, a hybrid solution (renewable energy plus grid-based power) could reduce energy costs by 8 to 10 percent versus a new captive power plant.[11]

5. **Ensure strategic capex planning and execution:** India's chemicals industry has a planned capital expenditure (capex) of approximately $11 billion across chemical value chains over the next two to three years. However, delayed project execution impacts most companies, with cost overruns at an average of 19 percent.[12] Targeting top quartile capex management could help improve performance, preventing delays and cost escalations.

6. **Attain functional excellence through digital interventions:** Digital interventions remain underutilized in the chemicals industry. Companies could leapfrog from the traditional approach to functional excellence to the new, analytics- and digital-driven way of delivering value in India, which could help to de-bottleneck capacities, improve conversion rates, and reduce costs. This could possibly unlock an annual EBITDA boost of around six to eight percentage points across manufacturing, supply chain, commercial, and R&D functions and ensure competitiveness—a critical attribute with the current macroeconomic environment pressuring margins.

With a focused approach to enhancing resilience and performance, Indian chemicals companies could rise above headwinds to deliver relatively strong returns, helping them to spur the industry toward global leadership and contribute to India's economic growth.

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[11] McKinsey analysis.
[12] Excluding capex in petrochemicals which could be an additional $100 billion; figures based on analysis of data from GlobalData, CMIE and Ministry of Statistics and Program Implementation (MOSPI).

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Section overview

Read the full article

Executive summary

Shaping the future of India's pharmaceutical operations

India, the world's largest producer of generic medicines, faces major technological and geopolitical disruptions. Eight priorities can help the nation's pharma industry build on its past successes.

This report is a collaborative effort by Ankur Bhajanka, Jean-Baptiste Pelletier, Parag Patel, Sasikanth Dola, Sathya Prathipati, Vishnukaant Pitty, and Vivek Arora, representing views from McKinsey's India office.

November 2025

Over the past decade and more, India's pharmaceutical sector has become the world's largest supplier of generic medicines, with exports growing faster than the global average. The industry is at a tipping point, however: the Indian and global landscapes are shifting. While emerging trends could disrupt the current environment, they could also lead to the next horizon of opportunities for the industry.

Against this backdrop, what will it take for the industry to achieve its full potential and unlock the next S-curve of performance as a global leader? To answer the question, this report looks at Indian pharma's journey so far, highlights the potential disruptions and opportunities likely ahead, and proposes strategic, thematic priorities for pharma companies as they pursue accelerated and sustained global leadership.

The evolution of India's pharmaceutical operations: Triumphs and trials

With emphasis on strong operations over the past decade, Indian pharma production has outpaced global growth by over two times, and Indian exports (at 9 percent) have outpaced global growth (5 percent).[1] Five factors have contributed to this performance:

1. *Increased investments in infrastructure.* India has a manufacturing infrastructure of 752 Food and Drug Administration (FDA)–approved sites, 2,050 World Health Organization (WHO) Good Manufacturing Practice (GMP)–certified plants, and 286 European Directorate for the Quality of Medicines and Healthcare (EDQM)–approved plants as of 2024.[2]
2. *Enhancing quality to meet global standards.* Global compliance outcomes have improved over the past decade, and the industry achieved a step change in its quality excellence trajectory.
3. *Leadership in cost and operational efficiencies.* Manufacturing costs in India have stayed 30 to 35 percent lower than in the United States and Europe, because of structurally low-cost labor, collective efforts to achieve industry-leading cost and productivity performance, and accelerated digital adoption.
4. *Expanded capabilities across the value chain.* India has also enhanced its position in the operations value chain by demonstrating broader capabilities across more complex dosages and large molecules.
5. *Sustained reliability and structural resilience.* The Indian pharma industry has worked at fostering self-reliance and building strong supply-chain networks. This supported the industry to consistently and reliably maintain essential supplies in critical times such as the COVID-19 pandemic between 2020 and 2022.

Trends likely to impact the operations landscape

The industry now stands at a crossroads, with internal and external disruptions poised to create a shifting landscape (Exhibit 1). Within the industry, performance has started plateauing while the bar for quality excellence continues to rise. Disruptions such as the next generation of digital technologies, smart automation, and new modalities or therapies could reshape traditional plant operations.

In the external environment, an even more complex set of forces is shaping the landscape. Geopolitical uncertainties and nearshoring could challenge current operations strategies. Sustainability in operations is fast becoming a critical business enabler for companies. New opportunities could arise and scale up, such as pharma services or contract development and manufacturing organizations (CDMOs) and emerging markets.

Over the past decade, Indian pharma production has outpaced global growth by over 2x, and Indian exports (9 percent) have outpaced global growth (5 percent).

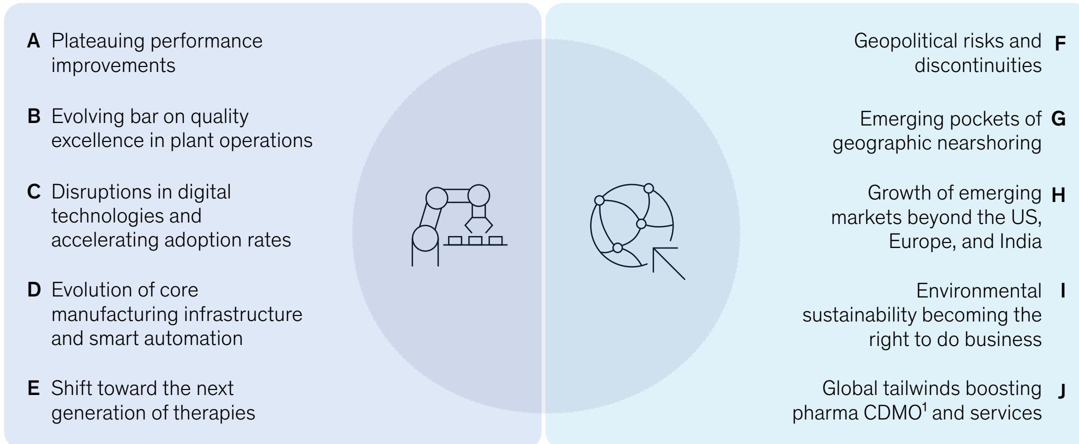
[1] BMI, a Fitch solutions company, 2024.
[2] Generic drug facilities, sites, and organization lists," US Food and Drug Administration (FDA); *Indian Pharmaceutical Sectorial System of Innovation (IPSSI),* United Nations Industrial Development Organization (UNIDO) and Government of India Department of Science and Technology, March 2023.

Exhibit 1

Various trends are likely to impact the operations landscape.

Trends shaping internal operations networks in India

Evolution and disruptions in the external environment



[1]Contract development and manufacturing organization.

McKinsey & Company

Purposeful moves that build on the tailwinds and address the headwinds could help companies to remain ahead in this ever-evolving global market.

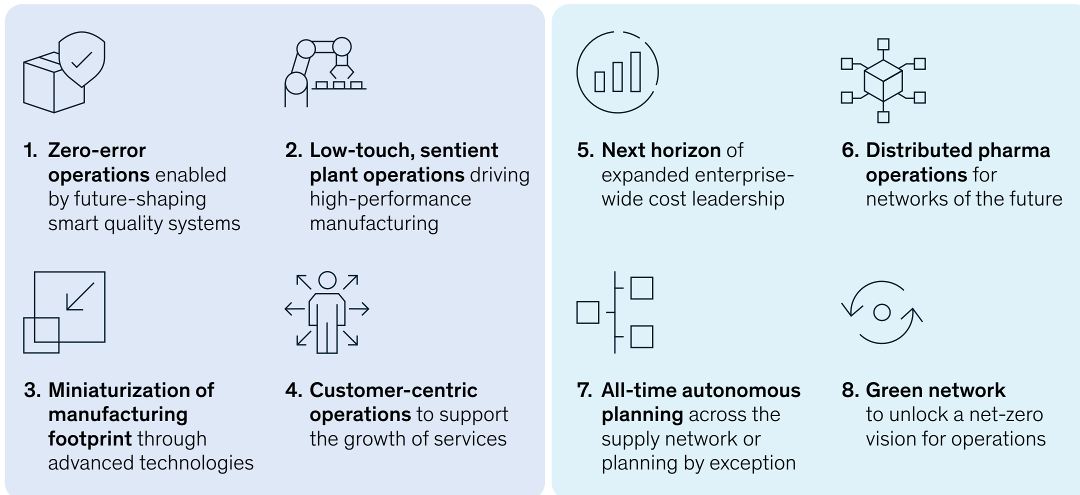
Themes for the future of Indian pharmaceutical operations

Over the next decade, companies will need to fundamentally redefine their operational strategies. With a focus on eight core priorities, the pharma industry could build agile, efficient, reliable, and sustainable operations for the future (Exhibit 2).

1. *Zero-error operations enabled by future-shaping smart quality systems.* These could effect a fundamental shift from reactively resolving issues to proactively preventing defects and from merely reducing errors to structurally eliminating them. This could unlock industry-best outcomes such as over 99.9 percent right-first-time performance, less than 0.01 percent batch failures and deviations, eight-sigma process capability, and zero repeat errors, among others.
2. *Low-touch, sentient plant operations driving high-performance manufacturing*. Intelligent systems could autonomously manage and optimize manufacturing operations to eliminate human error and enhance overall quality, over and above a potential, repeatable step change in efficiency (such as manufacturing cost reductions of more than 40 percent, overall equipment effectiveness [OEE] consistently exceeding 70 percent, a doubling of productivity, and plant downtimes reduced by 70 percent).
3. *Miniaturization of manufacturing footprint through advanced technologies.* New possibilities of continuous manufacturing, modular "plant-in-plant" setups, and small-scale operations or microreactors for higher reliability, especially in biopharma manufacturing, could all contribute to modular but high-performance delivery.
4. *Customer-centric operations to support the growth of services.* With purposeful shifts, emerging companies could fully unlock the CDMO opportunity, such as by broadening portfolio and capabilities, cultivating a customer-centric operations excellence model, streamlining operations for cost efficiency, attracting and retaining top operations talent, and continuing a focus on capacity expansion.
5. *The next horizon of expanded enterprise-wide cost leadership.* In the face of operational plateaus, companies could target the next S-curve of cost leadership through a focus on four themes: attaining the same level of cost leadership in large molecules as in small molecules, exploring deep de novo scientific

Exhibit 2

Eight priority themes could shape the next decade of pharmaceutical operations.



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optimization for API/KSM (active pharmaceutical ingredient/key starting material) manufacturing, attaining a last-person-standing position in their hero product, and unlocking the next wave of procurement excellence.

6. *Distributed pharma networks of the future.* As part of their network strategy, companies could think about establishing centers of excellence (COEs) and distributing their manufacturing footprint. These COEs could help to navigate both the increasing complexity of global pipelines and emerging pockets of regionalization.

7. *All-time autonomous planning across the supply network.* Planning by exception, where companies will need to embed AI/ML (artificial intelligence/machine learning) or digital principles in day-to-day supply chains to unlock new levels of performance, such as planning and inventory cost reductions of more than 30 percent, service levels above 98 percent across the network, and lead times shortened by around 25 to 40 percent.

8. *Green network to unlock a net-zero vision for operations.* Organizations could start adopting an integrated dual-mission approach, to drive cost optimization across spend items while optimizing their Scope 3 footprint. They could target win–win approaches to cut costs and carbon dioxide emissions, such as raw-material value chain decarbonization, process and energy efficiency, recycling and circulating, package/product redesign, and sustainable supply collaboration.

India's pharmaceutical industry stands strong today because of what it has built over the last decade. It can further accelerate its global leadership even with significant disruptions on the horizon. On the brink of a pathbreaking S-curve, it could boost growth and profitability, achieve industry-leading quality and sustainability, and drive greater innovation. The priorities outlined here could serve as a guide for pharmaceutical companies as they pursue taking this potential to reality.

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Section overview

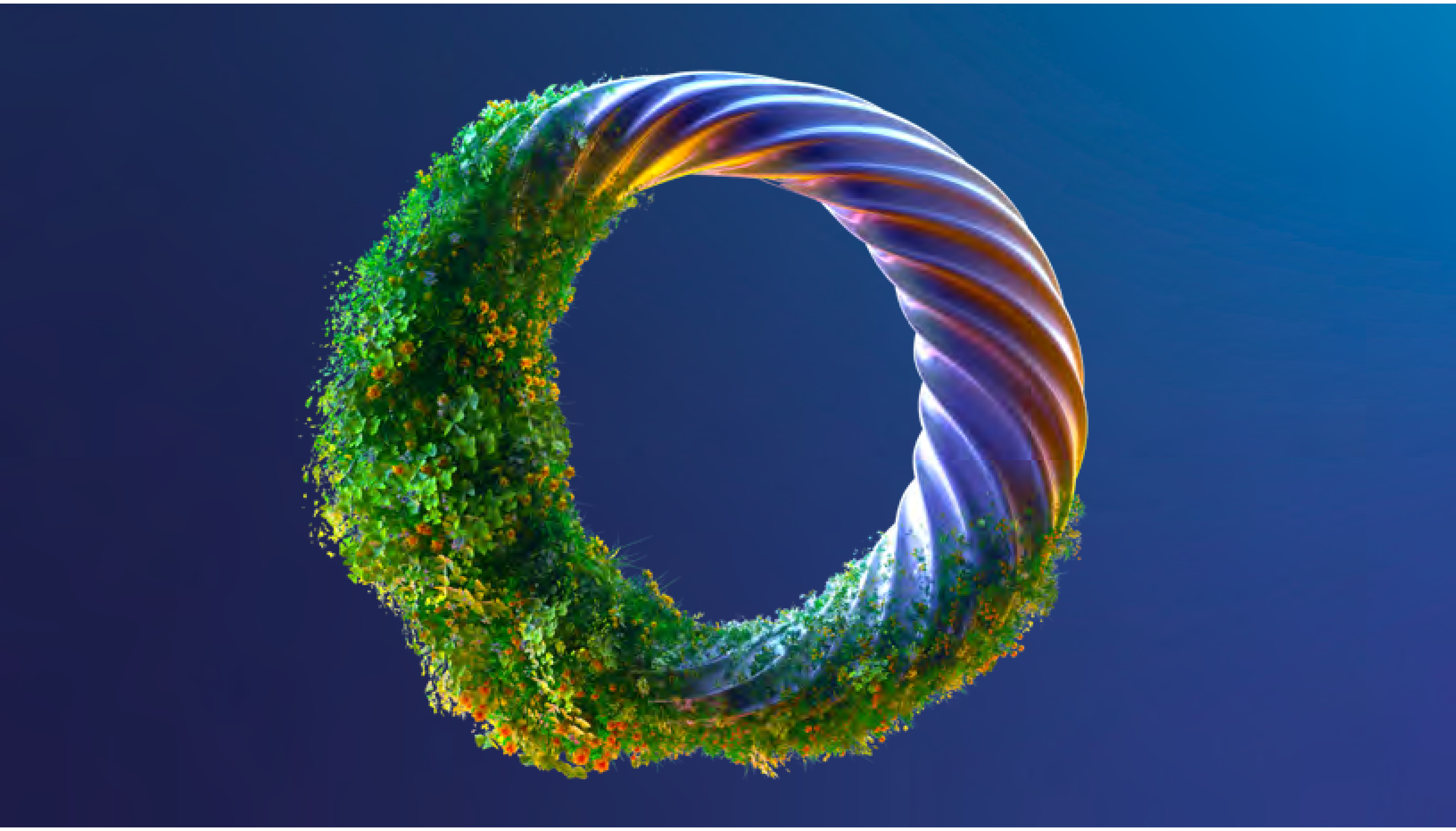
Read the full article

Executive summary

Strengthening the future: Steel for growth and resilience

India's steel industry, backed by resilient domestic demand, large-scale infrastructure investments, and favorable policy tailwinds, could help reshape the narrative at a time of mounting headwinds.

By Prabhav Sharma and Rajat Gupta with Amit Aggarwal and Ankit Agarwal



December 2025

Steel continues to anchor global infrastructure and industrial growth, maintaining its critical role in development. The sector, however, faces three distinct challenges: shifting demand centers, decarbonization imperatives, and volatile trade flows, each independently redefining competitiveness. Meanwhile, India and Southeast Asia (SEA) are emerging as separate engines of growth, with India specifically poised to nearly double its steel demand by 2035.

The global steel industry: An evolving landscape

Steel's perennial role as a pillar of urbanization and industrialization faces mounting headwinds from chronic overcapacity, protectionist policies, and the uneven pace of decarbonization.

Global steel demand is projected to rise modestly from approximately 1,750 million metric tons in 2024 to between 1,850 million and 1,900 million metric tons by 2035, with most growth concentrated in India and SEA.[1] Meanwhile, China's apparent finished-steel demand is projected to decrease from between 900 million and 950 million metric tons in 2024 to between 800 million and 850 million metric tons by 2035, driven by a structural slowdown in China's real estate and construction sectors.[2] China's increasing export surpluses are reshaping global trade patterns.

Trade measures in major steel markets have doubled since 2020, reflecting efforts by some regions, such as Europe, to safeguard domestic industries.

Raw material sourcing is likely to become complex, influenced by shifting demand patterns, regional decarbonization initiatives, evolving technology routes, and persistent supply-side risks. The shift in ore dynamics is reflected in the scrap market, where the competition for high-quality scrap is set to intensify.

How countries navigate the raw material constraints will depend on their decarbonization strategies. Europe is the front-runner with the Emission Trading System and Carbon Border Adjustment Mechanism frameworks. The United States has made significant progress with emission reductions, but the challenge is to sustain it amidst policy uncertainty. China's approach has a moderate emphasis on subsidies and regulatory controls, as does India's strategy, which is still in the early stages of decarbonization.

India: Sustained growth amid evolving sustainability imperatives

For steelmakers, India is emerging as a key market with the potential to lead the way in future growth. Backed by resilient domestic demand, large-scale infrastructure investments, and favorable policy tailwinds, India's trajectory could reshape the steel narrative.

Structural drivers point to an improved demand outlook. India's steel consumption is expected to grow at a 5 to 6 percent CAGR,[3] rising to reach between 240 million and 260 million metric tons by 2035.[4] Growth in the sector is expected to be driven by GDP expansion, a $1.4 trillion National Infrastructure Pipeline,[5] and rising consumption from the renewable energy and defense sectors.[6]

1 World Steel Association; McKinsey Global Material Insights.
2 Integrated finished steel and metallics model; McKinsey MineSpans materials demand model; worldsteel.
3 World Steel Association; McKinsey integrated steel demand model.
4 World Steel Association; McKinsey integrated steel demand model.
5 "A strong V-shaped recovery of economic activity," Ministry of Finance, January 29, 2021; "National Infrastructure Pipeline," Ministry of Commerce and Industry.
6 "India's renewable rise: Non-fossil sources now power half the nation's grid," Ministry of New and Renewable Energy, July 14, 2025; "India's renewable energy capacity hits new milestone," Ministry of New and Renewable Energy, November 13, 2024.

India’s installed crude steel capacity of ~180 million metric tons in fiscal year 2025 could reaching between 260 million and 280 million metric tons by 2035

As a result, India’s installed crude steel capacity of about 180 million metric tons in fiscal year 2025 is set to grow, reaching between 260 million and 280 million metric tons by 2035.[7] Major steel players have announced capacity additions of approximately 70 million metric tons per annum over the next five to ten years, driving much of this growth. Most of these additions are expected to support blast furnace–basic oxygen furnace (BF-BOF)–based processes, which could increase lock-in risks for carbon-intensive assets.

India’s demand for steel is expected to be driven by the demand for high-grade steel from sectors such as automotive, renewables, and defense, which is accelerating the industry’s structural shift toward downstream and value-added products. Looking ahead, downstream and value-added segments could account for an increasing share of both volume and value in the steel sector, reflecting the industry’s strategic pivot toward higher value capture and end-user orientation. The next decade’s investment cycles will test whether the sector’s financial strengths can match its technological and environmental ambitions.

Meeting emission targets could also play a significant role in shaping the domestic industry. In the near term, steel companies are reducing emissions by optimizing energy efficiency and leveraging process improvements in BF-BOF using measures such as installing control systems to reduce coke rate, optimizing slag chemistry setpoints, and increasing BOF gas capture. However, in the long run, several low-emission technologies, such as hydrogen-based direct reduced iron (DRI); carbon capture, use, and storage; and near-zero-emissions electric arc furnaces (EAFs), are being explored globally—but their readiness and cost structures remain uncertain in the Indian context.

Besides transition options, there is growing policy support to meet the decarbonization goals. India has introduced the Carbon Credit Trading Scheme in fiscal year 2025, the National Green Hydrogen Mission, are revised Production-Linked Incentive 1.1 (PLI 1.1) for specialty steel, and end-of-life vehicle rules, targeting 18 percent recycled content by fiscal year 2036.[8] However, scaling is likely to demand deeper capital and more stringent transition mandates.

Capacity additions and decarbonization mandates could become indicators of how India navigates the supply of raw materials. India’s iron ore equation is shifting from surplus to uncertainty. Although production of iron ore increased to about 280 million metric tons in 2024, growing demand could lead to an increased reliance on imports by 2035.[9]

Global demand for met coal, a critical raw material for BF-BOF steelmaking, is likely to decline by 1 to 2 percent due to falling demand from China, Europe, and the Commonwealth of Independent States.[10] However, with the addition of new BF-BOF-based steel capacities, India could lead the demand for seaborne met coal, growing from 72 million metric tons in 2023 to between 120 million and 130 million metric tons in 2035.[11]

[7] *Annual report: 2023-24*, Ministry of Steel, 2024; BigMint; expert interviews.
[8] “Big changes ahead for Indian carmakers on recycling steel,” *The Economic Times*, January 14, 2025.
[9] McKinsey Materials team; expert discussions; IBM; SteelMint.
[10] MineSpans by McKinsey; McKinsey analysis.
[11] Indian Ministry of Commerce and Industry; MineSpans.

As Indian steelmakers pivot toward lower-carbon production routes, steel scrap is emerging as a critical, yet limited, resource. India consumed approximately 33 million metric tons of scrap in fiscal year 2024, of which 30 percent was imported.[12] By 2030, demand is estimated to be 50 million to 60 million metric tons, with a shortfall of 10 million to 15 million metric tons.[13]

Strategic imperatives for the Indian steel industry

As India advances its industrialization and infrastructure goals, achieving sustainable growth and maintaining global competitiveness could depend on strategic shifts—specifically, focusing on high-growth sectors, accelerating decarbonization efforts, securing raw materials, boosting competitiveness, and collaborating with the government.

To meet the evolving demands and ensure business sustainability, Indian steelmakers may need to assess and optimize their portfolios. Their focus will, most likely, turn to high-growth segments of the domestic economy, such as infrastructure, renewable energy, defense, and electric vehicles, while also maintaining access to stable export markets.

Building on this strategic adaptation, Indian steelmakers may be required to weigh their options toward decarbonization. The pathways for a low-carbon future include developing a road map for integrating low-carbon technologies such as natural gas and H2-DRI while enhancing energy efficiency in existing BF-BOF setups, securing long-term access to scrap, green power, and low-emission raw materials. Various funding options—including PLI schemes, concessional finance, and climate-linked instruments to offset decarbonization capital expenditures—could be explored to chart the path to decarbonization.

Looking ahead, steelmakers could reimagine their supply chains to focus on reducing the reliance on imported met coal by focusing on domestic exploration, among other means, and shifting some of their capacity to EAF. They could also address cost-efficiencies by ensuring access to low-cost power and deploying AI for quality control and predictive maintenance.

Overarching these imperatives is the collaboration with the government to improve logistics, enhance raw material resilience, strengthen quality frameworks, drive decarbonization, and improve India's competitiveness in high-end export markets.

Sustained value creation and global differentiation require targeted strategic pivots by steelmakers. Such actions can position India as a leading manufacturing hub and economic driver even amidst evolving geopolitical challenges and sustainability requirements.

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[12] BigMint.
[13] *Annual report: 2023-24,* Ministry of Steel, 2024; BigMint report.

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Section overview

Read the full article

Extract

Riding the storm: How consumer finance companies can survive and thrive

AI and new technologies present a unique opportunity for consumer finance entities. By embracing them, lenders can unleash new levels of efficiency, personalization, and customer engagement.

By Aditya Sharma, Akshat Agarwal, and Amit Garg with Charu Singhal

April 2025

The advent of gen AI is helping banks and fintech companies accelerate their learning curve in consumer finance.

Over the last decade, specialized consumer finance companies have expanded financial inclusion by providing credit access to consumers whom banks had overlooked. In many geographies, they have provided huge pools of retail customers with financial services for the first time. In some emerging markets, they provide more than a third of retail lending.[1] In some markets, they supply more than 80 percent of lending for retail segments such as automotive and consumer durables.

These entities came into existence and prospered primarily because, in many geographies, they had lesser regulatory burden than banks, for instance having more relaxed capital adequacy requirements and fewer rules around fraud management. This created a space in which they could operate alongside traditional banks and lend in regions where banks found it difficult to operate. In many economies, consumer finance companies targeted markets that were neither accessible to nor a priority for banks, such as low- and middle-income populations or younger populations new to credit. To access these segments, they layered discretionary consumption spending with financing options and enhanced distribution by building relationships with offline merchant partners in categories such as consumer durables and automotive. Over the years, consumer finance companies have invented and refined the art of point-of-sale lending for customer acquisition and constructed proprietary underwriting engines based on repayment information.

However, the business model of established nonbank financial players is experiencing significant stress. Heightened regulatory pressure and rising interest rates are depressing margins. Competitors have multiplied; independent software vendors (ISVs) are offering specialized point solutions to strengthen retailers' lending capabilities, and digital merchant platforms are capturing adjacent customer lending pools. Meanwhile, the advent of gen AI is helping banks and fintech companies accelerate their learning curve in consumer finance by employing, for instance, statistical tools that use existing market data to support accurate and timely underwriting.

Key disruptions affecting consumer finance companies

The business model of consumer finance players is teetering on the brink of disruption, but these lenders can navigate this critical juncture by significantly reimagining their business and operating models. There are several challenges to consider.

- Customers increasingly expect a more digital experience
- Data and technology let banks move down the consumer pyramid
- Digital-native fintechs and e-commerce majors are competing aggressively
- Alternative lending models are surging
- Regulatory scrutiny is tighter, and interest rates are higher

A six-point plan for navigating the new reality

Owing to these disruptions, consumer finance companies' traditional business model, with its high operating expenses, is becoming obsolete. To be competitive, players need a smarter business model that better leverages their cost base and maximizes their business with existing customers. They can achieve superior economic performance by transforming their business model with the levers in each of the six key dimensions

[1] McKinsey analysis of RBI, CRISIL, and World Bank data.

Exhibit 1

Levers across six key dimensions can generate superior economic performance for consumer finance companies.

Dimensions	Levers	Economic benefits for consumer finance companies
Funding model	Business model innovations and partnerships to optimize cost of capital	• Decreased cost of funds
Product proposition	Innovative point-of-sale (POS)–based lending products; Open line of credit; Credit-plus-plus propositions; Unsecured lending (consumer durables, personal loans); Secured lending (home, gold, used-car loans)	• Increased POS fee income
Customer acquisition	Digital ecosystems and partnerships; Omnichannel customer journeys; Digital marketing; Sales channel productivity	• Decreased cost of acquiring new customers
Underwriting	Real-time customer-level underwriting; Credit assessment; Fraud management; Pricing engine	• Decreased credit costs
Collections and recovery	Loss forecasting and value-at-risk models; Smart micro-segmentation-based treatment strategy; Machine-learning settlement and recovery models; Smart digital platforms for agents	• Decreased collection and recovery costs
Customer engagement and cross-selling	Preapproved scorecards; Next-product-to-buy engine; Loyalty program; Engagement platform, hooks and nudges	• Decreased cost of acquisition via higher mix of existing customers

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in Exhibit 1. Some are already doing this; as companies reach different levels of maturity, some are charting the way and setting examples for others.

The consumer finance landscape is undergoing a profound transformation in response to technological advancements, evolving customer expectations, and new competitive forces. To thrive in this dynamic environment, consumer finance companies must embrace change and adapt their business models. By investing in digital ecosystems, AI-powered solutions, and personalized customer journeys, these players can position themselves for continued success in the years to come.

But the future of consumer finance isn't just digital; it's also Darwinian. Companies that evolve, embracing AI and hyper-personalization, will thrive in this new ecosystem. As for the rest, the extinction event for outdated lending models has already begun.

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Section overview

Read the full article

Executive summary

Value creation in Indian agriculture

Indian agriculture is thriving. Understanding its complexities—and its areas of opportunity—is critical for agribusinesses looking to be a part of its growth.

This report is a collaborative effort by Avinash Goyal, Nitika Nathani, Pradeep Prabhala, and Tom Brennan, with Akshita Agarwal and Dwijo Goswami, representing views from McKinsey's Agriculture Practice.

June 2025

India's $580 billion to $650 billion agriculture sector[1] is at a strategic juncture. A combination of external tailwinds and internal momentum—driven by factors ranging from structural reforms to digital and technological innovation—has propelled India to emerge as one of the world's largest and fastest-growing agricultural economies.

As agricultural supply chains become increasingly interconnected, India's scale as an agricultural producer and exporter positions it as a critical player in the shifting global agricultural landscape. India's agriculture sector is host to multiple structural advantages vis-à-vis other agriculture economies that, if leveraged to their full potential, could accelerate growth of the sector to $1.4 trillion by 2035 and $3.1 trillion by 2047. This positioning in the evolving landscape present an opportunity for agribusinesses to capture value, shape markets, and drives transformative growth.

To join in, agribusinesses first need to understand what's driving growth in Indian agriculture. In *Value creation in Indian agriculture*, we analyze India's agricultural economy to understand current trends, the country's structural advantages, standout agribusiness segments across the value chain, and key opportunities for new entrants and incumbents alike.

Growth and structural advantages in Indian agriculture

In the past six years, India's agricultural sector has grown 5 percent per annum on the back of structural reforms, government investments, and increased formalization, enabled by wider availability of credit (exhibit).[2] Our analysis shows potential to aim higher and set an aspiration of an additional one to two percentage points growth, which would require India to achieve greater momentum across on-farm and off-farm productivity and price markers. These markers include improving crop yields by an estimated incremental 15 to 40 percent (by using better inputs such as high-yielding variety [HYV] seeds, specialty fertilizers, biologicals, and improved farming practices), expanding downstream processing for greater value-addition potential (for example, by leveraging feedstock access to unlock production for higher-value biochemicals), and increasing agricultural exports (in line with government targets for a twofold increase by 2030).

India's agricultural landscape has five structural advantages that players can leverage:

— *A large and growing consumer base.* India's growing middle class is expressing greater demand for high-value and processed agricultural products, such as fruits and vegetables and protein sources (for example, dairy and value-added dairy products such as paneer, curd, and butter).

— *Manufacturing cost advantages.* India's cost advantages stem from a combination of structural, economic, and policy factors, including a workforce of approximately 607 million people (as of 2024)[3] and competitive manufacturing costs due, in part, to labor and utility costs.

— *Feedstock advantages.* India is the world's second-largest producer of rice, sugarcane, and wheat and the fifth-largest producer of maize.[4] India also has the lowest cost of production for rice and maize and the second-lowest for sugar (with production costs comparable with peers for wheat).[5]

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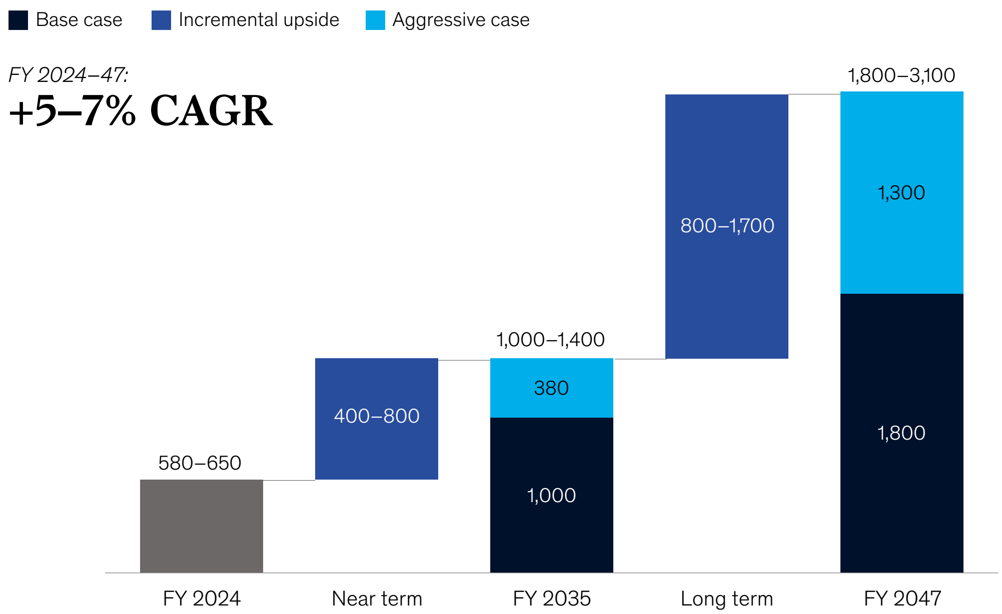
1 Nominal GDP from "GDP, current prices," IMF, April 2025; "Agriculture sector has registered an average annual growth rate of 4.18 per cent over the last five years: Economic Survey," Press Information Bureau, July 22, 2024; "Highlights of Economic Survey 2024-25," Press Information Bureau, January 31, 2025.
2 Real GDP growth rate for last six years (fiscal year 2017 to fiscal year 2023) from "India's agriculture sector demonstrates resilience, average growth rate of 5 per cent during FY17 to FY23: Economic Survey," Press Information Bureau, January 31, 2025.
3 "Labor force, total - India," World Bank, accessed May 22, 2025.
4 "Crops and livestock products," FAOSTAT, updated February 27, 2025.
5 Based on McKinsey analysis of OECD and FAO data.

Exhibit

India's agricultural sector could potentially grow to $1 trillion to $1.4 trillion by 2035 and to $1.8 trillion to $3.1 trillion by 2047.

Growth projections for India's agricultural economy, $ billion



Source: India Ministry of Finance; India Press Information Bureau; International Monetary Fund

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— *Digital infrastructure.* India has the world's largest public digital payments infrastructure,[6] which many agricultural fintechs are leveraging to build innovative credit models to support agri-financing, for example.

— *Innovation.* India is home to nearly 2,800 agtech businesses, driven by growing farmer awareness of cutting-edge solutions, expanding access to high-speed internet, and a demand for greater agricultural efficiency.[7]

Identifying past performers and future growth areas in India's agriculture sector

We analyzed historical TSR to identify which market segments have outperformed and created value for shareholders in the past five years. This analysis revealed that growth has come from across the value chain, with the total agricultural TSR increasing from 9 percent (2014–19) to 16 percent (2019–24).

We broke this growth down by segment. Within upstream segments, ag-inputs such as fertilizers and machinery led the surge, increasing to 24 percent (up from 8 percent) due to structural shifts in demand and policy support. Meanwhile, raw material–sensitive upstream segments such as feed additives and livestock struggled with cost pressures. Midstream segments saw consistent double digit growth of 16 percent from 2014 to 2024, driven by premiumization in plantation crops such as coffee and an increase in spice exports.

[6] *Report on currency and finance 2023-24: India's digital revolution*, Reserve Bank of India, 2024.
[7] Anu Kadyan, Ananya Kumar, and Radhika Kohli, "How are agritech startups revolutionising farming practices in India," Startup India, accessed May 20, 2025.

Finally, downstream segments saw low-range growth, increasing from 9 percent (2014–19) to 12 percent (2019–24). This was largely due to consumer packaged goods players investing in diversifying their product portfolios, with select pockets of growth in sugar (from 9 percent up to 29 percent) and edible oils (from 5 percent up to 34 percent) during the same period.

In addition to our historical TSR perspective, we built a forward-looking perspective by analyzing expected growth in the next five to seven years as well as average EBITDA margins. Through this analysis, we identified 40 business segments across India's agricultural value chain that posed interesting future opportunities. In total, these 40 business segments aggregate to an overall revenue pool of about $533 billion and a profit pool of $42 billion (based on 2024 estimates).

As with the TSR analysis, these segments were broken down according to their phase in the value chain. Upstream agricultural input sectors constitute $7 billion of the total profit pool, with agrichemicals, fertilizers, seeds, and agri-lending poised for growth driven by structural cost advantages, innovation, and policy support. In our analysis, we found that distribution of these agricultural inputs is expected to remain largely disorganized, although digital and omnichannel models are unlocking new value pools. In the production phase, integrated agricultural value chains (such as for livestock and plantation crops) present a $4 billion opportunity. Growth in the production phase is driven by high export growth as well as domestic opportunities fueled by cost competitiveness in production. We found that the lion's share of profit (about 70 percent of the total, or a $30 billion profit pool) is expected to come from the downstream trade and processing sector because of its high value-add potential. This is expected to be driven mainly by processing for fruits, vegetables, and staples, as well as by the industrial bioeconomy (with the predominant opportunity of bio building blocks).

How to capture value: Four key opportunities in Indian agriculture

Across India's booming agricultural value chain, four areas of potential opportunity stand out based on historical TSR, forward-looking growth potential, and proximity to India's structural advantages: bio building blocks (bio-to-X), agrichemicals, agribiologicals, and processed foods.

— *Bio building blocks (bio-to-X).* Owing to government initiatives, India's bioeconomy has experienced remarkable growth, expanding from $10.0 billion in 2014 to $165.7 billion in 2024—a 16-fold increase.[8] Within bio building blocks, two emerging opportunities stand out: bioethanol and bio-butanediol (BDO). To succeed in bio-based manufacturing and capture import substitution and export opportunities, players will need reliable, low-cost feedstock access, strategic plant location, and flexible, multi-feedstock setups that can adapt to market and regulatory shifts. These factors drive cost efficiency, security of supply, and long-term competitiveness.

[8] "The rise of India's bioeconomy from $10bn to $165.75bn in a decade," Press Information Bureau, March 27, 2025.

70 percent of the projected total profit pool (of $42 billion) is expected to come from the downstream trade and processing sector because of its high value-add potential.

— *Agrichemicals.* The domestic agrichemicals market for crop protection is valued at $4.0 billion, growing at 3 to 5 percent per annum, while the $5.5 billion export market is growing at 5 to 6 percent. In total, Indian agrichemicals are expected to see a combined scale-up to between $25 billion and $30 billion by 2047 (up from around $10 billion in 2024).[9] To succeed domestically and deepen the share of wallet at the micromarket level, players can consider connecting directly with growers, tailoring credit and incentives for distributors, and offering differentiated, high-quality products to enable profitable growth. To succeed in the agrichemicals CDMO (contract development and manufacturing organization) and CMO (contract manufacturing organization) space, players would need to combine advanced chemistry expertise, robust R&D, and manufacturing excellence with customer-centric growth strategies. Success would hinge on cost-effective scale-up, regulatory compliance, and deep alignment with client needs.

— *Agribiologicals.* The agribiologicals market, segmented into biostimulants (including biofertilizers) and biocontrols, is expected to grow at a CAGR of about 9 to 10 percent, expanding to between $600 million and $640 million in 2030 (up from $350 million in 2024). Driving growth in biologicals requires sharp micromarket focus, farmer-led demand generation, a streamlined product portfolio, and a strong channel strategy. Success lies in targeting high-potential micromarkets with tailored pull models and disciplined brand bets.

— *Processed foods.* As India's middle class grows, consumers are expected to express growing interest in processed foods. Valued today at about $330 billion, India's agricultural processing sector is crucial in linking farm production to consumer demand, driving added value and economic growth alike.[10] Processed-food players can succeed by combining capital-backed scale, deep distribution networks, and disruptive innovation with strong brand equity rooted in cultural relevance. This enables cost efficiency, market reach, and deep consumer loyalty.

Indian agriculture presents attractive opportunities across a large and complex landscape, which in turn requires potential entrants to develop differentiated capabilities to create and capture value. Across all segments, a few capabilities could be critical—in particular, captive access to feedstock, including strong sourcing capabilities; R&D and innovation capabilities, including talent management; and channel excellence, including innovative marketing and distribution approaches. Regardless of which business segment players choose to enter, they will likely need to consider how to scale operations, which is highly dependent on which parts of the value chain they focus on. With this in mind, those that leverage India's strengths could be better positioned to take part in Indian agriculture's growth story.

[9] Based on data from AgBio, CropLife, and S&P Global, as well as McKinsey analysis.
[10] Based on data from Euromonitor, Nielsen, and NSS, as well as McKinsey analysis of Registrar of Companies filings, annual company reports, and industry reports.

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Section overview

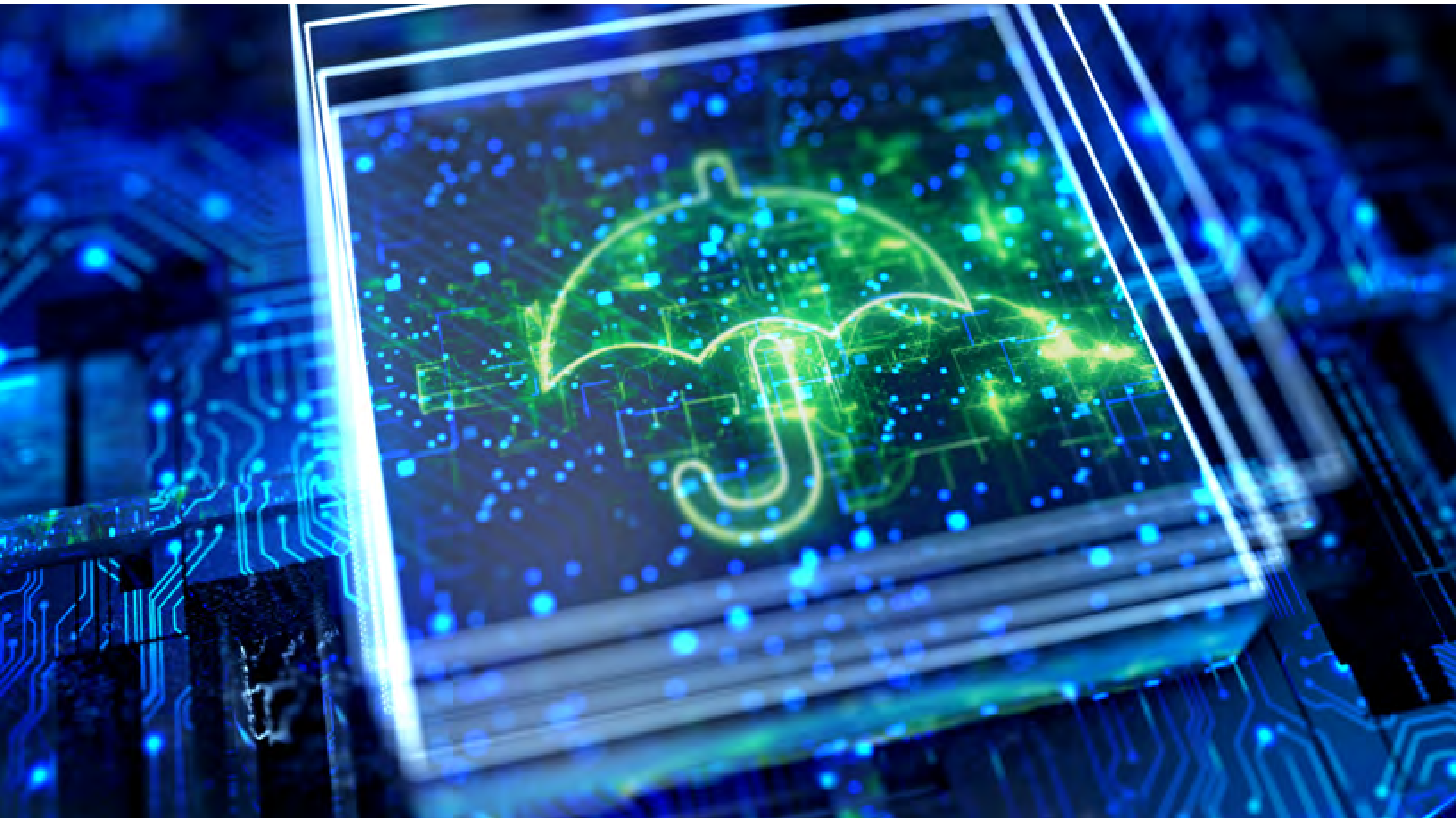
Read the full article

Executive summary

Steering Indian insurance from growth to value in the upcoming ‘techade’

A significant share of India’s people and assets remain uninsured, presenting both challenges and opportunities for the country’s insurance industry.

This report is a collaborative effort by Abhilash Sridharan, Bernhard Kotanko, and Peeyush Dalmia, with Abhishi Bhatia, Kamlesh Asrani, and Sudhanyu Veldurthy, representing views from McKinsey’s Insurance Practice.



November 2024

As India embraces digital transformation, inclusion, and a new role as a tech leader exemplified by a decade of technology transformation, or "techade," new opportunities open up for the insurance sector and the wider financial services industry. With strong valuations and a significant growth trajectory, India's insurance industry is poised for continued success. Accompanying this positive outlook, however, are concerns about profitability and notably slow innovation within the industry in India.

What would it take for the insurance industry in India to make strides toward a robust future and achieve its full potential? This report builds on in-depth McKinsey surveys of insurance consumers and agents to answer this question.[1] It identifies the industry's strengths to offer a glass-half-full perspective, outlines the challenges for the glass-half-empty view, and proposes important interventions to help unlock the industry's potential and contribution to economic growth.

Glass half full: The growth story of India's insurance industry

Rising costs of healthcare in India, a growing middle class, greater awareness of the need for insurance coverage following the pandemic, and supportive regulations have combined to position the insurance industry at the start of an insurance penetration S-curve, with the potential for rapid growth and profitability.

With a gross written premium (GWP) exceeding $130 billion and an 11 percent CAGR from fiscal year 2020 to fiscal year 2023,[2] India's insurance sector has outpaced some Asian peers in terms of premium growth. It has also attained a promising market valuation with robust performance, driving valuation multiples of Indian life insurers to a premium of seven to ten times price-to-book.

Tailwinds in insurance and beyond position the industry well for further growth. The Insurance Regulatory and Development Authority of India (IRDAI) has created regulatory interventions designed to simplify customer journeys and introduce digital innovations. The emergence of private players has transformed operational efficiency, technology, and investment.

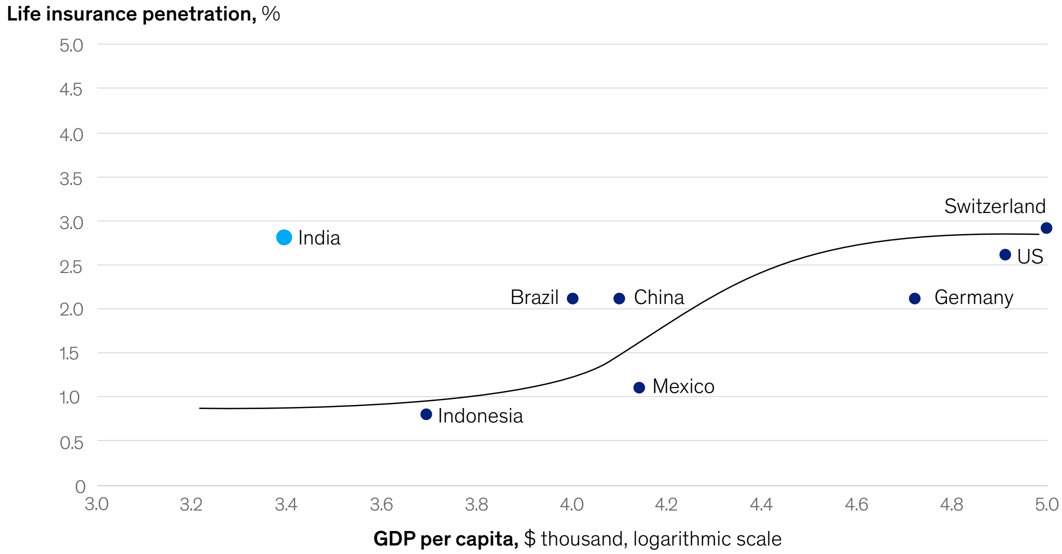
More generally, economic development typically is seen to foster a higher demand for insurance (Exhibit 1). In India, while general insurance penetration closely tracks the trajectory of the S-curve, life insurance penetration sits above the S-curve.

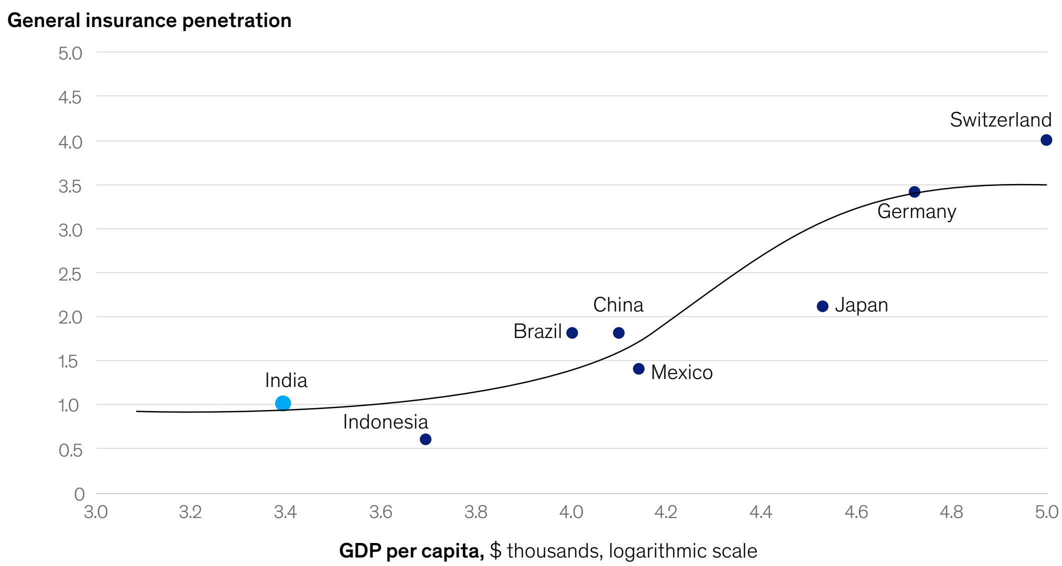
[1] McKinsey India Insurance Market Survey, August 2024, n = 5,000-plus consumers and 500-plus insurance agents.
[2] "Handbook on Indian insurance statistics 2022-23," Insurance Regulatory and Development Authority of India (IRDAI), updated February 13, 2024.

India's insurance sector has outpaced some Asian peers in terms of premium growth.

Exhibit 1

The S-curve illustrates how economic development creates growing demand for general insurance.





Source: "Handbook on Indian Insurance Statistics 2022-23," Insurance Regulatory and Development Authority of India, updated on Feb 13, 2024; World Bank

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Meanwhile, intense competition is reshaping the insurance landscape. Private players are challenging public sector incumbents to rethink strategies and embrace digital transformations. They are digitizing rapidly and improving employee productivity to create a more dynamic, competitive market. At the same time, substantial investments in innovation and growth have helped to transform the insurance industry.

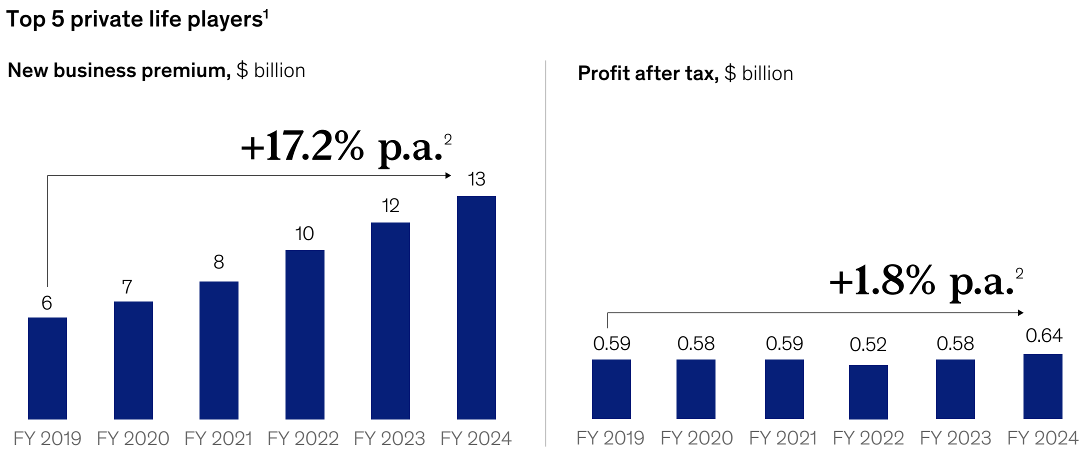
Glass half empty: Challenges constraining the industry

While insurers are positioned to grow market share, their ability to attract capital and sustain growth is impeded by various challenges (Exhibit 2). Despite the regulator's target of "Insurance for All" by 2047, the industry's penetration rate slipped from 4.2 percent in 2022 to 4.0 percent in 2023,[3] indicating that its progress has not been on par with the country's economic growth.

This highlights a critical gap in product innovation, distribution efficiency, and renewal management. Operational inefficiencies, profitability challenges, gaps in coverage, limited regulatory support that deters innovation, and rapidly evolving risks are all headwinds that affect the industry's performance (Exhibit 3). Limited financial literacy and suboptimal advisory services have contributed to concerns around misselling in the market.

Exhibit 2

Despite robust growth in new business premiums, the top five private life insurers have seen only marginal growth in net profit over the past five years.

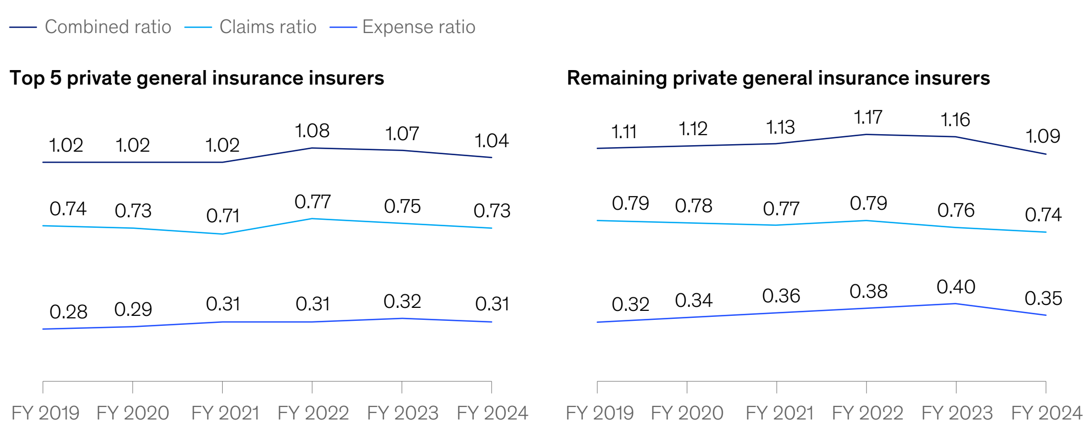


[1]Top 5 based on new business premiums in FY 2023.
[2]Per annum.

McKinsey & Company

Exhibit 3

A steady increase in the expense ratio among traditional players has meant that the combined ratio has trended up.



Source: General Insurance Council; "Handbook on Indian Insurance Statistics 2022-23," Insurance Regulatory and Development Authority of India.

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[3] "Growth and overview of the insurance sector in India: A comprehensive study," India Brand Equity Foundation, updated October 2024.

Prioritizing and encouraging innovation is critical for longer-term growth. While current strengths such as rising premiums, robust competition, and capital influx may fuel growth in the near future, for the long haul it will be important to overcome the dearth of innovation in both products and distribution. At the same time, insurers will need to develop robust capabilities to address emerging risks through rapid innovation, while ensuring efficiency and productivity through simplification, standardization, and digitization.

Built to last: The way forward for a future-proof industry

In a risk-fraught world of cyberattacks, climate change, pandemics, and a growing number of intangible assets, insurance coverage is often lacking. The cultural nuances of the Indian population call for tailored solutions to safeguard against emerging risks. The pace of change and evolving regulations have compelled Indian insurance companies to continuously update their product portfolio offerings.

To effectively address emerging risks and truly serve the customer, India's insurers can abandon traditional approaches by embracing agile product development and tailoring products for their diverse customer base.

Today, the Indian insurance industry stands at a crossroads, facing both challenges and opportunities. To build a strong, future-proof ecosystem that endures in a dynamic landscape, companies could focus on four themes: boosting their growth trajectory, enhancing profitability, sustaining valuation, and driving innovation (Exhibit 4). Doing so could help them to build greater resilience, create additional value, and contribute to the nation's economic growth.

Exhibit 4

Five interventions across four core themes can unlock industry potential.

Intervention	Growth	Profitability	Valuation	Innovation
1 Expanding product suite with customer-centric innovations	✓			✓
2 Strengthening and expanding distribution channels	✓	✓		
3 Enhancing customer experience across insurance life cycle	✓			✓
4 Boosting profitability		✓	✓	
5 Adopting new ways of working		✓		✓

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Insurance companies can explore five strategic interventions as they plan ahead:

1. *Expanding the product suite with customer-centric innovations.* To truly serve the customer, India's insurance companies could invest in agile innovation, grasping the opportunity to launch innovative products faster while anticipating customer needs and incorporating agent feedback, mastering pricing finalization, and embedding an agile go-to-market strategy. In addition, with rising life expectancy in India, composite and tailored products could be the key to affordable healthcare for the people. Moreover, given that Indian households frequently include three generations living together, potential product innovations such as multigenerational coverage would enable customers to transfer the benefits of a single coverage across generations.

2. *Strengthening and expanding distribution channels.* Staying competitive in this dynamic environment calls for insurance companies to deliver a unified, frictionless experience. Toward this end, they can make the most of all distribution channels available to them by extracting maximum value from existing channels and embracing novel channels to target a wider audience.

3. *Enhancing customer experience across the insurance life cycle.* In a dynamic, digital landscape, insurance companies need to raise their game across the customer life cycle, from product discovery and onboarding to servicing and claims. They should also explore raising awareness among the Indian population and look to develop ecosystem-based partnerships for enhanced service quality and customer engagement.

4. *Boosting profitability.* Profitability remains a challenge for Indian insurers. They could shift the needle on this by modernizing outdated technology infrastructures to mitigate technical debt,[4] implementing robust systems for accurately tracking and optimizing marketing return on investment, and elevating the risk function to serve as a pivotal value creator. This could improve financial performance, reduce operational costs, and raise profitability.

5. *Adopting new ways of working.* To adapt to changing market dynamics and ensure long-term success and profitability, insurers could adopt innovative operating models. The shift from traditional siloed structures to agile, platform-based models (comprising cross-functional squads working toward a common objective based on customer needs) has the potential to be a game changer, addressing the interplay of changing customer needs, expectations for rapid product innovation, a dynamic channel landscape, and evolving claims and customer service trends.

Data, analytics, and technology are underlying, cross-cutting enablers across all these interventions. In this respect, insurance companies will need to ensure a single source of truth for the data on which they base their analytics. To effectively use, protect, and manage data, they can make efforts to prioritize data democratization and clearly define data ownership, in addition to adhering to data protection standards, so as to comply with the Digital Personal Data Protection Act 2023.

Tech innovation offers significant potential for an industry facing both opportunities and challenges in a decade of accelerating digital transformation and inclusion. The Indian insurance industry is on an S-curve, with the potential to enhance growth and profitability, sustain valuations, and drive greater innovation. The interventions described in this report offer the opportunity to turn potential into reality.

[4] Implied cost of future rework due to outdated tech infrastructure and prioritizing speed over long-term design.

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← Section overview

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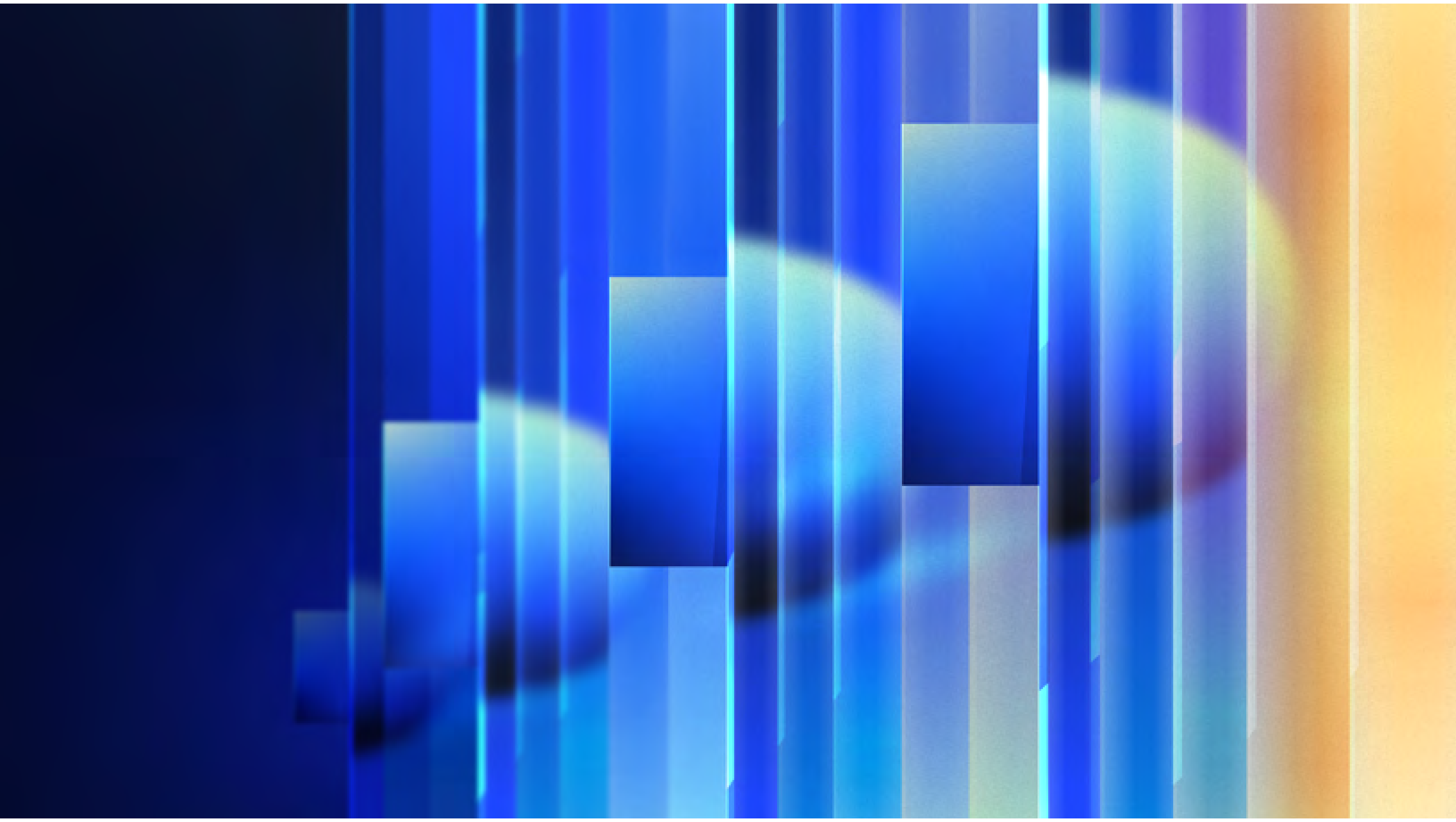
Extract

Extracting value from AI in banking: Rewiring the enterprise

To gain material value from AI, banks need to move beyond experimentation to transform critical business areas, including by reimagining complex workflows with multiagent systems.

This article is a collaborative effort by Carlo Giovine, Larry Lerner, Renny Thomas, Shwaitang Singh, Sudhakar Kakulavarapu, and Violet Chung, with Yuvika Motwani, representing views from McKinsey's Financial Services Practice.



December 2024

What does it mean to be an AI-first bank?

AI is enabling broad changes in all sorts of industries, including banking, but many banks are still in the experimental phase. Given how far AI has come and the promise it holds, experimenting is not enough. To thrive in this new world, banks will need to become AI-first institutions, adopting AI technologies enterprise-wide to boost value—or risk being left behind.

A successful AI transformation spans several layers of the organization. It's important to invest in each of the interdependent layers, as underinvestment in one section can sabotage the entire AI transformation.

The essentials of building an AI-first bank include the following:

— Reimagining the customer experience by providing personalized offers and streamlined, frictionless use across various devices, for bank-owned platforms as well as partner ecosystems.

— Using AI to help with decision making, significantly enhancing productivity by building the architecture required to generate real-time analytical insights and translating them into messages addressing precise customer needs.

— Modernizing core technology required for the backbone of the AI capability stack, including automated cloud provisioning, an application programming interface, and streamlined architecture to enable continuous, secure data exchange among various parts of the bank.

— Setting up a platform operating model that brings together the right talent, culture, and organizational design.

Our experience suggests that banks excelling in AI do four things well:

— *Set a bold, bankwide vision for the value AI can create.* Leading banks have an expansive outlook on the role that AI can play, viewing the technology not just as a driver of cost efficiencies but also as a way to enhance revenues and significantly improve customer and employee experiences.

— *Root the transformation in business value by transforming entire domains, processes, and journeys rather than just deploying narrow use cases.* Banks that excel in AI resist the temptation to launch narrow use cases such as a chatbot or a conversational Q&A tool in isolation. Although these might be fast to launch and potentially low risk, in isolation, they won't unlock material financial value.

— *Build a comprehensive stack of AI capabilities powered by multiagent systems.* Running complex banking workflows, such as evaluating a commercial customer's loan application, involves highly variable steps and the processing of a mix of structured and unstructured data. While traditional automation cannot handle such tasks, gen-AI-enabled multiagent systems, combined with predictive AI and digital tools, can (see sidebar "What are multiagent systems?"). Expanding these systems to the entire enterprise requires setting up a comprehensive AI bank stack.

— *Sustain and scale value by setting up critical enablers of the AI transformation.* These include cross-functional business, technology, and AI teams along with a central AI control tower that coordinates enterprise decisions across functions, drives governance and adoption of standardized risk guardrails, and promotes the reusability of AI capabilities.

Setting a bold, bankwide vision for the value AI can create

McKinsey's experience with hundreds of companies across various industries shows that capturing value from digital and AI transformations requires a fundamental rewiring of how a company operates. This involves six critical enterprise capabilities: a business-led digital road map, talent with the right skills, a fit-for-purpose operating model, technology that's easy for teams to use, data that's continually enriched and easily accessible across the enterprise, and adoption and scaling of digital solutions. These elements are interconnected, and all have to function well for the transformation to be a success.

AI can do much more than just automate processes and boost efficiency. Banks that extract value from AI view the technology as a transformational tool and use AI for core strategic priorities such as boosting revenue, differentiating the bank from competitors, and driving higher satisfaction for customers and employees.

Leading banks embed AI in the strategic planning process, requiring every business unit to revamp its operations and set bold financial and customer goals. They focus on innovation by prioritizing the most high-impact areas that are core to strategy, versus experimenting in peripheral areas seen as safe bets or taking the “peanut butter” approach by spreading investments across many disparate initiatives. Next, they invest in enabling the scalability of AI initiatives by setting up the right data and technology platforms.

Leading banks also ensure that major AI initiatives are business led, not just technology led. This means business executives take ownership of shaping the design of interventions, ensuring what is built is tightly aligned with what the business needs, and holding joint accountability with technology leaders to deliver outcomes.

Rooting the transformation in business value

Launching a chatbot, creating a document summarizer, using off-the-shelf gen AI tools to create ads and write emails—although these types of AI endeavors allow banks to experiment and learn with minimal risks involved, the results are typically incremental and, in isolation, rarely lead to material changes in financial outcomes.

Using AI to significantly boost business value will require banks to do the following:

— *Choose the right scope of transformation by rewiring entire domains and subdomains.* Instead of letting a thousand flowers bloom with many disparate, siloed AI projects, leading banks are using AI to reimagine entire business domains—such as risk, sales, and operations—and within them, subdomains such as relationship management, collections, and contact-center servicing and operations. A typical bank has roughly 25 subdomains (Exhibit 1). Once bank executives choose the subdomains for transformation, they reimagine each one end to end, using the full range of AI and digital technologies to achieve the desired financial outcomes.

— *Decide which subdomains to transform with AI and in which order.* To select these subdomains, banks can consider the overall business impact and technical feasibility of driving an AI transformation of a specific subdomain (and the likelihood that the chosen subdomain includes components that can be reused in subsequent subdomain transformations) (Exhibit 2). In our experience, a typical bank has fewer than ten subdomains that could most benefit from an AI overhaul and should be the first candidates for transformation. Together, these subdomains can drive 70 to 80 percent of total incremental value from an AI transformation.

In terms of business impact, banks will need to assess whether the value of an AI transformation of a particular subdomain can be accurately quantified, how well the proposed solution aligns with the bank’s strategic objectives, how well end users (whether clients or employees) are equipped to adopt the solution, and whether the solution will be a priority for the business.

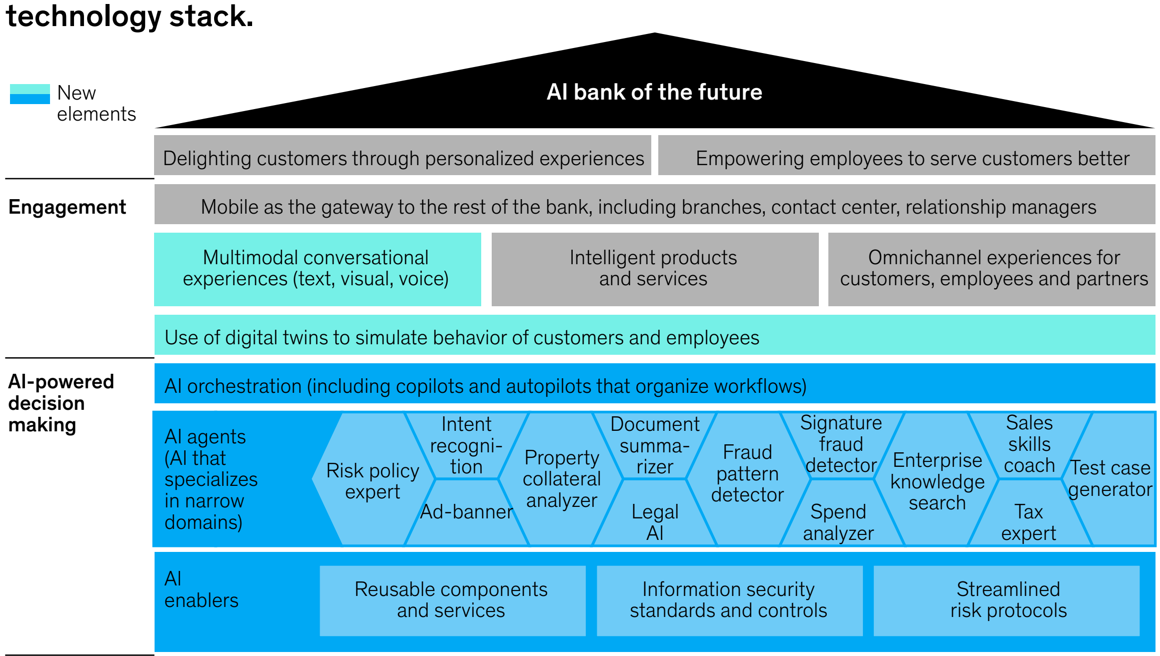
Enabling value through an AI stack powered by multiagent systems

To embed AI seamlessly across the enterprise, banks can implement a comprehensive capability stack that goes beyond just AI models. This AI bank stack contains four key capability layers: engagement, decision making, data and core tech, and operating model. Each layer will need to receive investment and attention to unlock the full power of AI for the enterprise.

Given the advent of new technologies such as gen AI, we have updated the AI capability stack (Exhibit) from a previous iteration published in 2020. Each layer's foundational elements are supplemented by several new elements.

Exhibit

To drive sustainable value, banks need to put AI first and revamp the entire technology stack.



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A typical bank has fewer than 10 subdomains that could most benefit from an AI overhaul and should be the first candidates for transformation.

Sustaining and scaling value from AI

A successful AI transformation of a bank balances delivering a positive financial impact in the near term with building lasting AI capabilities for the enterprise.

After setting a business strategy with AI at its core and choosing the domains and subdomains to be transformed with AI, banks should focus on executing that transformation at scale, delivering value from the reusable components that can be created for one domain and then plugged into other domains as needed.

For example, a large bank is going through a multiyear transformation focused on improving performance and delivering analytics at scale with use cases including hyperpersonalization to target new customers and cross-sell to existing customers. The bank built reusable assets and an end-to-end analytics pipeline powering more than 50 machine learning models, developed a tool to consolidate customer leads from different sources and optimize them based on various factors, and built a fit-for-purpose, data-driven business operating model. Early results are promising, with projected revenue increases of 10 percent and usage of the resulting assets and framework in more than 150 use cases.

AI holds the potential to revolutionize the way business is done, but getting there will require more than mere experimenting. Organizations that employ the strategies outlined in this article can harness the power of AI to achieve scale and drive lasting, material value. Although only a few leading banks are currently generating material value from AI transformations, it is possible that more could join them within the next few years.

Banks can use the following checklist to assess whether they are truly rewiring the enterprise to put AI first:

— Setting up a comprehensive, bankwide vision for AI and measuring the ROI of AI investments (versus dabbling in AI within silos)

— Taking a full-stack approach by blending gen AI with analytical AI and digital tools (versus seeking a transformation from gen AI alone)

— Reimagining entire business domains, including optimizing internal processes and operations (versus deploying narrow use cases in isolation)

— Using multiagent systems to automate complex workflows (versus training one model and expecting it to serve as a jack of all trades)

— Ensuring the reusability of components (versus building each AI project from scratch with limited coordination)

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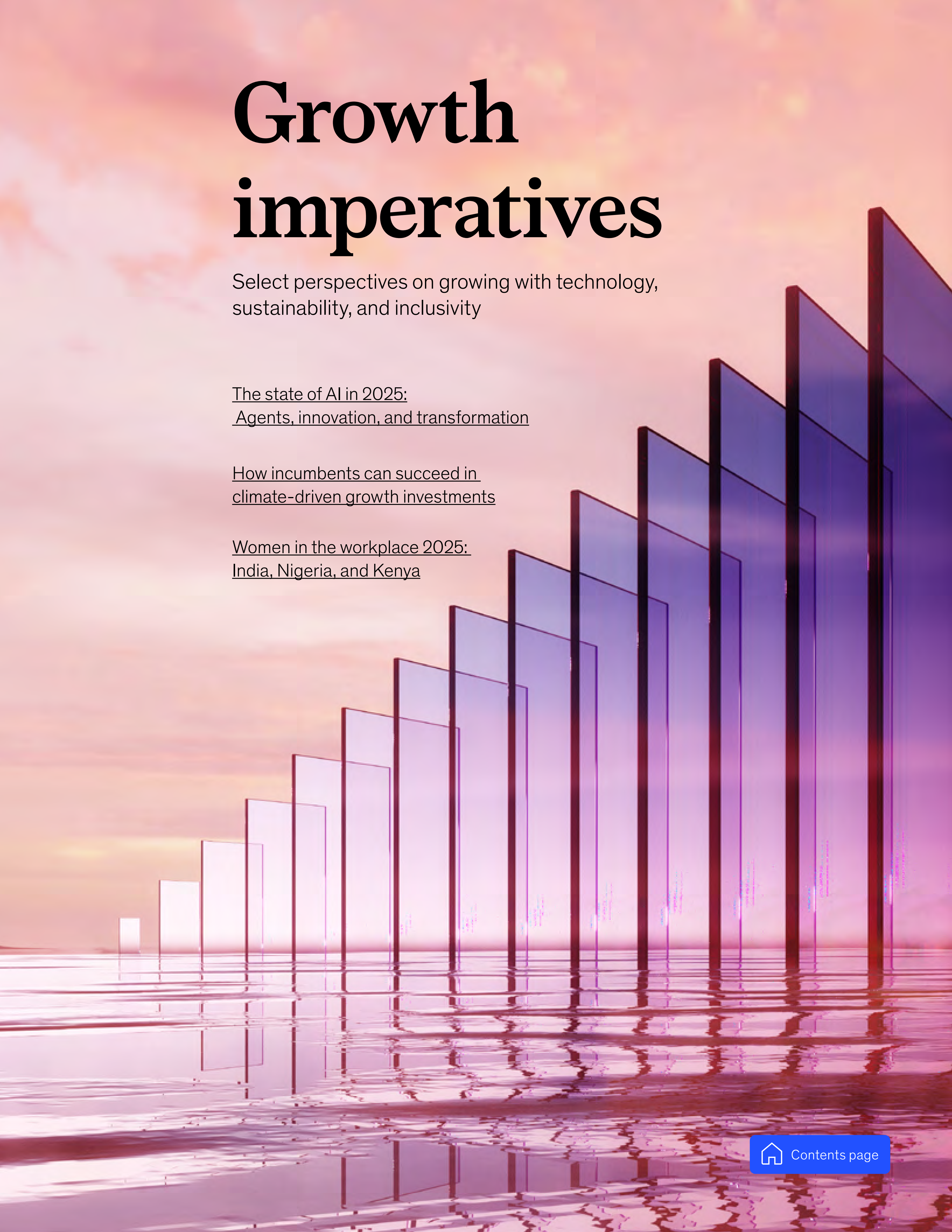
Section overview

Growth imperatives

Select perspectives on growing with technology, sustainability, and inclusivity



Contents page

QuantumBlack
AI by McKinsey

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Extract

The state of AI in 2025

Agents, innovation, and transformation

Almost all survey respondents say their organizations are using AI, and many have begun to use AI agents. But most are still in the early stages of scaling AI and capturing enterprise-level value.

This article is a collaborative effort by Alex Singla, Alexander Sukharevsky, Lareina Yee, and Michael Chui, with Bryce Hall and Tara Balakrishnan, representing views from QuantumBlack, AI by McKinsey.

November 2025

Three years since the introduction of gen AI tools triggered a new era of artificial intelligence, nearly nine out of ten survey respondents say their organizations are regularly using AI—but the pace of progress remains uneven. While AI tools are now commonplace, most organizations have not yet embedded them deeply enough into their workflows and processes to realize material enterprise level benefits. The latest McKinsey Global Survey on the state of AI reveals a landscape defined by both wider use—including growing proliferation of agentic AI—and stubborn growing pains, with the transition from pilots to scaled impact remaining a work in progress at most organizations.

About the research

The online survey was in the field from June 25 to July 29, 2025, and garnered responses from 1,993 participants in 105 nations representing the full range of regions, industries, company sizes, functional specialties, and tenures. Thirty-eight percent of respondents say they work for organizations with more than $1 billion in annual revenues. To adjust for differences in response rates, the data are weighted by the contribution of each respondent's nation to global GDP.

Key findings

1. **Most organizations are still in the experimentation or piloting phase:** Nearly two-thirds of respondents say their organizations have not yet begun scaling AI across the enterprise.
2. **High curiosity in AI agents:** Sixty-two percent of survey respondents say their organizations are at least experimenting with AI agents.
3. **Positive leading indicators on impact of AI:** Respondents report use-case level cost and revenue benefits, and 64 percent say that AI is enabling their innovation. However, just 39 percent report EBIT impact at the enterprise level.
4. **High performers use AI to drive growth, innovation, and cost:** Eighty percent of respondents say their companies set efficiency as an objective of their AI initiatives, but the companies seeing the most value from AI often set growth or innovation as additional objectives.
5. **Redesigning workflows is a key success factor:** Half of those AI high performers intend to use AI to transform their businesses, and most are redesigning workflows.
6. **Differing perspectives on employment impact:** Respondents vary in their expectations of AI's impact on the overall workforce size of their organizations in the coming year: 32 percent expect decreases, 43 percent no change, and 13 percent increases.

The state of AI in India:

— Emerging markets such as India and Central/South America largely remain in early-stage exploration, with over 70 percent of respondents saying their organizations engaged in "experimenting" or "piloting" AI initiatives.

— Respondents working for Indian organizations are the most likely to project significant or transformative AI changes for their organizations, the highest across all regions, with 58 percent expecting meaningful change.

— India (57 percent) and other developing markets such as MENA (57 percent) demonstrate the highest positive impact of AI on customer satisfaction.

— India (54 percent) and Greater China (53 percent) demonstrate leadership in leveraging AI for competitive advantage.

— Responses show that Indian organizations are around 1.4 times more likely than the global average is to fundamentally redesign their workflows in their deployment of AI.

— Respondents working for Indian companies are 1.3 times more likely than the global average to say their senior leaders are actively engaged in driving AI adoption, including role-modeling the use of AI.

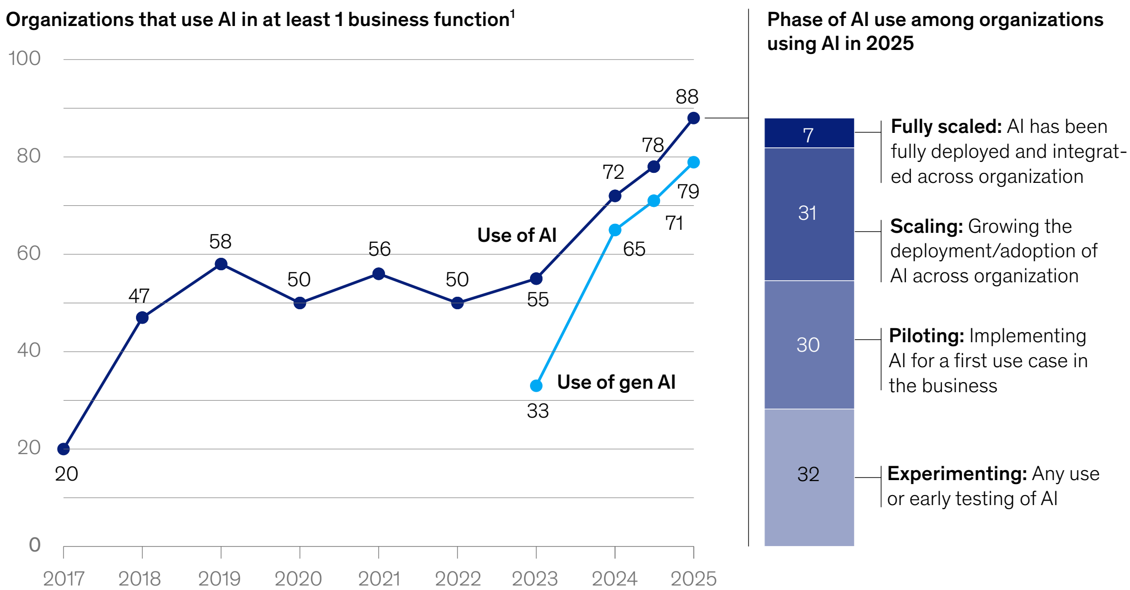
AI use continues to broaden but remains primarily in pilot phases

Our latest survey shows a larger share of respondents reporting AI use by their organizations, though most have yet to scale the technologies. The share of respondents saying their organizations are using AI in at least one business function has increased since our research last year: 88 percent report regular AI use in at least one business function, compared with 78 percent a year ago. But at the enterprise level, the majority are still in the experimenting or piloting stages (Exhibit 1), with approximately one-third reporting that their companies have begun to scale their AI programs.

Exhibit 1

Reported use of AI in at least one business function continues to increase.

Use of AI by respondents' organizations, % of respondents



[1]In 2017, the definition for AI use was using AI in a core part of the organization's business or at scale. In 2018–19, the definition was embedding at least 1 AI capability in business processes or products. From 2020, the definition was that the organization has adopted AI in at least 1 function, and in 2025, the definition was regular use of AI in at least 1 function.
Source: McKinsey Global Surveys on the state of AI, 2017–25

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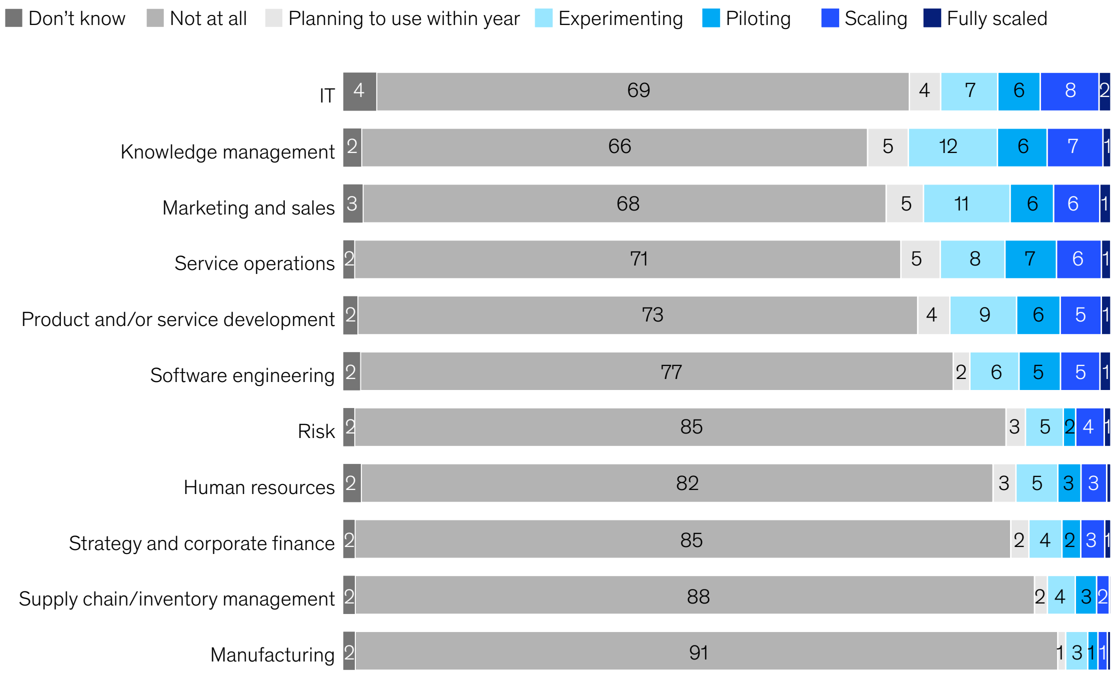
Many organizations are already experimenting with AI agents

Organizations are also beginning to explore opportunities with AI agents—systems based on foundation models capable of acting in the real world, planning and executing multiple steps in a workflow. Twenty-three percent of respondents report their organizations are scaling an agentic AI system somewhere in their enterprises (that is, expanding the deployment and adoption of the technology within a least one business function), and an additional 39 percent say they have begun experimenting with AI agents. But use of agents is not yet widespread: Most of those who are scaling agents say they're only doing so in one or two functions. In any given business function, no more than 10 percent of respondents say their organizations are scaling AI agents (Exhibit 2).

Exhibit 2

No more than 10 percent of respondents report scaling AI agents in any individual function.

Phase of AI agent use at respondents' organizations, by business function,[1] % of respondents (n = 1,933)



Note: Figures may not sum to 100%, because of rounding.
[1]Question was asked only of respondents who reported regular use of AI in the respective functions and was rebased to reflect the total sample.
Source: McKinsey Global Survey on the state of AI, 1,993 participants at all levels of the organization, June 25–July 29, 2025

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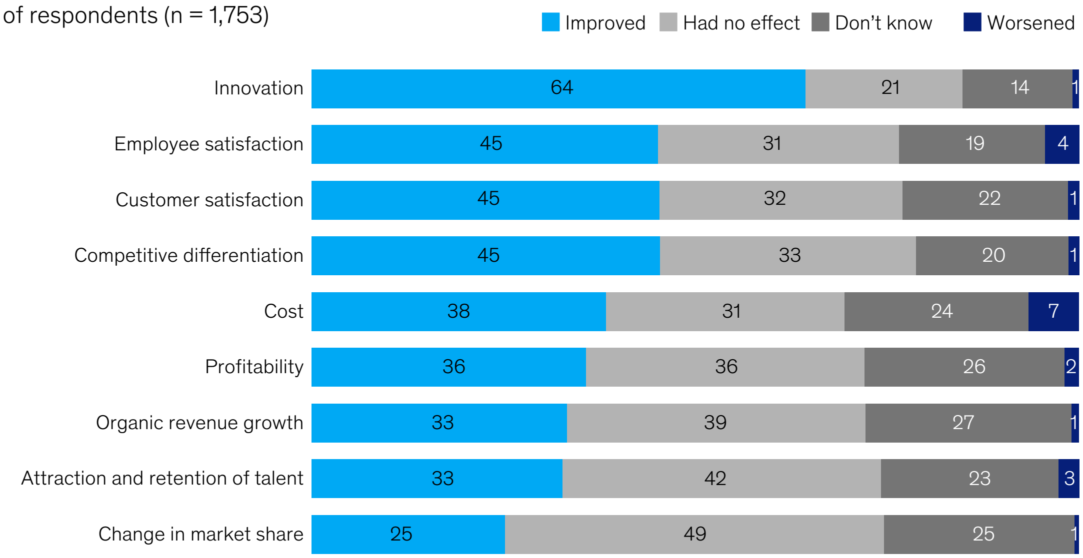
AI as a catalyst for innovation

Responses suggest that for most organizations, the use of AI has not yet significantly affected enterprise-wide EBIT. Thirty-nine percent of respondents attribute any level of EBIT impact to AI, and most of those respondents say that less than 5 percent of their organization's EBIT is attributable to AI use. However, respondents see other company-wide qualitative outcomes: A majority say that their organizations' use of AI has improved innovation, and nearly half report improvement in customer satisfaction and competitive differentiation (Exhibit 3).

Exhibit 3

Respondents most often cite benefits from AI in innovation, employee and customer satisfaction, and competitive differentiation.

Extent to which AI use has affected organizational measures over the past year,[1]
% of respondents (n = 1,753)



Note: Figures may not sum to 100%, because of rounding.
[1]Asked only of respondents who said their organizations regularly use AI in at least 1 business function.
Source: McKinsey Global Survey on the state of AI, 1,993 participants at all levels of the organization, June 25–July 29, 2025

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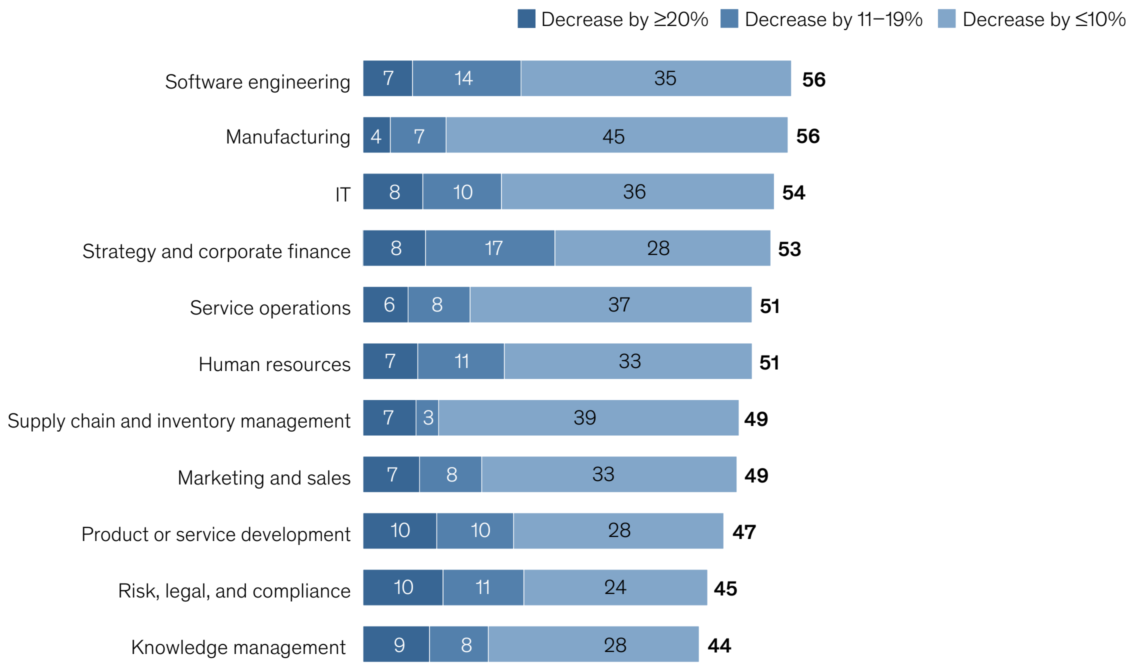
While reported cases of enterprise-wide EBIT impact are limited, many respondents say they are seeing cost benefits from individual AI use cases—especially in software engineering, manufacturing, and IT (Exhibit 4).

Exhibit 4

Respondents most commonly report cost benefits from AI activities in software engineering, manufacturing, and IT.

Cost decrease within business units from AI use, past 12 months, by function,[1] % of respondents



Note: Figures may not sum to totals, because of rounding.
[1]Question was asked only of respondents who said their organizations regularly use AI in a given function. Respondents who said “cost increase,” “no change,” “not applicable,” or “don’t know” are not shown.
Source: McKinsey Global Survey on the state of AI, 1,993 participants at all levels of the organization, June 25–July 29, 2025

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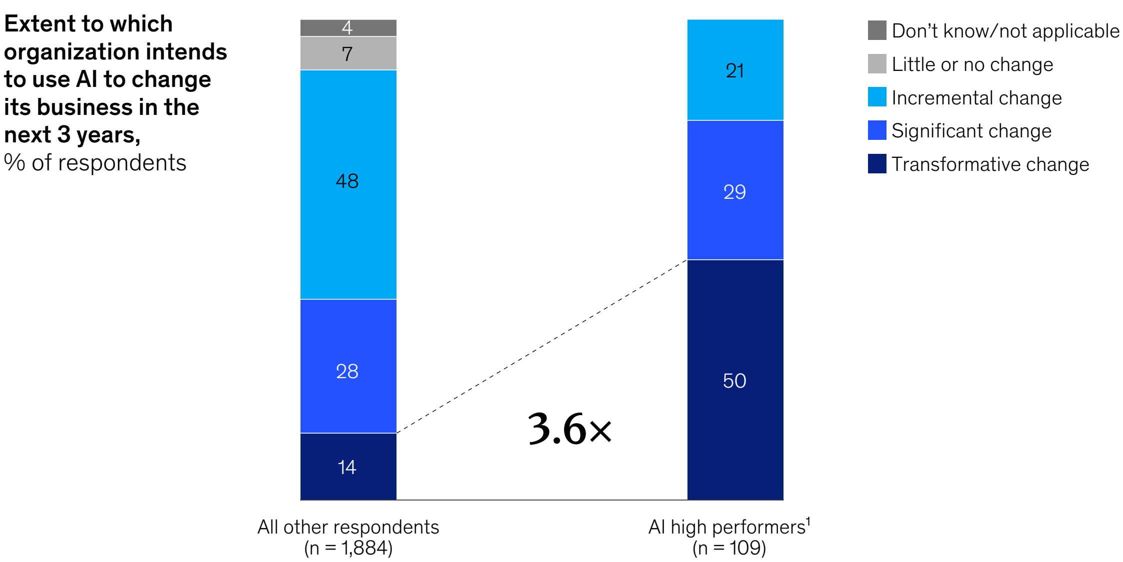
Organizations with ambitious AI agendas are seeing the most benefit

Meaningful enterprise-wide bottom-line impact from the use of AI continues to be rare, though our survey results suggest that thinking big can pay off. Respondents who attribute EBIT impact of 5 percent or more to AI use and say their organization has seen "significant" value from AI use—our definition of AI high performers, representing about 6 percent of respondents—report pushing for transformative innovation via AI, redesigning workflows, scaling faster, implementing best practices for transformation, and investing more.

High performers have bold ambitions to transform their business: AI high performers are more than three times more likely than others are to say their organization intends to use AI to bring about transformative change to their businesses (Exhibit 5).

Exhibit 5

High performers are more likely than others to expect their organizations to use AI for enterprise-wide transformative change.



Note: Figures may not sum to 100%, because of rounding.
[1]AI high performers are respondents who reported that more than 5% of their organization's EBIT and "significant value" are attributable to the organization's use of AI.
Source: McKinsey Global Survey on the state of AI, 1,993 participants at all levels of the organization, June 25–July 29, 2025

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In addition to high aspirations at the enterprise level, high performers are also nearly three times as likely as others are to say their organizations have fundamentally redesigned individual workflows (Exhibit 6). Indeed, this intentional redesigning of workflows has one of the strongest contributions to achieving meaningful business impact of all the factors tested.[1]

Exhibit 6

High performers are nearly three times as likely as others are to fundamentally redesign their workflows in their deployment of AI.

Respondents who report fundamental redesign of organization's workflows in their deployment of AI,[1]
% of respondents

[1]Question was asked only of respondents whose organizations use AI in at least 1 function.
[2]AI high performers are respondents who reported that more than 5% of their organization's EBIT and "significant value" are attributable to the organization's use of AI. For AI high performers, n = 109; for all others, n = 1,644.
Source: McKinsey Global Survey on the state of AI, 1,993 participants at all levels of the organization, June 25–July 29, 2025

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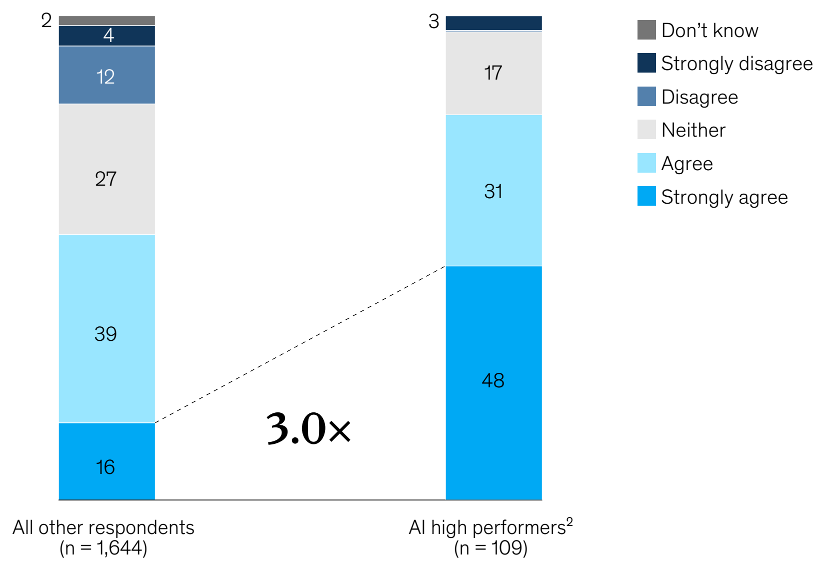
[1] To identify which organizational practices differentiate high performers, we conducted a relative weights analysis on 31 variables. This method estimates each variable's unique contribution to explaining high-performance status, accounting for correlations among predictors.

The findings also show that AI high performers' use of AI is more often championed by their leaders. High performers are three times more likely than their peers to strongly agree that senior leaders at their organizations demonstrate ownership of and commitment to their AI initiatives (Exhibit 7). These respondents are also much more likely than others are to say that senior leaders are actively engaged in driving AI adoption, including role modeling the use of AI.

Exhibit 7

High performers tend to have senior leaders who demonstrate strong ownership and commitment to AI initiatives.

Extent of agreement that senior leaders at respondents' organization demonstrate ownership of and commitment to its AI initiatives,[1]
% of respondents



Note: Figures may not sum to 100%, because of rounding.
[1]Question asked to what extent the respondent agreed that senior leaders in their organization demonstrate true ownership of and commitment to its AI initiatives (eg, championing them across the organization over time, role modeling, providing continued funding and engagement in regular budget reprioritization).
[2]AI high performers are respondents who reported that more than 5% of their organization's EBIT and "significant value" are attributable to the organization's use of AI.
Source: McKinsey Global Survey on the state of AI, 1,993 participants at all levels of the organization, June 25–July 29, 2025

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Efforts to mitigate AI risks are becoming more common as challenges materialize

Over the past six years, our research has consistently found that few risks associated with the use of AI are mitigated by most respondents' organizations. In our latest findings, the share of respondents reporting mitigation efforts for risks such as personal and individual privacy, explainability, organizational reputation, and regulatory compliance has grown since we last asked about risks associated with AI overall in 2022. (In 2023 and 2024, we asked specifically about gen AI–related risks.) Back in 2022, respondents reported acting to manage an average of two AI-related risks, compared with four risks today.

We also see that, largely, the risks that organizations are experiencing and are working to mitigate are connected: Respondents are more likely to say their organizations are mitigating each of the risks they have experienced consequences from. Overall, 51 percent of respondents from organizations using AI say their organizations have seen at least one instance of a negative consequence, with nearly one-third of all respondents reporting consequences stemming from AI inaccuracy (Exhibit 8). Inaccuracy is one of two risks that most respondents say their organizations are working to mitigate. However, the second-most-commonly-reported risk—explainability—is not among the most commonly mitigated.

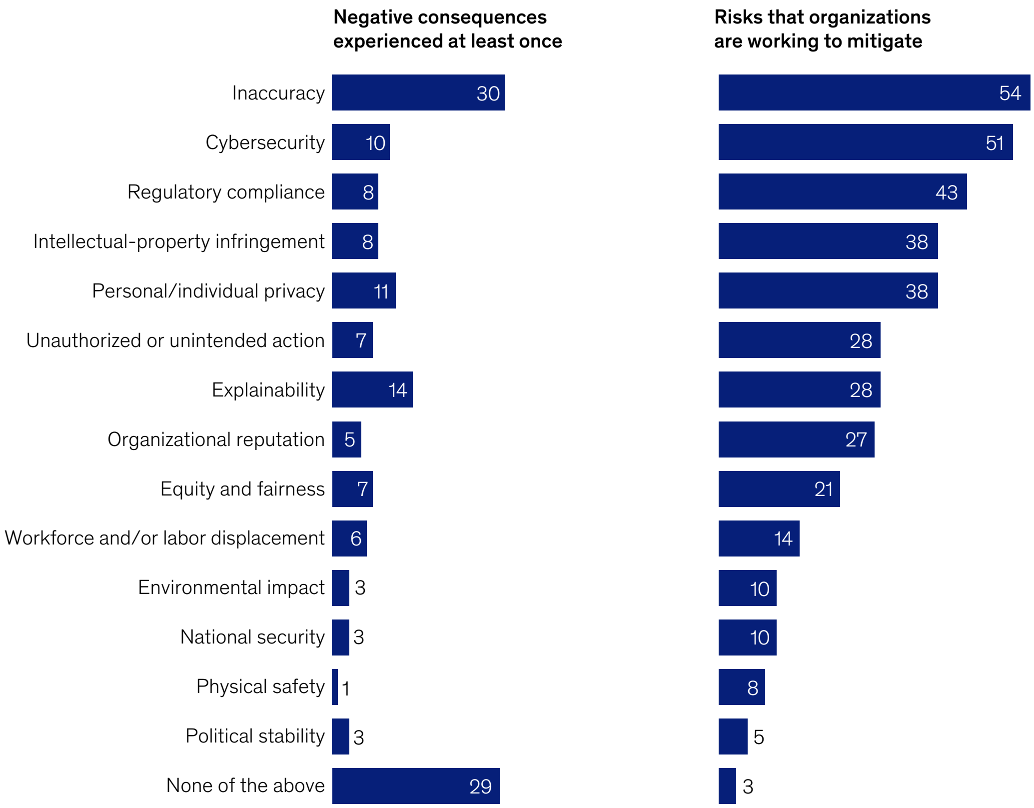
Respondents from AI high performers, who say their organizations have deployed twice as many AI use cases as others have, are more likely than others to report negative consequences—particularly related to intellectual

High performers are three times more likely than their peers to strongly agree that senior leaders at their organizations demonstrate ownership of and commitment to their AI initiatives.

Exhibit 8

Inaccuracy is the AI-related risk that respondents most often say their organizations have experienced and are working to mitigate.

Negative consequences and risk mitigation in the past year,[1] % of respondents (n = 1,753)



[1]Questions were asked only of respondents whose organizations regularly use AI in at least 1 function. Respondents who said "don't know/not applicable" are not shown.
Source: McKinsey Global Survey on the state of AI, 1,993 participants at all levels of the organization, June 25–July 29, 2025

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property infringement and regulatory compliance. High performers also try to protect against a larger number of risks.

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This article was edited by Heather Hanselman, a senior editor in the Atlanta office.

Section overview

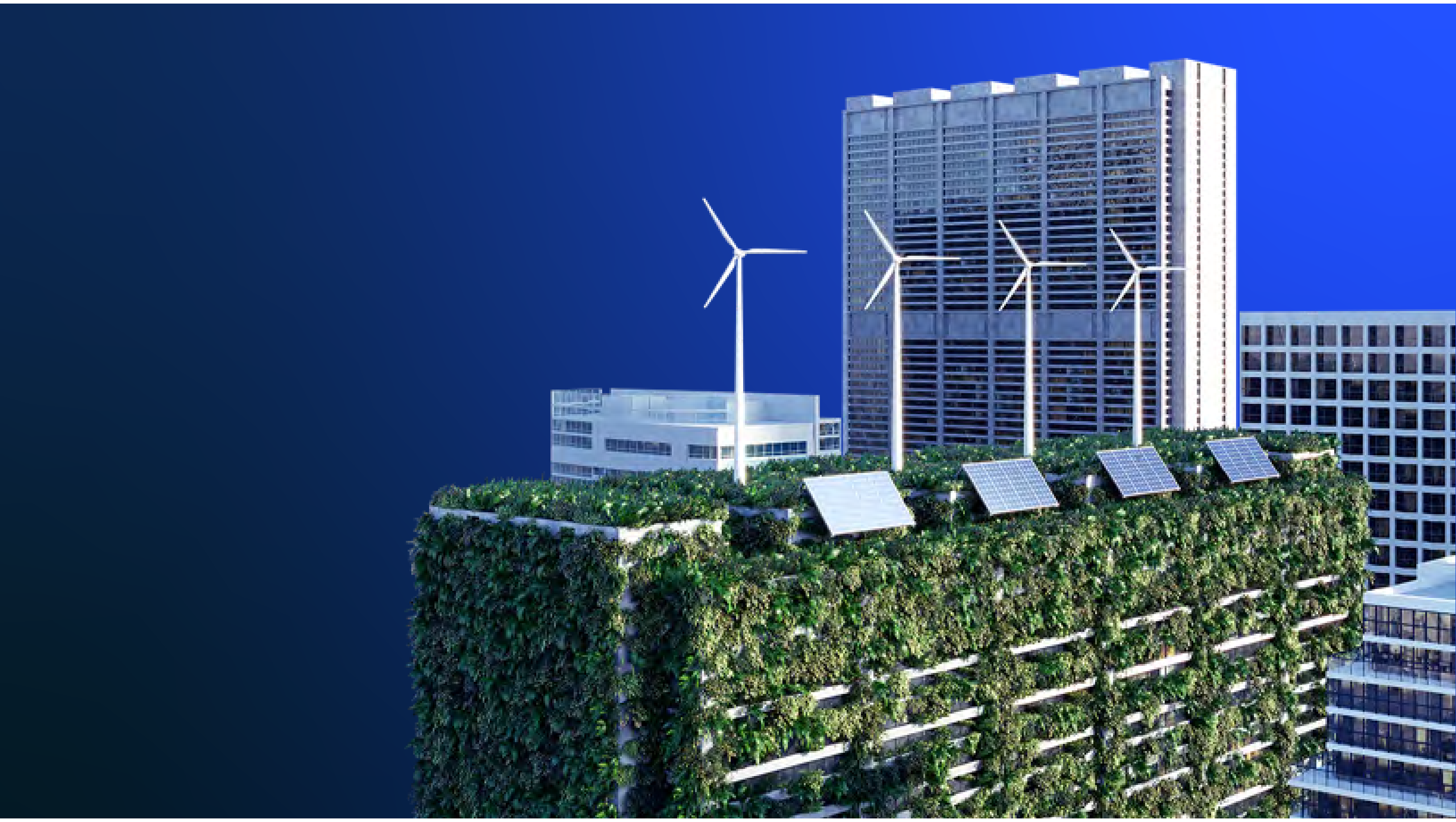
Read the full article

Extract

How incumbents can succeed in climate-driven growth investments

As incumbents navigate through cycles, early movers—and our hyper-scaling formula—offer insight into how to approach and successfully build climate technology businesses.

By Anna Granskog, Mark Patel, Rajat Gupta, and Stefan Helmcke



April 2025

While there has been a recent, notable shift in sentiment toward investing in climate solutions, it is important for companies to maintain a long-term, through-cycle view, as action to mitigate emissions is needed more than ever. Corporate investments in building new climate technology businesses have been rising consistently from 2019 to 2023, driving growth for those investing actively, but current deployment levels of low-emission technologies are at only 10 percent of the levels required to reach net zero by 2050.[1]

Incumbent companies, particularly in capital-intensive industries, can play a role in bridging these gaps. As some of the most well-established companies across the globe, these incumbents have inherent advantages including balance sheet size, organizational scale, experience in capital project delivery, and strategic and R&D capabilities. There has been recent turmoil—including announcements of delayed investment, abandoned projects, and watered-down corporate decarbonization commitments—but looking at the historical development from 2019 to 2023, there has also been a clear ramping up in investment. In the midst of recent headwinds, it is imperative for incumbents to also focus on profitability to ensure sustainable growth, as they navigate through cycles in climate technology businesses.

This report looks at the incumbent companies that have invested in new climate tech–driven businesses in the recent past to identify what can be learned from their experiences. We explore how incumbents can use our hyperscaling formula—based on our work on climate technology since 2022—to scale climate tech businesses. The report then analyzes some early movers to distill lessons learned, with a distinct set of questions for incumbents to assess their current position on and approach to climate-driven growth investments.

Incumbents' investment in climate-driven growth businesses

Our analysis found that investment into climate-driven growth businesses—made by 377 of the largest capital-intensive incumbents by market capitalization—increased sixfold between 2019 and 2023, to a cumulative total of $683 billion (Exhibit 1). The outlays included capital expenditure into climate tech–driven growth, R&D spending, equity investments, venture capital (VC) stakes, shifts in core portfolios toward climate technology, and spin-offs of climate tech–focused businesses (see sidebar "Our methodology"). These investments were centered on the 12 categories of climate technologies that could potentially reduce as much as 90 percent of total man-made greenhouse gas emissions.[2]

Incumbents in the power, automotive, and oil and gas sectors invested the most in climate-driven businesses over this five-year period. Two of those three sectors—oil and gas and automotive—also had the highest growth rates.

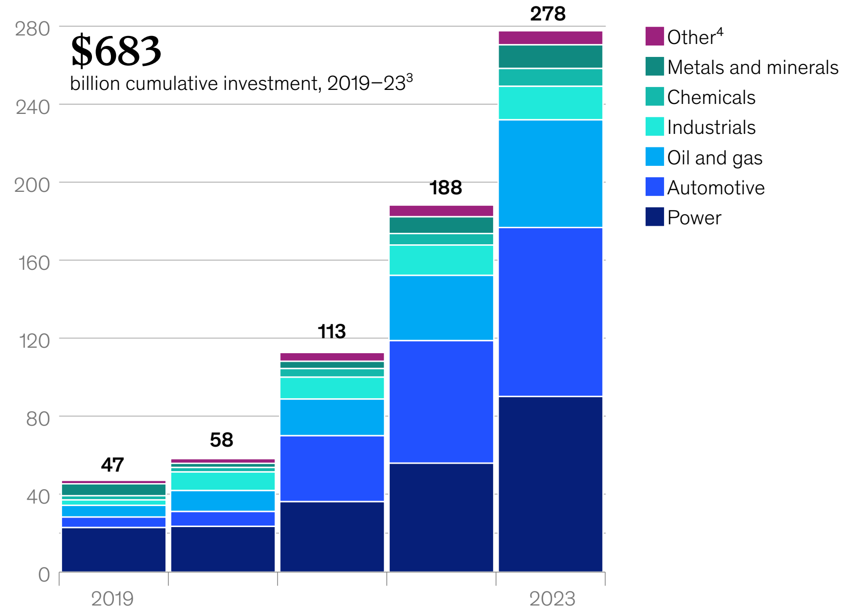
[1] "The hard stuff: Navigating the physical realities of the energy transition," McKinsey, August 14, 2024.
[2] "What would it take to scale critical climate technologies?," McKinsey, December 1, 2023.

Investment into climate-driven growth businesses increased 6x between 2019 and 2023 to a cumulative total of $683 billion.

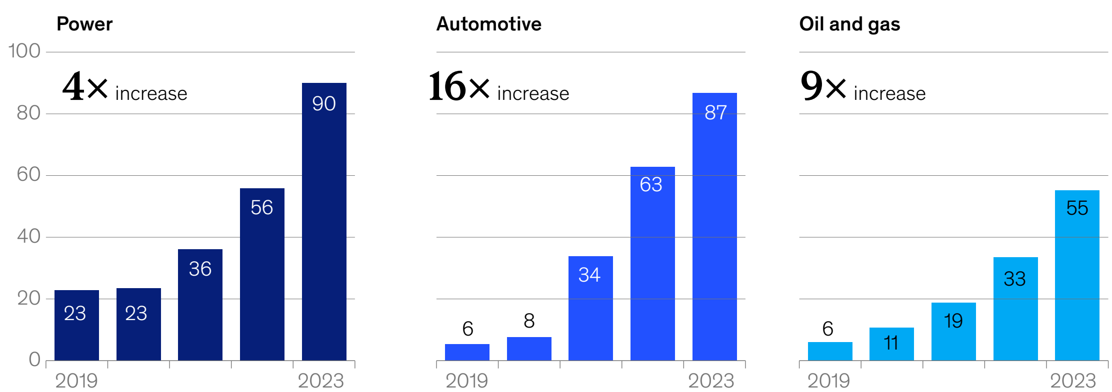
Exhibit 1

Climate-driven growth investments surged sixfold between 2019 and 2023.

Incumbent company investments in climate-technology-based growth, by sector,[1] $ billion (n = 377)[2]



Increase in climate-driven investments, 2019–23[1] $ billion (multiples)



[1]Investments in technology verticals as defined by McKinsey Platform for Climate Technologies, including capital expenditures, equity, R&D, spin-offs, venture capital arm investments, and significant portfolio-shifting investments, for 3 primary geographies.
[2]Top 377 companies by market capitalization as of Apr 2024, in capital-intensive sectors (namely aerospace and defense, automotive, chemicals, conglomerates, industrials, logistics, metals and minerals, oil and gas, power, and semiconductors). Primary geographies are Asia–Pacific (including 52 Chinese public companies and partially state-owned enterprises), Europe, and North America.
[3]Of the 377 companies we analyzed, 140 invested >$300 million annually in chemicals, oil and gas, metals and minerals, and power (>$100 million for other sectors such as aerospace and defense, automotive, high tech, industrials, logistics, and semiconductors). Amounts below these thresholds were considered negligible and not included in the total investment.
[4]Other sectors include aerospace and defense, conglomerates, high tech, logistics, and semiconductors.
Source: Environmental, social, and governance and corporate social responsibility reports; McKinsey Value Intelligence platform

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The automotive, oil and gas, and power sectors have been investing mostly in absolute dollars, although the proportion of these investments relative to the companies' total investment varies widely. The power sector spent on average 24 percent of its total investment on climate tech, the automotive sector spent 19 percent, and oil and gas, 8 percent (Exhibit 2).

A minority of the incumbents is leading these investments: 140 of the large companies we researched were responsible for a $683 billion investment, while the rest made minimal investments.

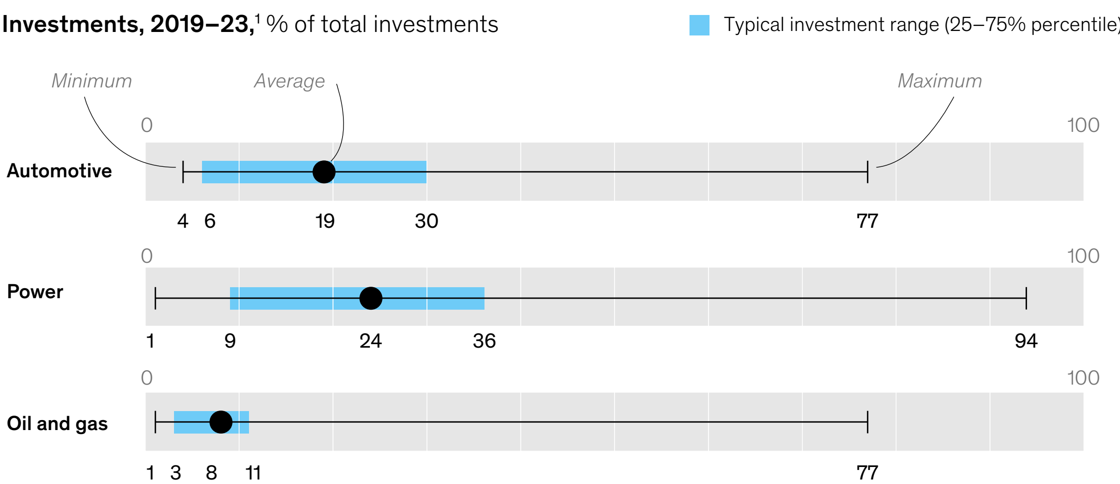
There is also a geographic concentration of incumbents investing in climate tech businesses. While spending has been accelerating across geographies, companies in Europe and Asia are driving approximately 80 percent of the incumbent investment in climate tech businesses.[3]

For some sectors, geography can also influence which technologies incumbents prioritize for investment, possibly reflecting differences in local industry, policy incentives, and regulatory mandates. For example, oil and gas incumbents in Europe have focused investment on renewable energy sources (RES) and sustainable fuels, while US incumbents have focused on investment in carbon capture, utilization, and storage (CCUS).

Exhibit 2

Climate technology growth investments by incumbents leading the charge are four to nine times the sector average.

Investments, 2019–23,[1] % of total investments



[1]Sector average ratio of climate-driven investments as percent of total investments. Only includes incumbents investing in new green businesses above threshold of $300 million between 2019–23 for energy sectors and $100 million for other sectors.
Source: Environmental, social, and governance and corporate social responsibility reports

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[3] Higher investment in Europe may be influenced by the EU Taxonomy reporting requirements.

In other sectors, there is less variation across geographies. For example, investments by power sector incumbents around the globe have been focused on RES, while those in the automotive sector have focused on electric vehicles (EVs) and battery manufacturing.

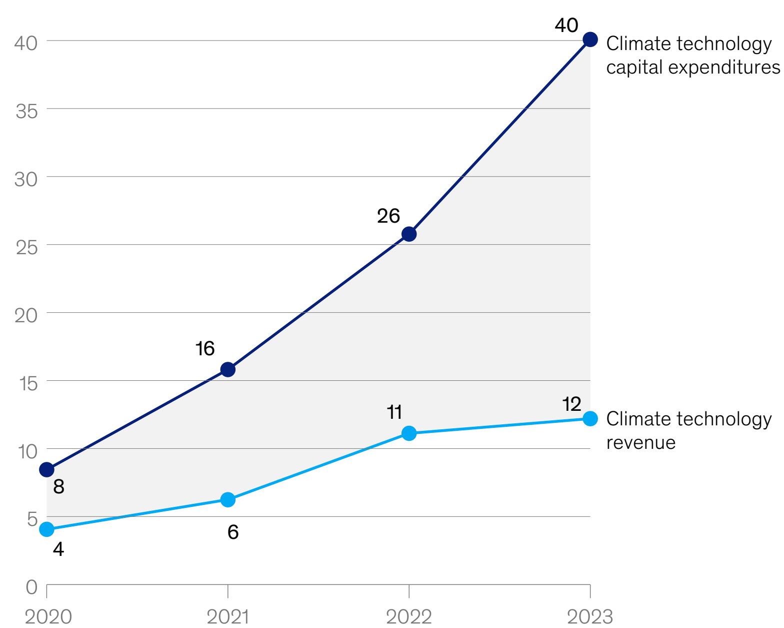
For some companies in our sample, we see that climate tech capital expenditure is already being converted into businesses with tangible revenues. The 17 European Union–headquartered incumbents (as referenced in the above sidebar) that have reported revenues for their climate tech businesses also reported an increased share of capital expenditures dedicated to climate tech from 2020 to 2023, as well as a rise in their average share of revenues from climate-driven businesses (Exhibit 3).[4]

Looking ahead to 2030, we expect a small subset of incumbents to continue driving investment in climate tech businesses. Fewer than 10 percent of the companies are responsible for 50 percent of the $1.3 trillion in announced investments in climate tech businesses between now and 2030. This subset of companies has also been responsible for 20 percent of climate-driven business investment over the past five years.

Exhibit 3

Climate technology investments are generating revenue.

Climate technology results as a proportion of company's total,[1] % (n = 17)



[1]17 out 40 companies based in the EU that separately report revenues from climate technology businesses in line with EU taxonomy requirements.
Source: Environmental, social, and governance and corporate social responsibility reports

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Incumbents' climate tech investments across different maturities

McKinsey's three horizons of growth framework[5] provides a structure for companies to assess and prioritize their growth opportunities and investments. Horizon one is the existing, core (often fossil fuel–based)

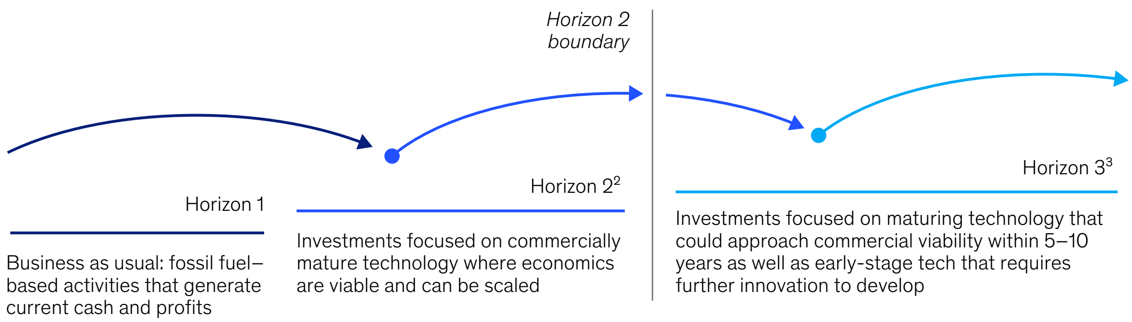
[4] Calculated by taking the average of the climate technology revenues over total revenues ratio for the 17 companies.
[5] "Enduring Ideas: The three horizons of growth," *McKinsey Quarterly*, December 1, 2009.

businesses that currently generate cash flow. Horizon two is emerging opportunities—the growth businesses to invest in now that will scale to generate profit. Horizon three businesses are the growth options for the future, such as research projects or pilot programs (Exhibit 4). Climate tech businesses can fit into all three horizons, although they skew toward horizons two and three.

Exhibit 4

Across climate technology businesses, we see two horizons of momentum.

Strategic horizons for climate technology[1] (nonexhaustive)



[1]Horizon classification of climate technology businesses can vary between regions depending on local resources, regulations, and economics.
[2]Solar and onshore wind in Europe, large nuclear, plant-based dairy, and heat pumps. Certain climate technology businesses (eg, solar and onshore wind businesses) are horizon 3 in certain geographies where the business model is still maturing.
[3]Carbon removals, lithium air batteries, small modular reactors, plant-based beef.
Source: McKinsey Platform for Climate Technologies; McKinsey analysis

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Incumbents' recipe for climate tech success

Although investing in a climate tech business comes with risk, and not all incumbents have been successful, it can create future value for shareholders. Emerging success stories include NextEra Energy growing into a top RES producer, LG Chem rising to the forefront of EV battery manufacturing, and MAN Energy Solutions accelerating the hydrogen value chain.

The approach depends on the maturity of the business

Across horizon two and horizon three businesses, successful incumbents understand the business case and take decisive action to improve it. They also drive execution excellence and judge the right time to invest and scale. We identified two archetypes for successful climate-driven business investments by incumbents: pioneer scalers and fast followers.

Pioneer scalers invest early in demonstrated but early-stage technology businesses (horizon three). They innovate to reduce cost and capital intensity, enable performance improvements that make climate technologies viable, shape supportive regulatory environments, find profitable niches, and often seek customers who are initially willing to pay a premium. They also inject substantial capital when the time is right—for example, when the business is ready to start shifting to horizon two. These incumbents benefit from early-mover advantages.

Fast followers invest in climate tech businesses that are ready for scaling with proven demand and business model (horizon two). The incumbents rely on their execution capabilities to build scale on an accelerated timeline to establish a strong market position. Although fast followers have the advantage of reduced technology risk, they need to build scale quickly.

Incumbents can win with either approach, depending on their risk appetite and ability to lead disruption and execute at pace.

Learnings from climate tech hyperscalers

Looking more closely at incumbents that have successfully built climate tech businesses, we see that the hyperscaling formula we introduced in 2022 applies to incumbents, with some nuances. All elements—such as leading with bold ambition, developing a cost and capital expenditure advantage, and proactively creating business ecosystems—are important. Incumbents also need to build on their inherent strengths, such as balance sheet size, organizational scale, strategic capabilities, existing customer base, and supplier relationships.

The formula provides a guide to help reduce risks and accelerate progress when investing in climate tech businesses, which can often go hand in hand if the business case is clear, the incumbent is ready, and the market timing is right. However, horizon two and horizon three businesses do require quite different approaches (Exhibit 5).

Exhibit 5

Horizon two and horizon three businesses require very different approaches.

Hyperscaling formula strategies for horizon 2 and horizon 3 businesses

		Fast followers for horizon 2 businesses	Pioneer scalers of horizon 3 businesses
1	Bold ambition in the right opportunity window	Industrialize and scale proven technologies, executing multiple projects in parallel	Get to scaling readiness across technology maturity, business model, market development, regulations, and business viability while stage-gating resources
2	Establish technology leadership	Commit to leading technology performance and drive toward full potential through continuous improvement	Within the chosen tech domain, work with multiple tech pathways in parallel to pick one with the best odds for successful scaling
3	Cost and capital expenditure advantage	Build leading project capabilities across design, sourcing, and execution benchmarked to best-in-class industry performance to ensure cost competitiveness	Target parity with gray alternatives in technology and manufacturing costs
4	Captive demand before scaling capital investments	Shape demand and capture leading share by leveraging customer relationships and propelling regulatory dialogue	Partner with customers to test products, derisk demand, and shape offtakes
5	Business ecosystems supply chain	Drive low cost and supply security, while maintaining quality, through partnerships or vertical integration	Collaborate with suppliers, customers, and downstream players that have a similar commercialization, cost-down, and scaling mission
6	Star executives and operating model to win	Establish dedicated entities to provide arms-length governance (such as spin-offs) powered by exceptionally strong execution leaders	Led by entrepreneurial leaders with broad networks and ability to deal with ambiguity; ring-fence team
7	Low-cost financing	Leverage external capital with different risk/return expectations, such as project finance and infrastructure funding, to accelerate portfolio development	Source financing for innovation and first commercial scale facility including equity investment, joint ventures, grants, and partner co-investment

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Lessons from early movers' successes

Incumbents that have decided to build climate-driven growth businesses can choose between being a fast follower or a pioneer scaler, depending on their risk appetite, endowments, path to profitability, and long-term value creation opportunity. Investments in climate tech businesses can be uncertain in the current environment of shifting policy, geopolitics, and macroeconomic conditions.

Tata Power

With a history that spans more than a century, Tata Power is one of the largest integrated power companies in India.

Both a pioneer scaler and fast follower in solar power, Tata Power began investing in climate technologies in the early 1990s. It established Tata Power Solar Systems (previously Tata BP Solar),[6] a JV with BP Solar, with the ambition to "enable solar everywhere." The company began manufacturing solar modules and cells and offering engineering, procurement, and construction (EPC) solutions for solar-power plants. It set up its first solar plant in 1996, and over the next few years, continued operating primarily at its Bangalore manufacturing facility.

As renewable energy became more competitive in the 2010s, Tata Power established its Tata Power Renewable Energy division to scale solar and wind power in India. The company scaled its renewable portfolio, and in 2016 it acquired Welspun Renewables Energy, which brought over 1 GW of renewable-energy capacity.[7] In the following years, its renewables-generation development slowed while it scaled its solar EPC business. It also promoted decentralization of power by venturing into EV charging, rural microgrids, solar pumps, and solar rooftops. In the past few years, it has renewed its focus on scaling the renewable-power-generation business, dramatically expanding in operating solar and wind capacity from 2.2 GW[8] in 2018 to 5.0 GW[9] in October 2024. Since 2018, almost 60 percent of its capital expenditure investment, amounting to over $4 billion, has been spent in the renewables business. The company has commissioned nearly 11.5 GW of solar projects across India with many first-of-its-kind projects such as floating solar, vertical solar, and solar carport. As of October 2024, it had a project pipeline of 5.9 GW.[10]

In 2023, Tata Power spun off its renewable businesses into Tata Power Renewable Energy Limited. The subsidiary of Tata Power has attracted a half-billion-dollar investment from BlackRock and Mubadala. In the past few years, Tata Power has also expanded its backward integration in solar manufacturing, setting up a new 4.3 GW solar cell and module manufacturing facility. Since 2018, Tata Power has seen fivefold growth in its market value. It is recognized as a top renewable-energy company and India's largest solar-rooftop company with over 2 GW of installations today.

The following are key takeaways from Tata Power's approach:

— Started investing early in climate technologies across multiple areas with stage-gated investment into solar components, EPC services, distributed rural generation, and rooftop solar

[6] "Tata BP Solar India Limited renamed as Tata Power Solar Systems Limited – a new beginning for India's pioneering solar company," Tata Power Solar Systems press release, August 30, 2012.
[7] "India's Tata Power to acquire Welspun Renewables," *Infrastructure Investor*, June 14, 2016.
[8] "Tata Power expands '#GharGharSolar' initiative to Chhattisgarh, aims to unlock state's solar potential," Tata Power Solar Systems press release, September 10, 2024.
[9] "Tata Power Renewable Energy Limited partners with IndusInd Bank to empower MSEs with solar energy financing solutions in India," Tata Power press release, October 29, 2024.
[10] "India's Tata Power to acquire Welspun Renewables," 2016.

- Selectively scaled investment when market or regulatory conditions were right, for example, in utility-scale solar and components manufacturing, and It reevaluated investment if the conditions were not right, for example, minimizing investment in solar-equipment businesses over two decades
- Deemphasized investing in businesses that did not scale, such as solar pumps
- Vertically integrated to create an in-house ecosystem to get to a low-cost position across generation, equipment, and EPC
- Partnered with multiple research institutions, academia, and start-ups to codevelop and deploy pilots for future energy solutions and services, including first-of-its-kind projects
- Set up dedicated JVs (Tata BP Solar) and conducted spin-offs (Tata Power Renewable Energy) to drive its scaling agenda
- Built and nurtured project execution capabilities with a focus on serving preexisting demand through its third-party solar EPC business
- Deployed deep homegrown talent—with at least 25 years of tenure and rotations around the business—supplemented with external hiring at senior levels to bring execution heft
- Leveraged its established brand and credibility to secure low-cost financing, for example, from BlackRock and Mubadala

These actions are closely aligned with four aspects of our hyperscaling formula: set a bold ambition in the right opportunity window, build business ecosystems, build a star executive team and winning operating model, and source low-cost financing.

How incumbents can position for success

Many large companies are dealing with both known and completely new uncertainties and economic pressures. Balancing the short-term agenda with investments in long-term growth and resilience is not easy, but the quality of decisions made in difficult times often makes winners stand out from the rest. Therefore, this is a timely moment for incumbents to take stock of their stance toward the growth opportunities in climate tech businesses. Based on our research, we have identified a few diagnostic questions that incumbents should ask themselves:

1. Are the current climate tech businesses growing rapidly enough, creating value or getting ready to create value?
2. If the focus is on horizon two businesses, is the scaling ambition of the businesses adequate across capital expenditures and M&A? Are these investments backed up with the necessary capabilities—project execution, supply, demand capture, et cetera?
3. If the focus is on horizon three businesses, are the businesses being treated as such, that is, being developed and readied for scaling across *all* aspects—technology, regulations, demand, supply chain? Are there enough opportunities across R&D and relationships with or stakes in technologies?
4. Is the timing to move a business from horizon three to horizon two being judged explicitly and carefully, particularly by pioneer scalers? Are all the conditions in place—market readiness, technology maturity, regulatory support, and competitive landscape—before making substantial investments?

5. Is the overall aspiration bold enough, and capital allocation between legacy and new businesses commensurate? Are each of these new businesses being governed and staffed in the manner that is right for them?

Companies that are contemplating stepping up their growth investments would benefit from asking the following questions:

1. How are our core businesses impacted by the energy and materials transition—compliance requirements, regulatory frameworks, customer expectations, and supply shifts?

2. What are real opportunities for us? What are the adjacencies to consider from among the 12 major climate tech groups? Given current capabilities (technologies, customers, supply base, et cetera) and the license from stakeholders, what are realistic opportunities to pursue?

3. What is the right approach for scaling—acquisition or organic build? Should we focus on being a fast follower or play the long game as a pioneer scaler?

4. What are the capability gaps for building the new business? How should these capabilities be built?

5. What governance, capital allocation approaches, and other conditions are needed for us to stay the course, given the long gestation, huge capital intensity, uncertainty, and regulatory dependence of these businesses? How different are they from our current approaches?

With deployment levels of low-emission technologies at only 10 percent of the levels required by 2050 to reach net-zero emissions, there is space to explore climate tech–focused business building.[11] Climate technologies have the potential to create significant value over the next decade—McKinsey has estimated the climate tech market could offer $9 trillion to $12 trillion in annual sales by 2030. Even with some delays, the market opportunity remains significant for technologies that reach economic and technical scaling readiness, through cycles. Building on momentum over the past five years, incumbents can take a leading role in accelerating these climate tech businesses in the large white space that remains for horizon two businesses and the next wave of horizon three businesses.

While we recognize that incumbents are at different stages in their climate journey, this report shows examples of how some have built successful climate tech businesses. Looking across industries and geographies, the time is right for all incumbents to ask themselves if there are climate-driven opportunities that they should explore to secure healthy growth for the future. And for those companies that decide to pursue these opportunities, there are lessons to learn from those that went before.

[11] "The hard stuff," McKinsey, 2024.

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The authors wish to thank **Dina Ibrahim**, **Harry Bowcott**, **Jack Owens**, and **Oyegbe Ibhanesebhor** for their contributions to this report.

Section overview

Read the full article

Extract–India insights

Women in the Workplace 2025:

India, Nigeria, and Kenya

Original research on women's participation in the formal workforce reveals systemic challenges preventing women from reaching leadership roles at scale. This extract highlights India-specific insights and how employers can accelerate gender diversity.

This report is a collaborative effort by Kartik Jayaram, Mayowa Kuyoro, Sarah Gitlin, Tracy Nowski, and Vivek Pandit, with Marilyn Kimeu and Olivia Robinson, representing views from the Financial Services, Public Sector, Social Sector, and Healthcare Practices.

May 2025

Women constitute half of the global working-age population,[1] yet their representation in the formal sector, especially in leadership roles, remains low, with some estimates showing that women hold less than a third of leadership positions in the formal sector globally.[2] This underrepresentation not only undermines their economic power and mobility but also impedes countries' inclusive growth. Gender diversity in the workforce is not merely an issue of equity; it is a crucial driver of social and economic progress. Societies that fail to fully harness the capabilities of half their talent pool are missing vital opportunities for growth and development (see sidebar "For future exploration in India, Nigeria, and Kenya: The relationship between gender diversity and corporate financial performance").

Since 2015, McKinsey has conducted annual original research on women's participation in the formal workforce in the United States and Canada through our *Women in the Workplace* report series, in partnership with LeanIn.Org. This report extends that pioneering research to new countries—India, Nigeria, and Kenya—for the first time, addressing a major data gap and deepening our understanding of women's representation in the formal sector in these critical markets. We are grateful to the Gates Foundation and Co-Impact for the financial support they provided so we could carry out this new research, and to LeanIn.Org for their vital input to the methodology in the foundational series, which helped inform this report.

For future exploration in India, Nigeria, and Kenya: The relationship between gender diversity and corporate financial performance

It is important to note that while several studies have identified a correlation between gender diversity and higher levels of corporate financial performance, these studies typically use a correlational method of analysis, so they were not designed to establish a causal relationship between the variables. Experimental and quasi-experimental studies, particularly in our focus countries of India, Nigeria, and Kenya, will be needed in the future to explore whether there is a causal relationship—and, if so, to what magnitude.

That said, we also acknowledge that, independent of whether gender diversity can be proved to be a positive causal driver of higher levels of corporate performance, significant individual, household, and societal benefits arise from women's greater participation and advancement in the formal workforce. This is why we consider this research so important. Although there is growing attention to gender diversity in the workplace, a major gap persists in terms of data on women's participation in various ranks of the formal sector, particularly in emerging markets such as India, Nigeria, and Kenya. This original research is a contribution to start filling that gap.

[1] "Working-age population by sex and age (thousands)," ILOSTAT, accessed September 21, 2024.
[2] "Gender equity in the workplace: Breaking down gender barriers and biases," LinkedIn, accessed September 23, 2024.

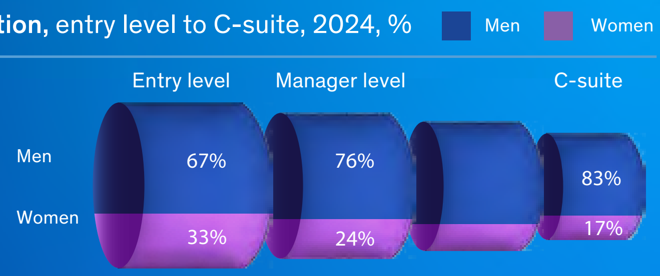
Critical findings at a glance

India

Women hold only **one-third** of entry-level roles, with challenges in advancing to managerial roles

Women's representation drops **9 percentage points** from **33%** at the entry level to **24%** at the manager level

Gender representation, entry level to C-suite, 2024, %



While the larger report also focuses on Nigeria and Kenya, this extract highlights the India-specific insights.

Summary

Across India, Nigeria, and Kenya, women are far from achieving parity in representation; entrenched, systemic challenges prevent women from reaching leadership roles at scale. Our research into these challenges and how organizations across the countries approach gender diversity revealed four major findings. First, women face different challenges across the three countries in terms of entering the workforce and advancing into leadership roles. Some countries struggle to attract women into entry-level positions (India and Nigeria), some battle a broken rung at the step up to manager (India to the largest extent), and some struggle with promotion at more senior levels (Kenya to the largest extent). Second, these challenges also vary significantly by sector: For example, in the legal sector in Nigeria and Kenya, women's representation is fairly high at the entry level and holds steady across the board. Third, some policies and practices, including those related to mentorship and sponsorship and to flexible work arrangements, are more correlated to advancing gender diversity than others, but their effective implementation is critical to realizing outcomes. Last, there is consistently little measurement and accountability for gender diversity outcomes across all three countries.

Below, we explore these findings in more detail and propose three actions employers can take to accelerate progress toward gender equity.

1. Women experience distinct challenges in the workforce across India, Nigeria, and Kenya and face a narrow path to leadership in all three countries

While women's representation is the highest within each country at the entry level, it ranges significantly across countries, from 41 percent in Kenya to 33 percent in Nigeria and India. From here, women face distinct challenges across the three countries, but the end result is the same: Women's representation in senior leadership roles is ultimately low across all three countries, with less than 30 percent of C-suite positions held by women. These figures are not so dissimilar from executive-level representation seen in the United States and Canada, where women hold just 29 percent of C-suite roles.[3]

[3] *Women in the Workplace 2024: The 10th-anniversary report*, McKinsey, September 17, 2024.

These findings underscore a shared challenge: Regardless of the starting point, systemic barriers prevent women from advancing to leadership roles at scale. Consequently, women's representation in the formal sector, especially at senior levels, remains far below their proportion in the general population. However, the fact that the specific barriers differ across countries is in some sense a positive sign. It indicates that these problems are not intractable; there are actions that work to improve representation. Employers, then, could learn from organizations and sectors that have made progress at attracting, retaining, and advancing women at particular levels.

Women's representation in India is low at the entry level and drops sharply at the move up to manager, but women who rise that far face a somewhat more equitable path from manager on
Obstacles emerge early, characterized by low recruitment of women into entry-level roles, high attrition already at the entry level, and limited promotions for women to move up from entry-level positions. Though women represent 48 percent of enrolled university students in India,[4] they make up just 33 percent of the entry level and 24 percent of the manager level. These drops are quite significant for the early career stages. Beyond manager, the decline in representation slows substantially, decreasing by an average of two percentage points per level. Although challenges persist as women move up in India, they are not as stark as those faced at the very start of women's careers.

2. Examining systemic barriers: Women's representation trends across key sectors reveal divergence across the sectors and countries

Looking at three sectors as examples reveals substantial differences in women's representation patterns, indicating potential lessons that could be implemented across sectors.

Financial services. The financial services sector across all three countries reveals a common trend of relatively high representation of women at entry levels but significant drop-offs at senior leadership levels. In India, women make up 31 percent at the entry level, but this decreases to just 13 percent at the C-suite.

Healthcare. Similar, though not quite as steep, pipeline drop-offs are likewise seen in healthcare. Despite high initial representation, women's representation drops after the early stages of the funnel.

Legal. Across India, Nigeria, and Kenya, the legal sector stands out for having relatively high levels of women's representation throughout the pipeline, consistently maintaining representation above the national average at every level. In India, women make up 51 percent of the entry level, but this drops to 32 percent at the C-suite—a more significant decline than the two other countries' legal services sectors.

3. Certain policies and practices are correlated with better outcomes in women's representation, but their successful implementation and uptake is key

Many organizations have taken the initial steps to address the underrepresentation of women in the workplace by adopting multiple policies and practices focused on increasing gender diversity. Our research found that, on average, the organizations participating in our survey had adopted about 40 different policies related to gender diversity. Notably, organizations with the lowest women's representation are most likely to lack comprehensive gender diversity policies, underscoring a correlational link between adoption of certain policies—categorized as "differentiator policies"—and better gender outcomes (see sidebar "A closer look: Baseline and differentiator policies").

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[4] "Higher education institutions as per AISHE," AISHE, accessed September 21, 2024.

However, there were still companies with low levels of women's representation, even when they had these policies in place, suggesting that the prevalence of gender diversity policies is not enough. How effectively these policies are implemented may explain the variability in outcomes, underscoring the importance of execution.

A closer look: Baseline and differentiator policies

We analyzed 108 policies, with two broad categories emerging based on their prevalence in the companies considered.

Baseline policies. A core set of gender diversity policies has become nearly universal, with at least 70 percent of companies adopting the same 15 core "baseline" practices. These baseline policies and practices focus on safety, security, and bias mitigation. Research findings indicate that while these baseline policies may be necessary and are more common in the top quartile of organizations for women's representation than in the bottom quartile, they are not sufficient for advancing positive outcomes for women in the workplace. Some of these policies are mandated by government in certain countries, which helps explain their widespread prevalence.

Differentiator policies. This is a clear set of policies that have low prevalence today but are positively correlated with higher levels of representation and advancement of women. These include mentorship and sponsorship programs, flexible work arrangements, and family and personal care policies such as paid sick and menstrual leave. Companies in the top 75 percent for women's representation are 33 percent more likely to have adopted mentorship and sponsorship programs, 34 percent more likely to offer flexibility policies, and 23 percent more likely to provide family and personal care policies compared with those in the bottom quartile. While we cannot establish a causal relationship between these policies and higher levels of women's representation based on this methodology, these policies are associated with improved outcomes for women. Flexible work and family support—including training managers on the best way to support employees using these programs—are associated with higher promotion rates for women, particularly in middle management.

4. Measures of progress and accountability mechanisms are lacking

Although 77 percent of companies indicate that their CEOs prioritize gender diversity, the shift from commitment to accountability remains limited. One in three companies does not track metrics such as hiring or promotion rates by gender, and more than 70 percent of organizations do not monitor the efficacy or the participation rates of programs aimed at promoting gender diversity.

In terms of accountability, only 67 percent of employers report that someone within their organization is responsible for progress on gender equity. Furthermore, 39 percent of members of senior leadership lack designated responsibility for driving gender diversity, and only 15 percent of boards are involved in ensuring accountability for driving gender diversity outcomes.

The lack of measurement and accountability likely contributes to companies often failing to achieve the outcomes they aspire to through their gender diversity policies and practices.

Moving forward: Three steps could help employers accelerate progress on advancing gender equity

Achieving gender diversity goes beyond raising awareness; it demands decisive action to open doors at the entry level, support advancement, and dismantle barriers to senior leadership. Employers can consider three steps to kickstart their journey to a more inclusive workforce.

Diagnose: Identify the specific gender diversity challenges in the organization's talent pipeline. Only two-thirds of companies surveyed track gender inclusion metrics. To effectively address gender diversity challenges within an organization's talent pipeline, organizations need to identify the precise areas where the pipeline issues lie. The analysis should determine if the challenges are related to attraction, retention, or promotion at each level where representation is low or there is a notable drop. This will allow organizations to craft targeted strategies for improvement and best use scarce resources to improve women's representation.

Design: Check presence, utilization, and implementation of policies, and evolve practices accordingly. Leaders should determine what, if any, baseline or differentiator policies the organization has in place as well as the uptake and utilization patterns of the policies to determine if they are reaching the intended segments of employees and achieving their objectives. Once they understand this, leaders could determine if there are additional policies required to address the identified challenges and close remaining gaps—and consider experimenting with more-innovative approaches.

Monitor: Enhance tracking and accountability structures. The presence of a policy "on the books" does not alone create impact; the success of such policies relies on effective implementation and ongoing evaluation. Employers could benefit from treating gender diversity initiatives as a strategic priority just as they would any other business imperative, actively tracking progress and incorporating results into review processes. Yet just 15 percent of boards play a role in reviewing progress on gender diversity metrics. This underscores the importance of organizations adopting more-structured and formalized types of monitoring, given that this measurement and reporting provide a foundation for living up to companies' goals for delivering on their talent strategy aspirations related to women's representation.

Though women represent 48 percent of enrolled university students in India, they make up just 33 percent of the entry level and 24 percent of the manager level.

India's formal private workforce

The analysis of India's private sector via 77 organizations reveals a dual-edged reality for women (Exhibit 1). At the entry level, women appear to be stalling at the starting line, where they experience lower entry rates and higher attrition and career stagnation compared with their male counterparts. However, for the relatively small percentage who move into managerial roles, their ascent to executive leadership has fewer hurdles, with smaller declines in representation than those seen when transitioning from mid-level to more senior positions.

At the board level, women experience relatively higher representation than at the senior vice president (SVP) or C-suite levels, a trend likely influenced by the Companies Act of 2013 and subsequent regulations from the Securities and Exchange Board of India (SEBI). The Companies Act mandates that specific categories of companies—namely, listed companies and public companies with a certain paid-up capital—must include at least one woman director on their boards. Building on this framework, SEBI introduced rules that reinforced the importance of gender diversity by requiring listed companies to adhere to the one-woman-director mandate.

Exhibit 1

The analysis for India includes 77 organizations across industries.

Overall statistics

77 Organizations

880,795 Total employee count for all organizations surveyed

Industry statistics, number of organizations by industry		**Total employee count for all organizations surveyed**
Law, professional and IT services[1]	20	360,458
Construction, light manufacturing, and transportation	17	152,329
Consumer goods and services	12	45,796
Financial services	8	202,529
Education and social sector	8	202,529
Healthcare and pharmaceuticals	8	45,899
Agriculture and agribusiness	2	5,804
Extraction, energy, and heavy manufacturing	2	8,159
Total	**77**	**880,795**

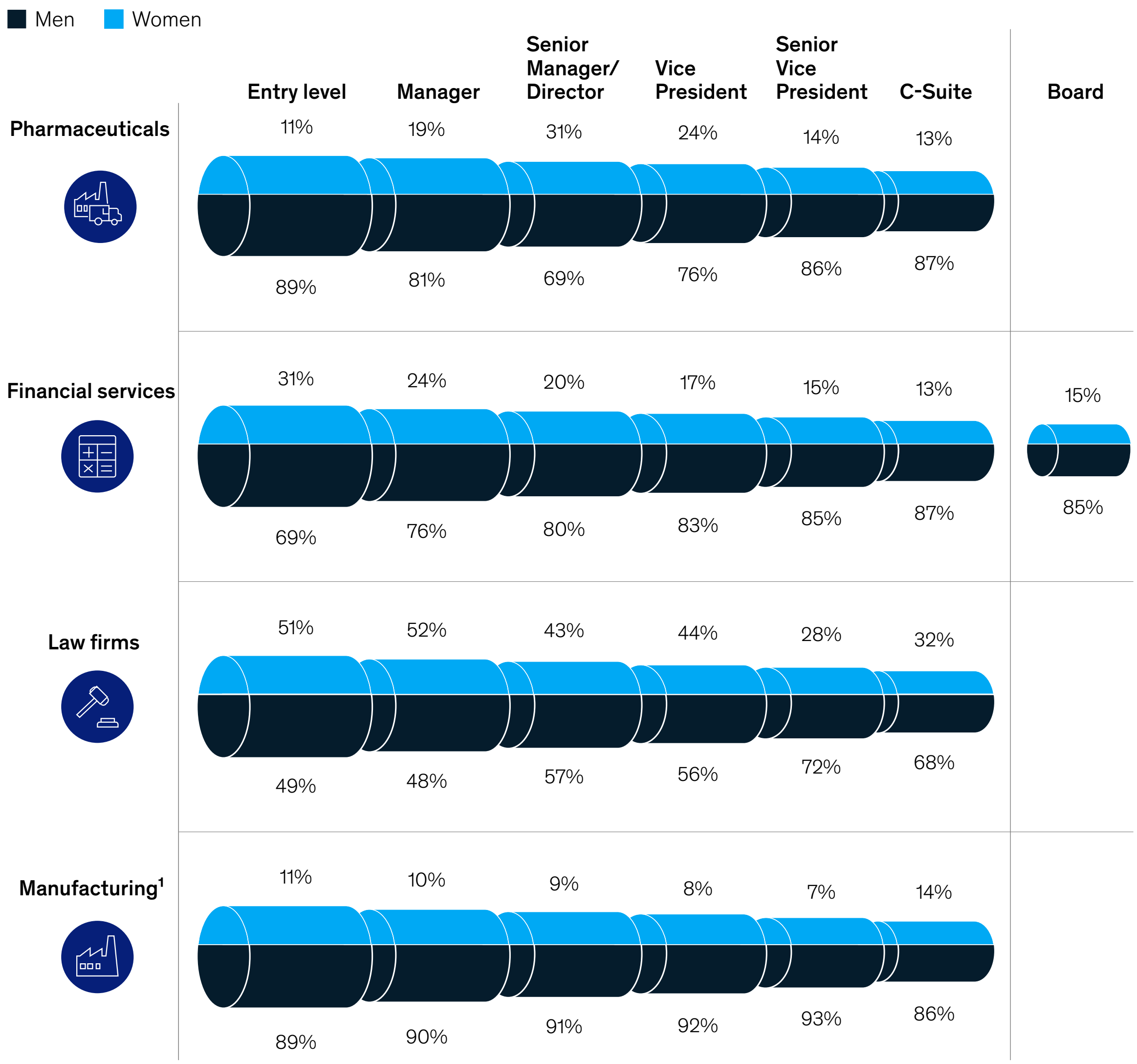
Note: These figures reflect the raw distribution in the sample; however, the sample has been weighted by industry to align with the distribution of the formal workforce in the country, as estimated by the International Labour Organization.
[1]The employee numbers presented in text for the legal sector differ from those presented here for law, professional, and IT services because the legal sector includes only law-focused organizations and excludes professional and IT services.

McKinsey & Company

Exhibit 2

Women’s representation varies significantly by sector

Gender representation in India, disaggregated by seniority level, Percent



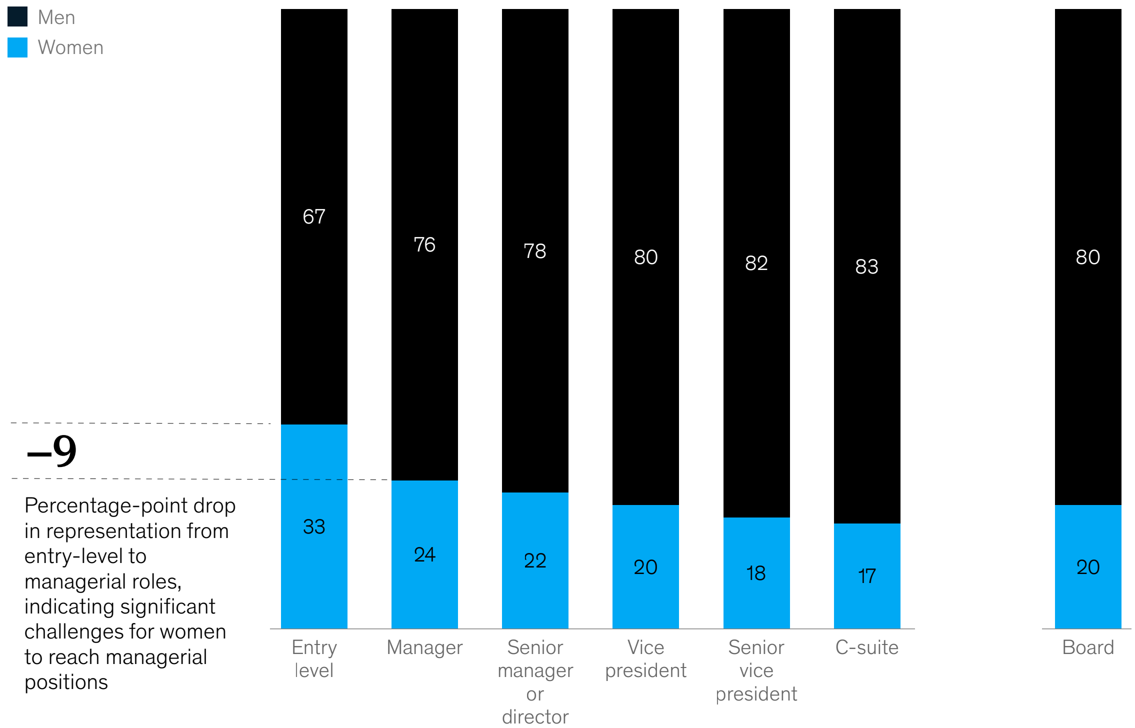
[1] Construction, light manufacturing, and transportation
Note: In cases where figures are not provided, the sample size was deemed too small to be representative of the entire sector, and those data points were therefore excluded.
Source: McKinsey & Company original survey conducted between March - June 2024

McKinsey & Company

Exhibit 3

In India, women's representation starts low and drops sharply from entry-level to managerial roles.

Gender representation in India, by seniority level, 2023, %



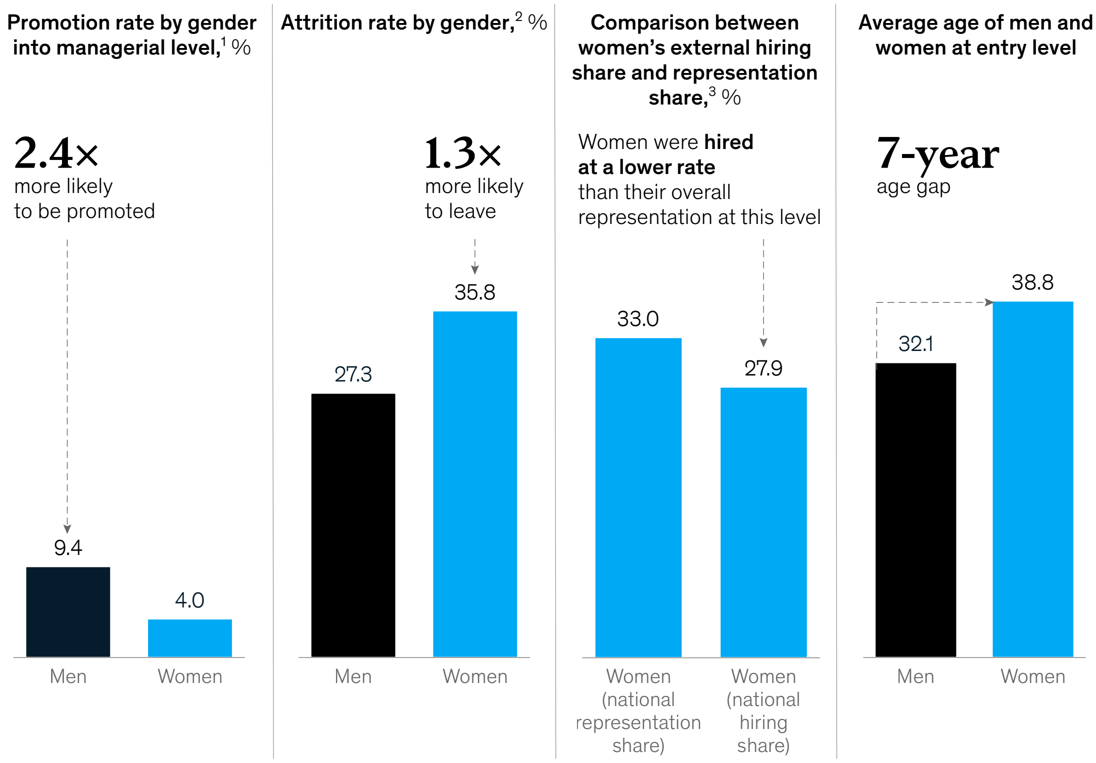
Source: McKinsey survey conducted March–June 2024

McKinsey & Company

Exhibit 4

Women in India experience lower promotion rates, higher attrition, and lower hiring rates at the entry level.

Gender diversity outcomes at the entry level in India, 2023



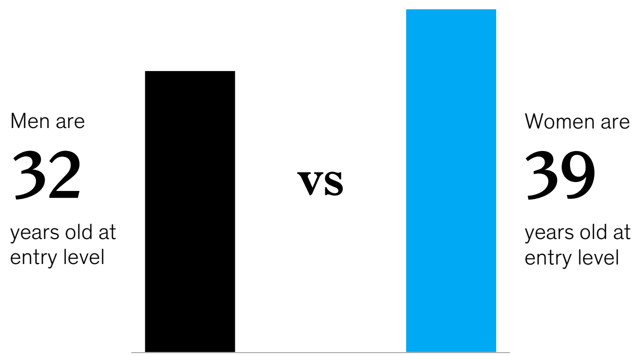
[1]Share of men and women entry-level employees promoted to manager.
[2]Share of men and women entry-level employees that left the organization during the year.
[3]Share of entry-level employees that are women compared with share of new entry-level hires that are women.
Source: McKinsey survey conducted March–June 2024

McKinsey & Company

Exhibit 5

At the entry level, there is a seven-year age gap between women and men.

Average age at entry level in India, 2023



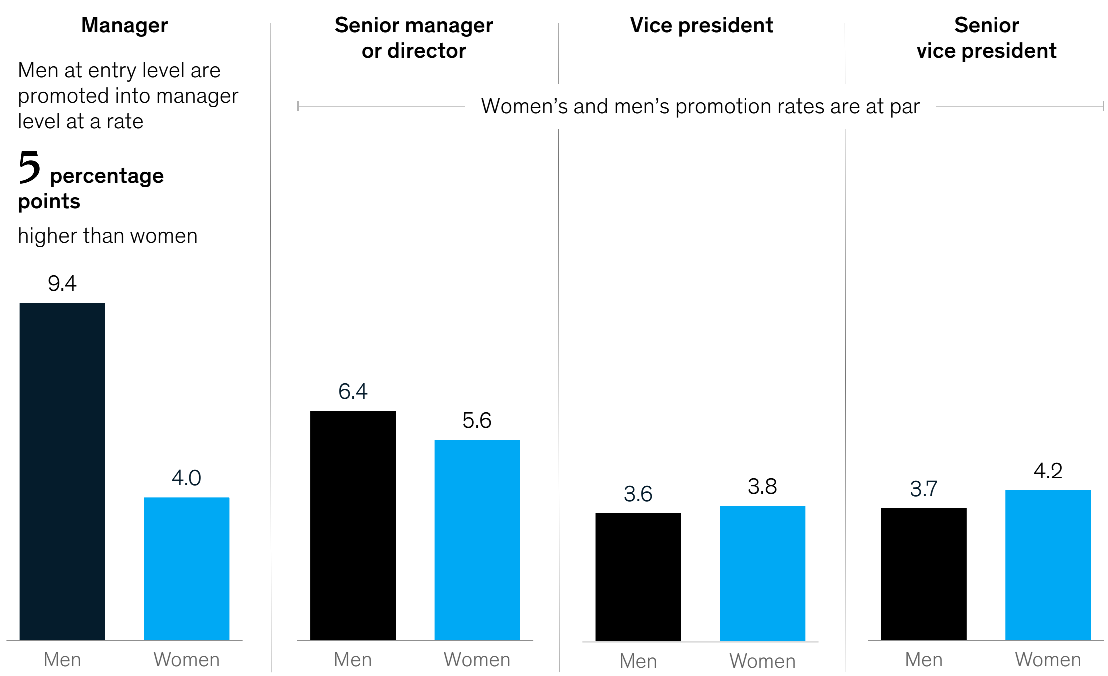
Source: McKinsey survey conducted March–June 2024

McKinsey & Company

Exhibit 6

Men and women in India are promoted at similar rates at the senior manager, vice president, and senior vice president levels.

Promotion rate by gender in India (from previous level), by seniority level— manager to senior vice president, 2023, %



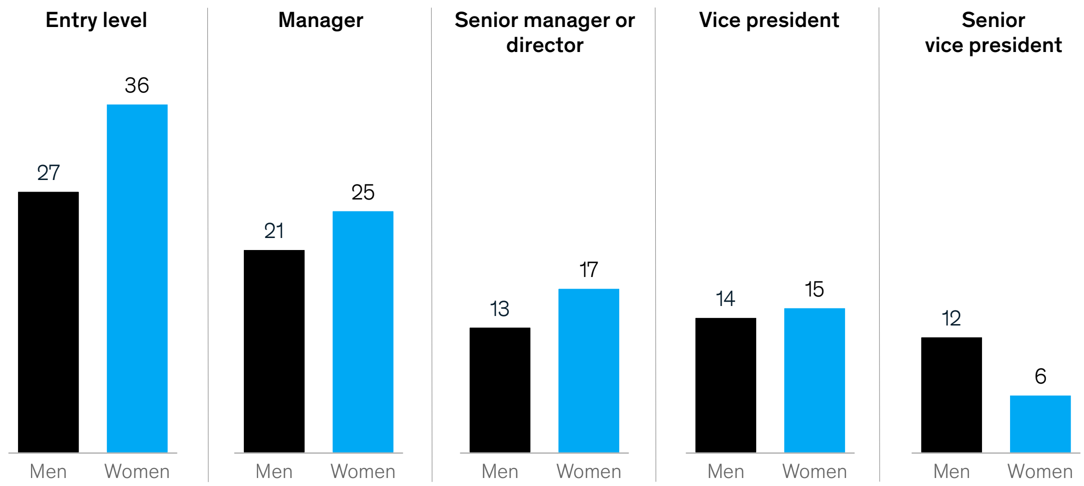
Source: McKinsey survey conducted March–June 2024

McKinsey & Company

Exhibit 7

The attrition gap between men and women in India narrows at more senior levels—and even reverses for senior vice presidents.

Attrition rate by gender in India, by seniority level, 2023, %



Source: McKinsey survey conducted March–June 2024

McKinsey & Company

Conclusion

In India's private sector, women encounter significant structural barriers right from the outset; only one in three positions is held by a woman at the entry level, although this varies across sectors. At the managerial level, women hold fewer than one in four spots— marking a nine-percentage-point decline in representation. Despite these initial hurdles, those who persevere often encounter a somewhat less obstructed path to senior leadership, with a notably smaller decline in representation between managerial roles and the C-suite. This underscores the critical importance for employers to foster an environment that not only recognizes but also actively nurtures the potential of women from the start of their careers.

This report is a collaborative effort by **Kartik Jayaram, Mayowa Kuyoro, Sarah Gitlin, Tracy Nowski,** and **Vivek Pandit,** with **Marilyn Kimeu** and **Olivia Robinson,** representing views from the Financial Services, Public Sector, Social Sector, and Healthcare Practices.

Section overview

Spotlight

India's leading value creators speak about the journey from ambition to impact

Contents page

Leading Asia

Mukesh Ambani

Chairman and Managing Director,
Reliance Industries

June 2025

Read the full interview

Mukesh Ambani’s bold ambitions: Building businesses of the future

The chairman of one of India’s largest and most profitable private sector companies speaks to McKinsey’s Gautam Kumra about how his focus on vision and his unique leadership style have grown a small textiles business into a large conglomerate at the forefront of innovation.

This interview is part of the Leading Asia series, which features in-depth conversations with some of the region’s most value-creating leaders on what it takes to realize bold ambitions and take them further.

Gautam Kumra: How do you go about building a new business?

Mukesh Ambani: At the absolute core of Reliance’s DNA are five or six very important values. Some are domain values. Domain values are like first principles. We think about our first principles for the group as a whole and then try to understand and learn the first principles for every individual business. At the beginning of building any new business, we ask ourselves: “What is the most critical need for India’s development, and how can we fulfill it at scale and over a long arc of time?” That remains a fundamental piece of Reliance. We also have no hesitation in believing we can build businesses of the future. With our experience, we can extrapolate the future 20 years from today. That’s why we didn’t hesitate to build polyester first or to build 4G before its time. The same is now true about our newest business venture in new energy. We are building one of the world’s largest manufacturing ecosystems for green and clean energy. It covers solar, batteries, hydrogen, bio-energy and much more. This is our contribution to saving planet Earth from the looming climate crisis.

Gautam Kumra: You have taken many significant risks when leading Reliance, such as the $25 billion investment into an untested market with the launch of Reliance Jio in 2016. Now we’re talking of a valuation of $100 billion or so for Jio. How do you manage the risk that comes with bold ambition?

Mukesh Ambani: We’ve always taken big risks because, for us, scale is important. The biggest risk we have taken so far was Jio. At the time, we were investing our own money, and I was the majority shareholder. Our worst-case scenario was that it might not work out financially, because some analysts thought India wasn’t ready for the most advanced digital technology. But I told my board, “In the worst case, we will not earn

If you are clear about your goal, and you know how to use technology, then you will achieve your North Star.

much return. That's okay because it's our own money. But then, as Reliance, this will be the best philanthropy that we will have ever done in India because we will have digitized, and thereby completely transformed, India."

We are believers that, at the end of the day, you come without anything into this world, and you leave without taking anything with you. What you leave behind is an institution. My father said to me, "Reliance is a process. It's an institution that should last. You have to make sure that Reliance lasts beyond you and me." That's my commitment to him—that Reliance will last beyond us. In 2027, Reliance will celebrate its golden jubilee. But I want Reliance to continue to serve India and humanity even after completing 100 years. And I am confident it will.

That's the mindset we have when we say we believe in the businesses of the future. If you think about the Reliance of the 1960s and '70s, or of the 2000s and 2020s, it's a completely different organization now. That's because the world changes every five or ten years. It goes against everything that we learned in business school, such as not integrating across the value chain. We have challenged all of those things. What has also happened is that, as we chase the opportunities of technology into the future, some of these opportunities become bigger than our existing opportunities. And we cannot leave them alone.

Gautam Kumra: Technology has been front and center of your operating model as a leader; many of your largest investments have been technology bets. How do you envision technology's impact on Reliance over the next decade?

Mukesh Ambani: The fact that the technology landscape is changing at an exponential speed is self-evident. I think that the big challenge will be in the confidence of our next generation to succeed in this new landscape. When we grew up, we were the users of technology, and it was clear that we had to license technology from abroad to ensure high quality. But we were subjugated to so many licenses. It was also high risk because if a plan didn't work, you could lose your shirt. I used to push my leaders by saying, "We have to be owners of technology. We must be innovators."

The change now for Reliance is that we are going to be a deep-tech and advanced manufacturing company. We started with telecom. In 2021, we launched 5G. We built everything ourselves, end to end—the core, the hardware, and the software. We used Ericsson and Nokia to help us on 20 percent, just to make sure that the 80 percent that we put in was good. I also wanted to make sure that our people were not too full of themselves. I told them, "You have to be better than these guys." And we are now. That gives us unique capabilities today that we are launching in the market. As it's our own technology, we will now be able to offer unique services.

That kind of movement is what we have seen in all our businesses. What people don't realize is that when you make OpenAI or other [artificial] intelligence, the same 500 people will work on it. Today they work for you, and after tomorrow, they work for someone else. They also have a purpose, and they say, "As long as we align with the company's big purpose, we'll come to work for you." We are doing that continually now. Within the AI field, we have created our purpose by saying, "Our big purpose is to solve the complex problems before society and create wealth for the nation and the people. For this, we need not go into the high-risk GPU game. Let's do everything downstream." This has a compelling appeal on many bright minds. As a result, we are attracting the best people. If you are clear about your goal, and you know how to use technology, then you will achieve your North Star.

Section overview

Ashish Chauhan

Managing Director and CEO,
National Stock Exchange

November 2025

Read the full interview

Building a resilient future with India's National Stock Exchange

The founding member of one of the world's largest exchanges speaks with McKinsey's Akash Lal about the journey of building a resilient tech platform for an exchange that processes around a million messages per second.

Akash Lal: How is the NSE taking an enterprise-wide approach to resilience?

Ashish Chauhan: While resilience has always been a focus at the NSE, we recognized the benefit of taking a more structured, enterprise-wide approach. We knew from the start that resilience couldn't be tackled in isolation; it requires a coordinated, cross-functional strategy. So we took a holistic approach by identifying the most consequential areas at the NSE and then developing a resiliency strengthening program that addressed all of them—ensuring alignment across people, process, technology systems, business operations, and decision-making frameworks.

Akash Lal: What has the resilience program accomplished so far?

Ashish Chauhan: In all areas, we're not only modernizing some of our legacy systems but also strengthening our processes to meet today's demands and enable future-ready capabilities that we can scale across the organization. We've completed 65 [resilience-strengthening] actions and are actively working on eight more. We aim to finish those by the end of 2025. Some longer-term initiatives will move to the business-as-usual stage until 2026.

Akash Lal: Cybersecurity is a crucial part of a resilient technology infrastructure. How has the NSE strengthened its defense against cyberattacks?

Ashish Chauhan: The NSE experiences a substantial number of cyberattacks; for instance, during a 20-minute period recently, we sustained nearly 400 million hits from over 120 countries on our website. Even so, we have managed to maintain our operations without significant disruptions. We use continuous monitoring to detect and respond to potential threats, and we test and retest our systems constantly.

Resilience is a journey, not a destination, and it must be steered by the highest levels of an organization.

To fortify our defense, we have deployed best-in-class processes, tools, and technologies across our defense layers and ensured proactive risk assessments and timely mitigation of identified risks. Cybersecurity controls spanning prevention, detection, response, and recovery have been implemented to ensure cyber-resilient systems. The NSE follows a secure-by-design principle—in which we integrate security into the entire development process—to ensure that all applications, products, and services rendered by the exchange have inherent security elements embedded.

Additionally, the NSE has established a 24/7 security operations center for monitoring and immediately thwarting threats. A formal cybersecurity committee, over and above our standing committee on technology, meets periodically to review cybersecurity and resilience policies, assess IT vulnerabilities, and push forward improvements. An architecture review board is also in place to look at all big shifts in technology architecture and security.

Akash Lal: A true transformation needs to be sustained, which requires effective change management. How did you prepare your teams for this shift, and what are you doing to maintain momentum?

Ashish Chauhan: We created end-to-end teams around seven themes we identified across 82 areas, with team leaders who ensure effective execution on the ground. We established governance and oversight to support teams with guidance and entry and exit criteria. These steps helped everyone to have a shared objective and goals and to role model building an engineering-led culture.

Resilience is as much about human capital as it is about systems. One of our focus areas has been strengthening our tech talent pipeline to hire the best talent, including hiring from top management and technology institutes, while also upskilling existing teams through targeted training programs and knowledge-sharing initiatives. We emphasize knowledge management—where we identify, document, organize, maintain, and distribute critical collective knowledge—and effective documentation, and we have structured knowledge transfers—planned events and processes for sharing expertise or insights. These practices facilitate continuity and scalability.

By investing in our people, we ensure that the transformation was not just a one-time initiative but an embedded part of our culture.

Akash Lal: What advice would you give to other technology and business leaders contemplating a transformation like this one?

Ashish Chauhan: First, resilience requires a holistic approach and not shortcuts. It has to be an enterprise-wide effort and driven at every level. Second, it requires difficult decisions that will be hard to implement and will need support from the top. Third, this effort is not merely rewiring, whereby symptoms are addressed, but a more involved engineering process where the root cause will need to be fixed. That fix could go beyond the ambit of a technical fix. Last, the resilience initiative shouldn't be a perception-based effort; it must be quantified and measured scientifically to ensure that it's focusing on the right areas.

Again, resilience is a journey, not a destination, and it must be steered by the highest levels of an organization.

Section overview

Leading Asia

Uday Kotak

Founder and Director,
Kotak Mahindra Bank

August 2025

Read the full interview

How Uday Kotak uses dreams to manage risk and build value

The founder of one of India's most prominent private sector banks speaks to McKinsey's Joydeep Sengupta about growing his business in India's emerging financial services sector, the benefits of partnerships, and how dreaming is one of the most powerful tools for risk management.

This interview is part of the Leading Asia series, which features in-depth conversations with some of the region's most value-creating leaders on what it takes to realize bold ambitions and take them further.

Joydeep Sengupta: We are presently researching the top value creators in Asia over the past 25 years to try to unravel what it takes to achieve this status. Certainly, you stand tall in the list of people who have created extraordinary value. Tell us about your journey, as well as your secret sauce.

Uday Kotak: I don't think that there is necessarily a secret sauce. There are two considerations. First, I believe that opportunity comes from being in the right place at the right time. I consider myself fortunate to have been in India at a time when the financial sector and the economy were opening up post 1984–85, when I was just starting out.

The second factor was a significant focus on common sense. Once I had decided to be an entrepreneur, I started looking for what opportunities were available. By far, the biggest was the imperfect financial sector marketplace. Banks used to take deposits at 6 percent, and the lending rate was fixed by the central bank at 17 percent, irrespective of the quality of the borrower. So, conditions for getting credit created clear opportunities to find a way of intermediation.

I believe that one of the most important things about entrepreneurship is that there comes a time when an entrepreneur needs to transition to a significantly more structured firm process. Risk management becomes extremely important.

I experienced two or three major external events in the Indian financial sector, which were big warning signs. In 1991, after the balance of payments crisis in India, the new finance minister presented an amazing budget, which opened up many opportunities. Then, in 1992, when we were still in the first five or six years into our

A good banker must have three qualities: prudence, simplicity, and humility. These qualities still, and will always matter.

journey, there was the securities scandal. That gave us a bird's-eye view into what risk management was about, and how risk-adjusted returns and events outside your control can effectively destroy your business model. After the securities scandal, the Reserve Bank of India stopped banks from rediscounting bills for private companies. That forced us to reinvent ourselves. Fortunately, in 1991, we had started a car finance business, which was working on significant spreads.

We were a bit like frogs in the well in India in the 1990s. How were we going to find out about global capital markets? How could we learn the skills and processes that, for example, Ford Credit had used to become a car finance business? We needed to open up to the world. So, we pursued the capital markets and, in fact, pursued Goldman Sachs to partner with us in investment banking and securities. This was our first joint venture, where we owned 75 percent and Goldman Sachs owned the remainder.

Around the same time, we went into a joint venture with Ford Credit. As you may recall, Anand Mahindra was an early investor in our company. In 1985, he had entered into a joint venture with Ford, and therefore we did a joint venture in car finance. We learned a lot about partnering with these two global firms in the 1990s.

When I think about the whole journey, I don't think there was a secret sauce. It's more about keeping your head on your shoulders. On stage at the World Economic Forum in 2009, Fareed Zakaria asked me, "What makes a good banker?" I replied, "A good banker must have three qualities: prudence, simplicity, and humility." These qualities still matter and will always matter. If there is any secret sauce, it is these three human qualities.

Joydeep Sengupta: When you started your journey, did you ever imagine you would be where you are today? Did you have a big, bold ambition as to where you would be in 2025?

Uday Kotak: Joydeep, we always dream. One of the most powerful tools for risk management is dreaming. People underestimate the fact that you have to dream to build a business for sustainability and continuity. The mix of these two dreams has always possessed Kotak and our senior team.

As far as where we stand today, I genuinely believe we are still very small in the bigger scheme of things; I don't think about us as being big. The size of the opportunity in the Indian economy and the world at large is still huge.

Joydeep Sengupta: We are currently in a world with a lot of disruption, and the premium on innovation has gone up considerably. How have you adapted to that?

Uday Kotak: I believe that technology is a big opportunity and a significant disruptor, and we have embraced digital since 2017. We realize we have to be able to build a customer franchise that focuses much more on mobiles and computers, as the density of physical branches will reduce.

Then there is talent: One of the biggest challenges banks of the future will face is the ability to attract the best talent. In addition, we believe that the future has to be much more technology-driven, but how do you match that with the customer's need for a relationship? I think a combination will work—but you still have to go all out to embrace technology.

Section overview

Leading Asia

Kiran Mazumdar-Shaw

Founder and Chairperson, Biocon Group

September 2025

Read the full interview

Mazumdar-Shaw's bold biotech mission: Affordable, accessible healthcare

The entrepreneur who built one of India's first biotech companies speaks to McKinsey's Gautam Kumra, Cheryl Lim, and Jennifer Chiang on how she believes that technology, purpose-driven leadership, and resilience are critical to building enduring impact.

This interview is part of the Leading Asia series, which features in-depth conversations with some of the region's most value-creating leaders on what it takes to realize bold ambitions and take them further.

Gautam Kumra: Kiran, you are in a very small minority of women founders and entrepreneurs across Asia. When you reflect on your journey, what are some of the main milestones to getting to where you are?

Kiran Mazumdar-Shaw: In the 1970s, I met a biotech entrepreneur from Ireland [Leslie Auchincloss, founder of Biocon Bio Chemicals] who asked me to join him in starting a biotech company in India. As I was interested in biotechnology, I thought I would give it a go. I also realized that India had no biotech industry—most businesses at the time focused on trading or were ancillaries to big companies and multinationals. As a daughter of a brew master, I had a scientific interest in biotech as I thought it was closely aligned to brewing. I began by applying fermentation technology to develop enzymes.

I consider Biocon to be the first tech start-up in India because no one at the time was looking to start a science- and technology-led business, or use new technology. From the beginning, I was driven to pursue a differentiated path led by science and technology—that drive has kept me motivated throughout my journey. As an entrepreneur, I believe in the power of science and technology, and I have always tried to challenge the status quo. I also have adopted the ethos of always asking myself what I can do next. That's how I have built Biocon over the years.

Gautam Kumra: It seems you have a North Star—the feeling of being driven by something.

Kiran Mazumdar-Shaw: I have two North Stars. One is driven by science and seeing where it can take you. The other one is making a difference to healthcare by creating access to affordable, life-saving medicines. We are doing wonderful things with science and coming up with great new drugs and therapies, but how many

If you don't start understanding how to use AI today, in three to five years' time, you will be left out.

people around the world can afford them? Being based in India, I realize how little access patients here have to new therapies and drugs. I am trying to address this challenge and not just in terms of biosimilars—for example, if I develop a new drug, how do I get Indian patients to participate in trials and benefit from good, new drugs?

Gautam Kumra: What do you think about the role of innovation and how to scale it?

Kiran Mazumdar-Shaw: We always look at innovation by asking ourselves, "What more can we innovate; what can we do differently?" When you challenge yourself on the path of differentiation, it's amazing how you can innovate. For example, there was no recombinant human insulin available in India. This made me wonder why animal insulin was being used, which we know is immunogenic, just because it was cheaper. That's why we developed recombinant human insulin and, today, it's the most affordable insulin in the world.

Cheryl Lim: As Biocon was evolving, it sounds like you were making big bets at different times about the direction you were going. Can you help us understand how you thought about trade-offs?

Kiran Mazumdar-Shaw: I started the business by developing enzymes. When I realized that I had an opportunity to develop biopharmaceuticals, the trade-off was very easy: Enzymes were low-priced, high-volume products and biopharmaceuticals were high-value, low-volume products. To become a billion-dollar company, I would have had to invest a huge amount in enzyme technology. It was much easier to become a billion-dollar company in biopharmaceuticals. That was my first approach to why we should move from enzymes to biopharmaceuticals.

Then, in biopharmaceuticals, I started with novel biomolecules and thought about ramping up quickly. However, this became a very arduous path, so I needed an opportunity to build a big business—and I found it in biosimilars and generics. After that, I developed a research services company to emulate what IT companies had done when they started their own IT research arms. That's how I started Syngene [a contract research, development, and manufacturing organization].

These were inflection points where I started looking at opportunities. They were not trade-offs; they were strategic decisions that made us move to the next level of growth.

Gautam Kumra: What do you think about the role of technology in today's world?

Kiran Mazumdar-Shaw: Technology is everything—but we don't know enough about how to use technology such as AI. If you don't start understanding how to use AI today, in three to five years' time, you will be left out. AI is going to be transformative in many, many ways. You need to start forcing yourself to use it. Young people in our company are being encouraged to adapt to AI in small ways to begin with. For example, I'm training ChatGPT to understand me, to train it in my way of thinking and in my style. If you do this, then it really can become your companion and sounding board.

Everybody is using AI to do things faster and better but I think it has a much bigger use. Today, hospitals and clinics use AI to read scans, believing that it's quicker, more predictable, and more precise. But I have found a researcher at the Memorial Sloan Kettering Cancer Center who uses AI to look at tumor morphology, which is invisible to the naked eye, in scans before and after treatment, and then uses AI again to see who responded well to the treatment and who did not. This type of use of AI will allow a doctor to decide what treatment that patient should get. I find this fascinating.

Section overview

Leading Asia

Narayana Murthy

Founder, former CEO, and Chairman Emeritus, Infosys

October 2025

Read the full interview

Respect above all: Narayana Murthy's core business belief

The founder of India's technology services and consulting giant speaks to McKinsey's Gautam Kumra about how his values have led him to grow Infosys into a global technology powerhouse, and emphasizes how leading by example and communicating well build trust in employees.

This interview is part of the Leading Asia series, which features in-depth conversations with some of the region's most value-creating leaders on what it takes to realize bold ambitions and take them further.

Gautam Kumra: As you reflect on your journey, what role did you and Infosys play in shaping and operating in the broader ecosystem?

Narayana Murthy: I believed that earning respect from our stakeholders would be the best way to strengthen the company. Because, at the end of the day, our stakeholders are customers, employees, investors, venture partners, and the government and society.

If you want to earn respect from your customers, you have to deliver what you promised on time, within budget, and with higher-than-expected quality. If you seek respect from your employees, you have to conduct yourself in a fair and transparent manner in every action. You have to protect the dignity and respect of every individual. You will then be able to create an environment where everyone says, "I belong to this company." Of course, you have to make an effort to create a sense of ownership for them, and that's where our stock options come in. If you do all this, your employees will become your brand ambassadors.

If you gain the respect of investors by being transparent, avoiding related party transactions, and ensuring you do not create governance deficits, they will become your long-term investors. If you are respected by your vendor partners, they will help you in difficult moments because you have demonstrated that you're an honest person. And, if you are a respected person and a respected company, my experience with bureaucrats and politicians has been that they will do everything possible to encourage you by creating industry policies that will accelerate your growth.

Respect from society is the ultimate respect, because society creates all these stakeholders. To gain society's respect, you need to ensure you do not endanger the overall environment and that it's as clean as possible.

You have to connect whatever employees do to the betterment of the corporation, because unless it improves the bottom line, it has no value.

Gautam Kumra: How did you think about the impact your company would have in India, and how the country would provide leverage for you to build the business globally?

Narayana Murthy: My first business, Softronics, failed in 1976. This was because there was no market for software development in India at the time. There were hardly any computers, and those that were here were with the government, which did not believe in outsourcing.

Then, in around 1979, super minicomputers emerged. The beauty of these was that they were almost as proficient at computing and handling commercial applications as mainframes, but they cost a fraction of the price. In the mid-1980s, these super minicomputers released relational databases with online transaction processing monitors, which you need to install commercial applications. Transaction processing monitors bunch together a set of related physical updates to the database as one logical update so that the consistency of the database is maintained. A relational database is one of the most useful tools in commercial applications or any online query system.

That was when I realized that something extraordinary was going to happen, not in India, but in the United States. Because these super minicomputers were inexpensive, many mid-tier corporations, and even some large ones, in the United States would start using computerized commercial applications.

I saw that there was going to be a huge explosion in the demand for software developers and people in software services. In India of that time, many engineers were unemployed, even those from the Indian Institutes of Technology (IITs). So, I thought there was a great opportunity for building a company if I could match demand from the US side with supply from the Indian side.

Gautam Kumra: You pretty much invented the global delivery model. How did you think about innovation and the role of innovation in the journey at Infosys?

Narayana Murthy: By and large, I believe in the adage, necessity is the mother of invention. But for that, you have to be proactive. It wasn't easy to be proactive previously in India—due to its history, Indians can be static observers. We were told, "Don't speak up unless elders ask you to." It's a cultural issue where Indians don't insert themselves into a situation to try to change it.

Therefore, in Infosys, we had to create an environment that overcame apathy. People have to take ownership and, to do that, they have to realize that whatever they are doing will benefit them. For example, in 1991, when Infosys had about 150 employees, we held our first conference on innovation. A few days after the event, the janitor in charge of maintaining our conference rooms asked me to explain what innovation meant. I told him, "When you work in the conference rooms, ask yourself each day what you could do faster, cheaper, and with better quality than yesterday. These questions apply to everybody, from the chairman down. In some cases, they may invent something new; in others, they may improve something. That is what is called innovation."

I think we need to demystify innovation. We need to accept that innovation is not the prerogative of one department. Each day, every department and every employee must consider how to do things faster, cheaper, and better. Creating that type of mindset will be sufficient. However, you have to connect whatever employees do to the betterment of the corporation, because unless it improves the bottom line, it has no value.

Section overview

T. V. Narendran

CEO,
Tata Steel

June 2025

Read the full interview

‘Steel is part of the problem, but is also part of the solution’

The CEO of the Indian steel giant speaks to McKinsey’s Rajat Gupta about his efforts to decarbonize the company that accounted for $27.7 billion of the Tata group’s $165 billion in 2024 revenues and a major part of the group’s greenhouse gas emissions.

Rajat Gupta: You have led Tata Steel through COVID-19 and recent geopolitical tensions. How do you approach these big challenges?

T. V. Narendran: Challenges are par for the course. Soon after I took over, our iron ore mines were closed for almost a year, which had never happened in the history of Tata Steel. Suddenly, we were sourcing iron ore from across the world to feed our blast furnaces in India. This was a huge challenge—even moving iron ore from the port to the steel plant was a challenge because India was never an importer of iron ore.

In situations where there is a lot of uncertainty and insecurity, decisions need to be taken quickly, and it is very important to be close to the ground. During COVID, we had hour-long leadership calls every morning. Things were changing on the fly, so we could not abide by the regular cadence of meetings. The shift also increased the morale of the team, brought cohesion, aided communication, and helped us move much faster.

Rajat Gupta: Let’s talk about Tata Steel’s sustainability journey. What are the challenges as you try to decarbonize?

T. V. Narendran: Steel is part of the problem, but it is also part of the solution. The industry is responsible for about 8 percent of the world’s carbon footprint. But you cannot transition to a fossil-free environment or a renewable-energy-driven environment without steel. You cannot build without steel; to take just one example, without steel, there is no mobility.

People underestimate the costs and complexity of this transition. Steel is a capital-intensive industry, reliant on global supply chains. The historic method of blast furnaces using coal has become increasingly competitive over a hundred years: Any other way of making steel costs $100 to $300 more per ton. That’s

You cannot transition to a fossil-free environment or a renewable-energy-driven environment without steel.

more than the EBITDA margin of most steel companies. And then there's the fact that, for now, customers must be willing to pay more for green steel.

Given all that, there's no business case for the transformation unless governments offer some support through policies that make the transition viable. But that support varies around the world. Look at the geographies we serve. In the UK, where we have support from the government, we are on track to transition to greener steelmaking by 2027. That transition is well underway, as evidenced by the fact that we have closed our blast furnaces and are setting up a scrap-based steel plant. In the Netherlands, we are in active discussions with the government about our transition. With positive support from governments, combined with policies like the Emissions Trading Scheme that create an incentive to reduce carbon emissions, we expect our European footprint to be green by 2035.

India, on the other hand, is a few years behind on its policy road map, which is only emerging now, and the country lacks a customer base willing to pay more for sustainability. Nevertheless, Tata Steel India has already started this journey. We are already one of the benchmarks for CO2 emissions from our blast furnace–based facilities. We are also building a million-ton scrap-based steelmaking facility, despite it being less profitable than our coal-based plants. In some ways, we are ahead of the law and current policies in India.

Rajat Gupta: How would you describe the role of technology?

T. V. Narendran: There is no technological silver bullet, but there are plenty of emerging technologies that will be part of the solution. Each has a cost, of course, and each must be considered in the local context.

The UK is an exporter of scrap metal, so using scrap to make steel there makes a lot of sense, instead of relying on imported iron ore and coal. The Netherlands, on the other hand, doesn't have much scrap, so there we are looking at gas-based and, eventually, hydrogen-based steelmaking. Gas-based steelmaking can halve the CO2 footprint, while hydrogen-based steelmaking could bring it close to zero. But we are a long way from hydrogen-based steelmaking being competitive with either gas- or coal-based steelmaking.

India is a different story. Here, reasonable supplies of gas and hydrogen are years away, so we are asking ourselves, "What technologies could help reduce coal consumption in blast furnaces by 30 percent, maybe even 60 percent?" One example is a technology called EASyMelt, which we are working on with a German company, SMS Group. EASyMelt can help significantly reduce the CO2 footprint of a blast furnace.

One way we helped with EASyMelt is that when SMS was looking for a blast furnace to try out this technology, we offered one of ours. We were happy to offer a facility because the challenge is to scale up these technologies so they can become economically viable. We also do this with interesting start-ups. We don't invest in them, but we do offer our plants for their experiments, which helps them and allows us the opportunity to understand the technology.

Carbon capture, utilization, and storage [CCUS] must be a part of the eventual solution for the steel industry, but it must be scaled up. The World Steel Association has forecast that in 2050, there will still be 700 million tons of blast furnace production, which means almost 1.2 billion tons of CO2, even after instituting other decarbonization actions. We need to find ways to capture that CO2 and either store it or convert it into something useful. The goals of helping blast furnace–based steel plants emit much less CO2 and of capturing emissions as best as possible are especially important in a high-growth market like India.

Section overview

Leading Asia

Rajesh Rathi

Chairman and Managing Director,
Sudarshan Chemical Industries

July 2025

Read the full interview

World in color: How Sudarshan became a global pigment powerhouse

Rajesh Rathi speaks to McKinsey's Avinash Goyal about his company's global ambitions, leadership lessons, and his cultural observations through Sudarshan's evolution from a domestic, family-led company into a top international entity.

This interview is part of the Leading Asia series, which features in-depth conversations with some of the region's most value-creating leaders on what it takes to realize bold ambitions and take them further.

Avinash Goyal: Sudarshan has an interesting history. Please tell me more about it.

Rajesh Rathi: The company was started in 1951 by my uncle—who completed his PhD in chemical engineering in the United States—along with my father and his other brothers. From the outset, it was a profit-making company, based on three principles. The first was meritocracy. Despite not being the eldest, the third brother was made CEO because he was the most educated. The second principle was discipline, with regard to coming in to work on time. In the 1950s, coming from a Marwari family, you didn't start work before 11 a.m., but there was a rule that everyone had to report to work at 8:45 a.m. I remember as a child, if my father was even five minutes late for work, he would be very upset because a quarter of his day's salary would be docked. The third principle was financial discipline: Plow money back into the company and lead a very simple lifestyle.

Education was a very important factor in our family. In order to join Sudarshan, you had to have a basic engineering or science degree, followed by a master's degree and an MBA from a global university.

Avinash Goyal: One of the challenges—or opportunities—for Asian businesses is the transition from being primarily family-led, to the inclusion of more professionals in the business. Sudarshan appears to have made that transition seamlessly. Has the transition really been smooth?

Rajesh Rathi: In the 1990s, at the peak, I think we had 14 family members working in various businesses across the group. There were seven or eight of us at one point within the Sudarshan Group, which included Sudarshan Chemicals and some of the engineering group. Our founders realized that wasn't sustainable and decided to break up the businesses. As we started growing, the family made a unanimous decision

30 to 40 percent of our board are women. Our people practice head has also hired more than 200 women on the chemical shop floor.

that meritocracy should be the predominant factor, so we slowly made the organization more professional, and built a good pipeline of leaders. Common traits across our leadership team are boldness and ambition. One of my responsibilities is to ensure that I keep coaching and directing our leaders toward the common aim of the company being a world-class, global leader.

Avinash Goyal: Sudarshan is a complex specialty business, with thousands of SKUs, a wide variety of customers, and board members and investors across the world. How do you navigate the cultural differences?

Rajesh Rathi: I think you need a combination of an open mind, good listening skills, and a willingness to accept cultural differences. Some of the principles—being customer-centric and ambitious—are the same across the world; it's more the nuances, such as how you operate in a Brazilian or Japanese market, compared to a more traditional German or European market. There are new lessons for the team all the time; the most important thing is that we are not shy to learn, and we'll keep learning and adapting to what makes sense for each market.

Avinash Goyal: I think one of the unique things I've observed is the perception that Indians are viewed as "chaotic," whereas we view it as agility. Because the world is chaotic, things are sometimes not delivered on time, or changes are made to processes. What's your take on this?

Rajesh Rathi: That's a very good point. I think having a timeous, process-driven culture in Sudarshan has helped. And respecting people's time has been an important aspect as we grow. This meant there was good mutual respect and a genuine warmth between us and Heubach during the integration of the two companies, for example. I don't think we looked at it as an acquisition, but as two companies truly coming together.

Avinash Goyal: Sudarshan has some unique values—besides being customer-focused, there's a strong emphasis on diversity and inclusion.

Rajesh Rathi: Our values stem from the Sanskrit word *seva*, which means service without being selfish, and serving through your heart.

Sustainability in our organization is important, and diversity and inclusivity form part of this. I believe this starts at the top—30 to 40 percent of our board are women. Our people practice head has also hired more than 200 women on the chemical shop floor. This was unheard of in the industry and there was great opposition when we started this initiative. But now there is demand—we find the plants with women operators produce both the highest quantity and best quality products. As the next step, we are looking to employ people with disabilities wherever we can.

Avinash Goyal: In closing, what advice do you have for Indian entrepreneurs or companies that are looking to go global?

Rajesh Rathi: On a fundamental level, I would say it's cultivating a desire and mindset within your organization to go global, an appreciation of the culture of each market, and an understanding of the nuances of what it will take to expand in that specific market. Focus on the bottom line but keep adding value in each area. Identifying your competitive advantage and really spelling out the winning formula in each market is a critical aspect.

← Section overview

Leading Asia

Dilip Shanghvi

Chairman and Managing Director,
Sun Pharma

July 2025

Read the full interview

Dilip Shanghvi on the focus and philosophy behind Sun Pharma's success

The founder of India's largest pharmaceutical company speaks to McKinsey's Gautam Kumra about the journey that began as a small generics company over four decades ago, and the way he approaches bold risks in a calculated way, balancing resilience and innovation.

This interview is part of the Leading Asia series, which features in-depth conversations with some of the region's most value-creating leaders on what it takes to realize bold ambitions and take them further.

Gautam Kumra: When you reflect on Sun Pharma's growth journey, what elements have been essential for success? What is your North Star?

Dilip Shanghvi: One is focus. We not only focused on finding ways to work with specialists in different therapy areas, starting with psychiatry, but we also had a singular focus on helping doctors upgrade their knowledge, treat patients more effectively, and give them access to products that could help solve patient problems. This focus has helped us grow in India.

Outside of India, we've tried to follow the same philosophy in emerging markets by selling branded generic products. In the US and European markets, success depended on being early to the market and cost-effective. So, we focused on being competitive in terms of speed of product development and cost of goods.

When we started, we were competing with companies that were much bigger than us, so we could be nimbler. Now, we're one of the biggest players, so we face the challenges that come with size and complexity. To remain competitive, we've focused on business areas, such as specialty products, that would help us compete with larger players. Being more entrepreneurial and responsive will help us succeed in this space.

Ultimately, we believe we should be better in each of our businesses than we were last year. We look at what others in our industry are doing and try to learn from them, but each of our businesses needs to find a way to grow faster than the market, or at least faster than what it grew the previous year. The second belief is that there's an opportunity to build a successful, multinational pharma business out of India.

Deciding which direction to take is a gut-based decision, but deciding how to invest is a logical and rational process.

Gautam Kumra: As Sun Pharma has grown, how has your approach to innovation evolved? What does innovation mean in the context of your business today?

Dilip Shanghvi: The pharma business is knowledge intensive. To do well, you have to constantly update and strengthen your capabilities by keeping track of what's happening globally and what's working for people, then adapt your environment and culture accordingly.

Our philosophy is that if we understand 70 percent of an idea, we are prepared to take the risk and learn 30 percent along the way. For example, when we entered the specialty market, we knew very little—we didn't know how to access the market, and we didn't understand pricing or the various requirements in different geographies. To succeed, we had to adapt and learn about products and therapy areas; how to compete with bigger companies; and how to find potential partnerships. Deciding which direction to take is a gut-based decision, but deciding how to invest is a logical and rational process.

Gautam Kumra: You have a remarkable track record of acquiring struggling pharmaceutical companies and revitalizing them. For example, you acquired Caraco Pharmaceutical Laboratories in 1997 and acquired Taro Pharmaceuticals for $500 million in 2007, a potentially risky venture at the time because of the regulatory scrutiny and the integration challenges it posed. How do you balance the pursuit of growth and innovation with your appetite for risk?

Dilip Shanghvi: My current thinking is that it's better for us to license a product that's closer to market than to pursue long-term development cycles. If we want to truly innovate in India, the regulatory environment would have to change. I also believe it's more advantageous to buy a company with an approved product because it takes a lot of uncertainty and risk out of the equation. It can also give us a faster entry into a therapy area we're interested in.

My assessment metric for risk is, what is the worst-case scenario? And can I live with the worst-case outcome? For example, if we have a large upfront investment for the clinical development of a product, I will assess whether I can live with the cost before the product starts generating revenue. And in the worst-case scenario, if the product doesn't succeed as we expected, can I live with that as an outcome? I always aim for the best case, but I prepare for the worst. Another way of looking at it is that I will never risk capital, but I will risk profit: If a risk doesn't play out as expected, the worst case should be that we may not make money that year, but we don't lose the business or impair our ability to invest.

Gautam Kumra: How do you develop, manage, and lead people, especially your top team?

Dilip Shanghvi: When I started the business, we had to hire the people we could afford. As the business demanded us to grow rapidly, the only way we could do that was by having those people deliver far beyond their normal capacity. That strategy helped us early on and is still critical today. If you hire capable people, it's possible to get extraordinary performance from them.

If you're fair and are prepared to invest in people and give them opportunities, then they will stay. Loyalty matters to us. But if we don't have the capabilities we need internally, then we try to hire people [externally] who are culturally aligned with us. Interestingly, in our top team today, more than half of the people who report to me are new, and we have benefited greatly from their presence. We have committed to working with people who are capable of learning, but managing at scale is also important. This is how members of my top team have added value: they have managed at much larger scales than they are managing now. By creating opportunities for growth, we build a better future for all the people who've been with the company for a long time.

Section overview

Acknowledgments

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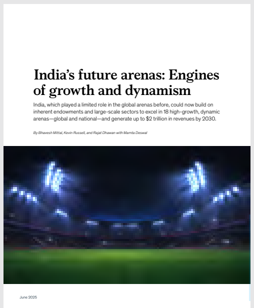

India's future arenas: Engines of growth and dynamism

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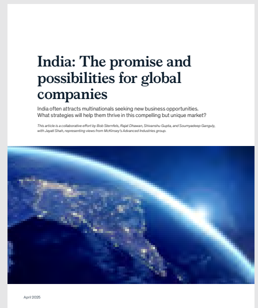
Kevin Russell
Mamta Deswal
Rajat Dhawan



India: The promise and possibilities for global companies

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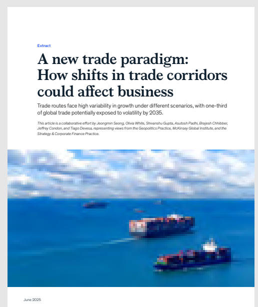
Jayati Shah
Rajat Dhawan
Shivanshu Gupta
Soumyadeep Ganguly

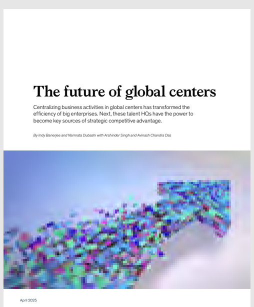
Wanted: A new economic playbook

Rajat Dhawan



The future of global centers

Arshinder Singh
Avinash Chandra Das
Indy Banerjee
Namrata Dubashi



A new trade paradigm: How shifts in trade corridors could affect business

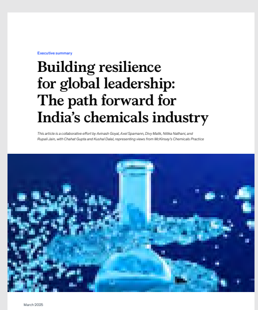
Asutosh Padhi
Brajesh Chhibber
Jeffrey Condon
Jeongmin Seong
Olivia White
Shivanshu Gupta
Tiago Devesa

A new wave of FDI could help the country stare down uncertainty

Jeongmin Seong
Rajat Dhawan
Shivanshu Gupta

Shaping the future of India's auto component industry amid global trade shifts

Akash Misra
Brajesh Chhibber
Jayati Shah
Rajat Dhawan
Shivanshu Gupta
Shubham Singhal



Building resilience for global leadership: The path forward for India's chemicals industry

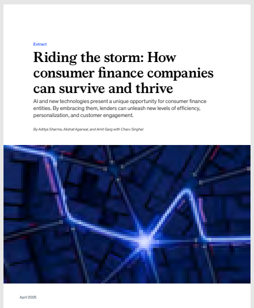
Avinash Goyal
Axel Spamann
Chahat Gupta
Divy Malik
Kushal Dalal
Nitika Nathani
Rupali Jain

Shaping the future of India's pharmaceutical operations

Ankur Bhajanka
Jean-Baptiste Pelletier
Parag Patel
Sasikanth Dola
Sathya Prathipati
Vishnukaant Pitty
Vivek Arora

Strengthening the future: Steel for growth and resilience

Amit Aggarwal
Ankit Agarwal
Prabhav Sharma
Rajat Gupta



Riding the storm: How consumer finance companies can survive and thrive

Aditya Sharma
Akshat Agarwal
Amit Garg
Charu Singhal

Value creation in Indian agriculture

Akshita Agarwal
Avinash Goyal
Dwijo Goswami
Nitika Nathani
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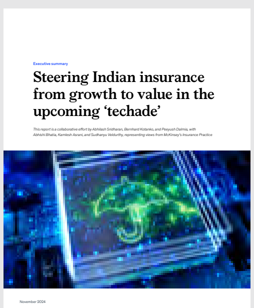
Tom Brennan



Steering Indian insurance from growth to value in the upcoming 'techade'

Abhilash Sridharan
Abhishi Bhatia
Bernhard Kotanko
Kamlesh Asrani
Peeyush Dalmia
Sudhanyu Veldurthy

Extracting value from AI in banking: Rewiring the enterprise

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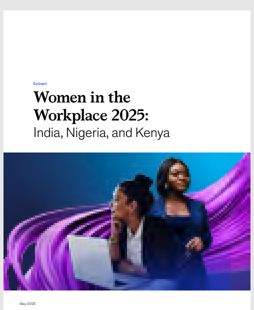
Larry Lerner
Renny Thomas
Shwaitang Singh
Sudhakar Kakulavarapu
Violet Chung
Yuvika Motwani



The state of AI in 2025

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Bryce Hall
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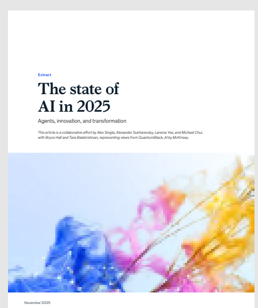
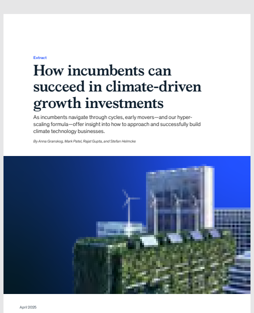
Tara Balakrishnan



How incumbents can succeed in climate-driven growth investments

Anna Granskog
Mark Patel
Rajat Gupta
Stefan Helmecke



Women in the Workplace 2025: India, Nigeria, and Kenya

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