CHENNAI - MONDAY - JULY 13, 2026

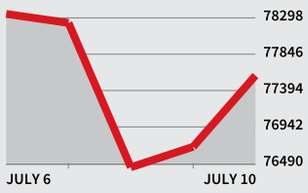
₹10 • Pages 10 • Volume 33 • Number 193

www.businessline.in

businessline thehindubusinessline

the hindu businessline.

SENSEX 77569.39 (-194.52)



IN FOCUS

	Week's close	Week's change
Nifty 50	24206.90	-63.95
P/E Ratio (Sensex)	21.04	-0.07
US Dollar (in ₹)	95.32	+0.11
Gold Std 10 gm (in ₹)	142794.00	-2964
Silver 1 kg (in ₹)	220390.00	-13468

AIMING HIGH.
India must have a stronger seaplane network, considering its coastline and inland water bodies, says Aviation Minister K Rammohan Naidu **p3**

INFLATION FORECAST.
Driven by surging food costs, retail inflation is projected to breach the 4% mark in June **p2**

BENGALURU - CHENNAI - COIMBATORE - HUBBALLI - HYDERABAD - KOCHI - KOLKATA - MADURAI - MALAPPURAM - MANGALURU - MUMBAI - NOIDA - THIRUVANANTHAPURAM - TIRUCHIRAPALLI - VIJAYAWADA - VISAKHAPATNAM

Regd. TN/ARD/14/2012-2014, RNI No. 55320/94

QUICKLY.

WINNING MINDS

India wins 5 gold medals at Physics Olympiad

Chennai: India put up a standout performance at the 56th International Physics Olympiad (IPhO) 2026, held in Colombia from July 5 to July 12, with five students clinching gold medals. In the country-wise medals tally, India was placed at the first position, jointly with China, Kazakhstan, Russia, South Korea and Taiwan. This is the second time that India has won five gold medals at the IPhO, the other occasion being in 2018. **p2**

TRACXN DATA

Solar module firms woo more private investors

Chennai: Indian solar module makers have caught the attention of private market investors as they scale their manufacturing presence and move further into upstream components like cells, wafers and ingots. According to data from Tracxn, over the past five years, private investments in module manufacturing companies have gone up nearly ten-fold in value. In 2026, these companies raised $460 million in equity funding. **p2**

TCS backs sovereign AI, in talks with Indian developers

ALLAYS FEARS. Concerns over access curbs to Mythos are overblown: CEO Krithivasan

Vallari Sanzgiri
Thomas K Thomas
Mumbai

Amid growing concerns over AI sovereignty and access to frontier models, TCS has begun discussions with Indian AI model developers, and said the country will need sovereign AI capabilities for sensitive workloads.

"India will need a sovereign model because you do not want to lose to the outside world, where you do not have complete control," said K Krithivasan, CEO and MD at TCS, in conversation with *businessline*. TCS is also building smaller, domain-specific language models for customers using its own capabilities. The comments come at a time when governments and enterprises are increasingly examining the risks of relying exclusively on global AI platforms amid rising geopolitical tensions, export controls and evolving regulations around advanced AI technologies.

> India will need a sovereign model because you do not want to lose to the outside world, where you do not have complete control
>
> **K KRITHIVASAN,**
> CEO and Managing Director, TCS

AI READINESS

However, Krithivasan played down concerns that restrictions on access to cutting-edge AI models could put Indian technology companies at a disadvantage. Referring to recent debates over restricted access to frontier models like Anthropic's Mythos, he said the issue had been "overblown" because most enterprises were yet to fully exploit the capabilities of AI models already available to them.

"While there is always a question of why Mythos is not available to me, a common question we ask customers is: What did you do with the model available to you before?" he said, arguing that concerns over access to the latest models were "not a major disadvantage" at this stage.

Instead, enterprises are increasingly adopting a pragmatic approach, choosing different AI models depending on cost, performance and the nature of workloads. TCS expects customers to use a mix of proprietary, open-source and small language models rather than depend on a single provider.

Krithivasan said AI revenues would continue to be "lumpy" as most AI transformation engagements are short-duration projects rather than traditional multi-year outsourcing contracts.

TCS follows a narrow definition of AI revenue, counting only projects where AI delivers measurable business outcomes. While such projects conclude within two or three quarters, he said the company sees significant headroom as enterprises begin redesigning entire business value chains around AI.

On whether technology vendors such as Microsoft, which are expanding Forward Deployed Engineer teams to work directly with enterprises, could emerge as competitors, he said system integrators would remain relevant because they understand customers' business processes and technology environments. "The thesis we have been putting out is that the role of system integrators will only increase," he said, adding that AI vendors may have deep product expertise but lack the customer context that companies such as TCS bring to large transformation programmes.

CLIENT SENTIMENT

On concerns that enterprises had been slower than expected in scaling AI deployments, Krithivasan attributed it to the complexity of large organisations.

"It's one thing to do a POC and find what looks good. Making it, productionising, scaling it and seeing the true business benefit takes some time. That's why you have to reimagine the whole process," he said.

Interview p10

Hormuz closure threatens India's gas, crude supplies

Amiti Sen
Rishi Ranjan Kala
New Delhi

Fresh escalation in West Asia following the US attack on Iran and Tehran's declaration that it has again shut the Strait of Hormuz (SoH) threatens to disrupt India's hydrocarbon supplies, particularly liquefied natural gas and liquefied petroleum gas, while also raising concerns over crude oil imports and higher costs for exporters.

Government and industry officials said India had some immediate buffer as refiners had topped up crude, LPG and LNG cargoes during the recent sanctions reprieve. However, a prolonged disruption to shipping through the strategic waterway could recreate the supply tightness witnessed in March-April this year.

"India has been able to make up for some lost cargoes of LPG and LNG. For now, there are supplies. However, if this escalation extends, leading to the SoH becoming un-navigable, the March-April 2026 shortage scenario could return," a government source said.

CLOSE WATCH

Another senior official described the situation as "tense and fluid", saying the government is monitoring developments closely and is in touch with stakeholders to ensure the safe movement of crude oil, LPG, LNG and chemical cargoes.

A refinery official said, "At present, vessel traffic is not happening through the SoH. There will be shadow tanker activity. No one can say for sure what will happen next or how will the conflict de-

FUEL IMPACT. Exporters said the biggest immediate fallout would be through energy prices rather than shipping disruptions

escalate. For now, it's wait and watch."

He added that refiners would continue relying on crude from Russia, the US, West Africa and South America, and LPG and LNG imports from the US, reverting to sourcing arrangements that existed before the Iran sanctions reprieve.

The SoH carries roughly a fifth of global crude oil trade and a substantial share of the world's LNG shipments, making any prolonged disruption a major concern for energy-importing countries such as India.

DISRUPTIONS SEEN

Exporters said the biggest immediate fallout would be through energy prices rather than shipping disruptions.

Since commercial container traffic had not resumed through the Strait even after the temporary ceasefire, the latest escalation had mainly extinguished hopes of an early return to normalcy while threatening to raise fuel and freight costs.

Federation of Indian Export Organisations Director General Ajay Sahai said there would be no immediate deterioration in container movement because commercial cargoes were already avoiding the Strait.

"The disruption is simply getting prolonged," he said.

EEPC India Chairman Pankaj Chadha said engineering exporters were more worried about gas availability than shipping. "Container traffic through the Strait never really reopened. The difference now is that whatever hope we had of normal shipping resuming has disappeared."

He added that manufacturers had begun receiving better gas supplies after the initial truce, and gas prices had started softening from July 1. "Now, it appears the situation will reverse again. Gas prices are likely to rise, and industries that had just begun recovering from shortages may once again face the same problems," Chadha said.

India condemns attack on vessel

Press Trust of India
New Delhi

India on Sunday condemned an attack on a Cyprus-flagged commercial vessel off the coast of Oman that left one of its 11 Indian crew members missing.

As West Asia witnessed fresh hostilities, India said the targeting of commercial shipping and civilian infrastructure in the region must end.

Details p3

SBI Funds Management IPO creates 13 crorepati employees

Our Bureau
Mumbai

The much-awaited SBI Funds Management (SBIFM) initial public offering (IPO) will not only make its promoters and the government laugh all the way to the bank but also reward some of its top employees handsomely.

The country's largest fund house, which introduced an employee stock option plan (ESOP) in 2018, has been rewarding its long-serving top management employees with liberal stock options. Now, the IPO will make 13 of them crorepatis. This is probably a testimony to the industry's tagline: "Mutual Fund Sahi Hai".

The fund house's Deputy Managing Director, Devinder Pal Singh, who is one of its longest-serving

employees, owns 21,14,004 shares worth ₹121 crore at the upper band of the offer price of ₹574 a share. That's not all.

He has outstanding ESOPs of 5,19,300 shares worth another ₹30 crore, according to data sourced from the Draft Red Herring Prospectus (DRHP).

An MF industry veteran, Singh joined SBIFM on January 1, 2006. Previously, he was associated with SBI as a Senior Management Grade Scale-V officer.

The fund house's Chief Investment Officer, Srinivasan Rama Iyer (fondly known as Vasan) owns ESOPs of 18,24,728 shares, worth ₹105 crore, and has outstanding ESOPs of 8,94,800 shares worth ₹51 crore.

Similarly, the 10,19,236 shares owned by Srinivas Jain, Chief of Strategy, Digital & Technology and Head of Investor Relations, under ESOPs are worth ₹59 crore. Besides, his outstanding ESOPs of 1,70,720 shares are worth another ₹10 crore.

EYEING OVER ₹11,600 CR

The promoters of the fund house — SBI and European fund management company Amundi India Holdings — will offload 12.83 crore shares and 7.54 crore shares, respectively, to collectively rake in ₹11,692 crore. The government is expected to collect ₹1,400 crore from the selling promoters as long-term capital gains tax.

The ESOPs of Rajeev Radhakrishnan, Chief Investment Officer - Fixed Income, and Aparna Nirgude, Chief Risk Officer, are worth ₹36 crore and ₹31 crore, respectively.

Vinaya Datar, Chief Compliance Officer, Company Secretary and Head Legal, could walk away with ₹21 crore from her availed ESOPs of 3,59,340 shares.

OTHER CROREPATIS

The other crorepati employees of SBI Funds Management include Mohan Lal (Fund Manager - Alternatives), Inderjeet Ghuliani (Chief Financial Officer), Mahesh Chhabria (Fund Manager, Corporate Debt Market Development Fund), Rajat Grover (Chief Human Resources Officer and Head, Corporate Social Responsibility) and Sanjay Pugaonkar (Chief Information Security Officer).

Parandur airport decision is State's call, says Centre

Our Bureau
Chennai

The Civil Aviation Ministry has not received any intimation from the newly-elected Tamil Nadu government, led by the Tamilaga Vettri Kazhagam (TVK), on whether it intends to proceed with the proposed ₹27,000 crore greenfield airport at Parandur or put it on hold, according to highly placed sources.

"We have not received any intimation from the State government about its plans for the second airport. We are not aware whether they are putting it on hold or are proceeding with it. We had issued the approval for the land some time ago," Ministry sources said.

Details p2

Rising cancer cases generate up to 25% revenue for top private hospitals

Overwhelmed and under-resourced public hospitals push patients to high-cost private care

Ankita Upadhyay
New Delhi

Cancer treatment now accounts for between 17 and 25 per cent of hospital revenue at India's largest private healthcare chains, reflecting how the country's rising cancer burden has shifted from overstretched government hospitals to the private sector.

With the ICMR's National Cancer Registry Programme estimating 15.7 lakh new cancer cases in 2025, rising to 22.2 lakh by 2040, Delhi-NCR has emerged as the country's biggest oncology hub as a significant share of cancer burden falls on northern States like Uttar Pradesh, which is estimated to record 2,10,958 new cancer cases, while Bihar is expected to report 1,09,274 cases.

As patients from these and adjoining States travel to Delhi-NCR for treatment,

COST BURDEN. Even with insurance, families often end up paying several lakhs of rupees from their pocket

the region is the biggest hub for cancer care.

PRICEY CARE

Smaller private hospitals have rushed to add oncology departments. For patients, timely treatment comes at a steep price, with one chemotherapy cycle at a private hospital costing from ₹30,000 to over ₹2 lakh, radiation therapy ₹2-5 lakh, cancer surgery ₹3-10 lakh, targeted therapies and immunotherapy ₹1-4 lakh per cycle, and bone marrow transplants ₹15-40 lakh. Even with insurance, families often end up paying several lakh rupees from their own pockets.

An AIIMS Delhi oncologist said public institutions are "overwhelmed and under-resourced", with "too few surgeons, medical oncologists and functional radiotherapy machines", leading to "long waits, which can critically affect patient outcomes".

Lady Hardinge Medical College, TSCI and Maulana Azad Medical College face similar shortages, he said.

Private hospital chains have capitalised on the demand. According to Max Healthcare's Q3 FY26 earnings update, oncology contributed 25.1 per cent of inpatient revenue, generating an estimated ₹1,560 crore in the first nine months of FY26. "Oncology contributes over 25 per cent of our overall revenues, reflecting both strong demand and the growing complexity of cancer care," said Group Medical Director Sandeep Budhiraja.

REVENUE MIX

Apollo Hospitals' FY25 annual report shows oncology accounted for 17 per cent of its inpatient specialty revenue mix, translating into an estimated ₹1,900 crore from cancer care. Medanta's FY25 disclosures show that oncology-related specialties contributed 14 per cent of revenue. Fortis Healthcare's CEO, in the Q1 FY26 earnings call, said oncology had overtaken cardiology as its largest therapeutic segment, contributing 16.4 per cent of hospital revenue and 19-20 per cent after including cancer-related procedures.

Smaller hospitals are also moving aggressively into oncology. Sir Ganga Ram Hospital has opened a multi-disciplinary cancer centre, Yatharth Super Speciality Hospital has launched a Centre for Cancer and Radiation Oncology in Greater Noida, Everhope Oncology has raised $10 million to build cancer centres in Delhi and Mumbai, M|O|C Cancer Care has opened centres in Delhi and Gurugram, and Fortis is planning a centre in Manesar.

According to SVS Deo, Oncology Lead and Senior Consultant at Max Healthcare, "30-40 per cent of future growth in the sector will come from cancer care."

Attractive rates on FCNR Deposits

5 yrs	4-5 yrs	3-4 yrs
6.60%	6.25%	6.15%

Global Edge SAVINGS ACCOUNT
Bringing Global Saving options to you

Making Life Simpler with Zen Lyfe

Business	Advances	Retail	Vehicle Loan	Deposits	CASA
19.10%	26.90%	24.59%	56.89%	12.93%	48.51%

*T&C Apply

UNAUDITED FINANCIAL RESULTS FOR THE QUARTER ENDED JUNE 30, 2026 (₹ In Crore)

RoA 1.90%	NIM Domestic 3.85%	Cost to Income 35.04%	Gross NPA 1.45%	Net NPA 0.13%	PCR 98.55%

Particulars	Quarter Ended 30/06/2026 (Unaudited)	Quarter Ended 30/06/2025 (Unaudited)	Year Ended 31/03/2026 (Audited)
Total Income from Operations (Net)	9063.29	7878.82	32822.53
Net Profit / (Loss) for the period (before Tax, Exceptional and/or Extraordinary items)	2276.76	1702.52	7857.37
Net Profit / (Loss) for the period before Tax (after Exceptional and/or Extraordinary items)	2276.76	1702.52	7857.37
Net Profit / (Loss) for the period after Tax (after Exceptional and/or Extraordinary items)	2020.19	1592.76	7019.32
Paid up Equity Share Capital	7691.55	7691.55	7691.55
Reserves (excluding Revaluation Reserve) - as on date	26076.53	20648.31	23597.18
Securities Premium Account	3867.25	3867.25	3867.25
Net Worth	32780.38	27699.34	30272.42
Paid up Debt Capital / Outstanding Debt %*	15.50	25.32	17.05
Debt** Equity Ratio	0.72	0.63	0.70
Earnings Per Share (of ₹ 10/- each) (for continuing and discontinued operations) - not Annualized	2.63	2.07	9.13
Capital Redemption Reserve	----	----	----

*Total Debts & Outstanding Debt represents total borrowings of the Bank.
**Debt represents borrowings with residual maturity of more than one year.

Note: The above is an extract of the detailed format of Quarterly Financial Results filed with the Stock Exchanges under Regulation 33 and 52 read with regulation 63(2) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 as amended. The full format of the Quarterly Financial Results are available on the Stock Exchange websites **(BSE: www.bseindia.com and NSE: www.nseindia.com)** and Bank's website **(www.bankofmaharashtra.bank.in)**

Scan for Results

Place: Pune
Date : 10/07/2026

Sushanta Kumar Mohanty, Executive Director
Prabhat Kiran, Executive Director
Nidhu Saxena, Managing Director & CEO

Bank of Maharashtra

CHENNAI
businessline.
MONDAY - JULY 13 - 2026

QUICKLY.

VOC Port inks cooperation pact with Belgian port

Chennai: In a step towards strengthening India-Europe maritime cooperation, the V.O. Chidambaranar Port Authority has signed a memorandum of understanding (MoU) with the Port of Antwerp-Bruges International NV (PoABI), Belgium, and APEC Antwerp-Flanders Port Training Center (APEC), Belgium, to explore cooperation in capacity building, green port initiatives and digital transformation of port operations. The three-year agreement complements the VOC Port's growing portfolio of green energy partnerships, the release said. OUR BUREAU

Emirates plans A380 services to Hyderabad

Hyderabad: Dubai-based carrier Emirates is ready to introduce its flagship Airbus A380 services to Hyderabad. During a meeting with Chief Minister A Revanth Reddy, Mohammed Sarhan, Vice-President (India), Emirates, conveyed the airline's willingness to deploy A380 aircraft on the Hyderabad route as the airline marked 25 years of operations in the city. Welcoming the proposal, Reddy urged the airline to expand its flight frequencies from Hyderabad to meet rising passenger demand. OUR BUREAU

Private investor interest in solar module firms on the rise

BIG LEAP. Policy support, strong domestic demand have brought sector on their radar

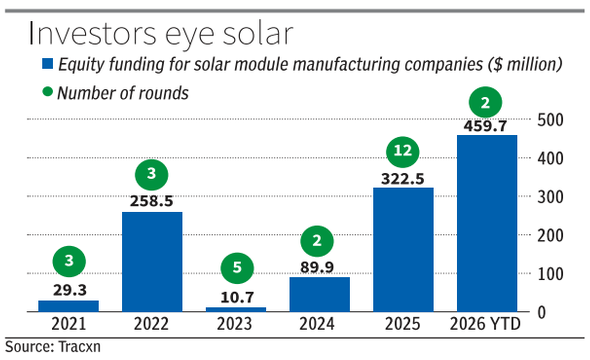
Rohan Das
Chennai

Solar module makers in India have caught the attention of private market investors as they scale their manufacturing presence and move further into upstream components like cells, wafers and ingots.

According to data from market research firm Tracxn, over the past five years, private investments in module manufacturing companies have gone up nearly tenfold in value.

In 2026 (YTD), these companies raised about $460 million in equity funding, while in 2025, the figure was around $322.5 million. This is a significant spike compared to $29.3 million in 2021.

Goldi Solar's ₹1,422 crore raise from Havells and other private investors, GREW Solar bagging ₹1,050 crore from Bay Capital Investment Ltd, alongside institutional investors, and ReNew Photovoltaics' $100 million raise from the development financing institution British International Investment were some of the marquee deals over this period. The share of each investor could not be ascertained as Tracxn tracks value of the entire round.



Source: Tracxn

Speaking to *businessline*, industry stakeholders said that in the past, the majority of capital came from strategic investors.

However, policy support, alongside strong domestic demand, had brought the sector on the radar of private equity and venture capital firms.

RISE IN CAPACITY

Ankit Jain, Vice-President, Co Group Head - Corporate Ratings, ICRA, suggested that India's module manufacturing capacity stood at more than 200 GW as of June 2026, a sharp rise from 67.3 GW as of February 2025.

"On the demand side, there has been sizeable capacity addition with schemes such as PM Kusum and PM Surya Ghar supporting module demand, while policies like ALMM, PLI and improved access to financing have enabled manufacturers to scale up capacity," he said.

Vineet Bhatia, Partner-Renewables, Grant Thornton Bharat, suggested that module manufacturing had evolved from being a commodity business to being a significant growth opportunity.

"Historically, low margins, high import dependence and challenges in scaling up operations kept venture capital and private equity interest in solar manufacturing low, and the sector was mainly driven by strategic investors whose focus was more integration over financial returns. Nonetheless, the outlook is drastically changing now," he said.

Recent policy signals from the Centre on mandatory domestic sourcing will require large-scale investments, he added.

"Companies are planning a phase-wise capital investment in the industry, beginning with cells in the near term, wafers and ingots in the medium term, and eventually extending to the broader ecosystem," Bhatia said.

Shilpa Kumar, Managing Director and Head of India, British International Investment, said, "Building globally competitive manufacturing capacity requires patient capital and an enabling ecosystem; it cannot be assessed through the lens of near-term utilisation alone. Our focus is on backing businesses with strong fundamentals, sound governance and the ability to remain competitive over the long term."

Centre says no communication with TN on Parandur airport

Our Bureau
Chennai

The Union Civil Aviation Ministry has not received any intimation from the newly-elected Tamil Nadu government, led by the Tamilaga Vettri Kazhagam (TVK), on whether it intends to proceed with the proposed ₹27,000 crore greenfield airport at Parandur or put it on hold, according to highly placed sources.

"We have not received any intimation from the State government about its plan for the second airport. We are not aware whether they are putting it on hold or proceeding with it. We have already issued the approval for the land," Ministry sources said.

The ball is now in the State's court, and any decision on the project's future rests with the State government, the sources added.

The clarification comes amid growing speculation over the fate of the proposed airport after the formation of the TVK government.

Statements by senior Ministers have indicated that environmental concerns cannot be compromised for development projects, meaning that the project could be shelved and an alternative site identified.

MAJOR DECISION. Government sources said there is no legal restriction preventing the TVK administration from discontinuing the project despite its Special Project status VELANKANNI RAJ B

Meanwhile, *businessline* has learnt from sources that a delegation of senior Tamil Nadu government officials is scheduled to visit New Delhi on Monday to hold discussions with Central government officials on various projects supported by agencies such as the World Bank and the Asian Development Bank. It remains unclear whether the Parandur airport project will be part of those discussions.

PROJECT REVIEW

Chief Minister C Joseph Vijay had, before assuming office, backed villagers and farmers opposing the project over concerns on loss of livelihood and environmental impact. Since taking charge, there has been speculation that he has reviewed the project, although no details have been made public.

Senior State government officials have denied that any such discussions have taken place.

One of the final gazette notifications issued by the previous DMK government declared the Parandur New Greenfield Airport Project a "Special Project" under the Tamil Nadu Land Consolidation (for Special Projects) Act, 2023. The notification was issued on March 2, days before the Model Code of Conduct came into force.

However, government sources said there is no legal restriction preventing the new administration from discontinuing the project despite its Special Project status.

Industry representatives have warned that scrapping the airport would be a setback for Chennai, arguing that the city had already lost passenger and cargo traffic to neighbouring Hyderabad and Bengaluru, and that a second airport would help arrest that trend.

SEBI employees will need to liquidate all 'non-permitted investment'

Shishir Sinha
New Delhi

Taking lessons from the controversy involving its former Chairperson, the Securities and Exchange Board of India (SEBI) has amended regulations governing employee service.

A new clause has been added prescribing liquidation of all non-permitted investment at the time of joining. In addition, employees will need to disclose details of their professional interests during the last three years.

These changes are part of the amendments to 'The Securities and Exchange Board of India (Employees' Service) Regulations', published in the official gazette on July 11.

In the substituted regulation 64 related with 'Restrictions on investment', the term 'non-permitted investment' has been used for restriction on an employee or his family members during the employee's period of service with SEBI.

The term includes investments in equity, instruments convertible into equity and investment or trading in derivatives of equity or commodity.

However, investment through a pooled investment vehicle — if the scheme of such pooled investment vehicle is professionally managed by an entity regulated by any financial sector regulator — and investment in units of InVITs and REITs will not be part of 'non-permitted investment'.

SEBI EMPLOYEE RULE CHANGES

- Family members to include spouse, dependent children (including step, adopted), person for which employee is legal guardian, any other person related to by blood or marriage to the employee or his spouse and substantially dependent on such employee
- Employee to disclose all negotiation, agreement for future employment within 30 days
- Gifts above the value of ₹50,000 received from friends on the occasion of marriage or any other event needs to be reported

FAMILY INVESTMENTS

A new regulation 64A has been been added, which prescribes relaxation from restrictions on investments by family members during an employee's period of service.

Accordingly, there will be no restriction on shares acquired by the spouse under an employee stock options plan.

"In case of technical violations arising out of actions of spouse and/or dependent family members, such an inadvertent action shall not be treated as misconduct by the employee affecting his career progression. However, in appropriate cases, penalty imposed may be in the nature of monetary penalty," the regulation clarified.

Under the new regulation 64, at the time of joining, the employee may liquidate the non-permitted investment or freeze them for the entire service period.

Another option would be disclosing a trading plan to the Office of Ethics and Compliance (OEC) in SEBI for selling of non-permitted investment.

TRANSITION TIMELINE

In case non-permitted investments are not liquidated at the time of joining, then the employees neither can exercise voting right, nor can receive share on account of corporate action or subscribe the right issue during employment period.

For existing employees, a timeline will be prescribed to exercise these options.

Regulation 66 has also been substituted. Accordingly, the employee will will have to give details of financial investments and liabilities pertaining to him and to his family members along with details of non-permitted investments.

"The disclosures shall be made by the employee to OEC at the time of his joining the services of the Board as well as at the time of exit from the services," it said, while adding that for the employees who were in the services of the Board at the time of coming into force of this amendment, disclosures may be done within the timeline as may be specified.

Changes in details of family members or relatives, contract of renting out or transactions in immovable property (purchase, sale, gift, inheritance) will need to be reported in 30 days.

Retail inflation likely breached 4% mark in June

Shishir Sinha
New Delhi

Driven by surging food costs and the domestic pass-through of global fuel hikes, retail inflation is projected to breach the crucial 4 per cent mark in June after a 16-month hiatus.

Despite the spike, the Reserve Bank's Monetary Policy Committee (MPC) is expected to hold policy rates steady during its upcoming review on August 3-5.

Under the new 2024 base series, Consumer Price Index (CPI) inflation climbed steadily from 2.74 per cent in January 2026 to 3.93 per cent in May, surging 45 basis points sequentially in the last month alone. Core inflation similarly touched 3.9 per cent in May. The Finance Ministry's latest Monthly Economic Review noted that the ongoing West Asia crisis and subsequent global shocks were keeping domestic inflationary pressures on an upward trajectory as energy costs diffuse through the economy.

GROWTH RISKS

The MPC has projected retail inflation for the April-June quarter at 4.2 per cent.

According to Jahnavi Prabhakar, Economist, Bank of Baroda, BoB Essential Commodities Index (BoB ECI) had risen at its sharpest pace since March 25 by 2.4 per cent in June 26, on y-o-y basis. In July 2026, the build-up is even higher (first 6 days) at 2.9 per cent.

The South-West monsoon, kharif acreage and reservoir level, careful monitoring of the spatial distribution of rain as well as of El Nino conditions is needed in the coming days. "Against this backdrop, we expect CPI to settle at 4.3 per cent in June 2026, with risks tilted to the upside," she said.

Radhika Rao, Senior Economist, DBS Bank also expects headline number to cross 4 per cent mark. "June CPI inflation out next week is expected to rise marginally to 4.1 per cent y-o-y from 3.9 per cent the month before, on continued normalisation in food segments and pass-through of fuel costs through the related segments," she said.

TO ADVERTISE
PLEASE CONTACT
Chennai : 044 - 28576300
Coimbatore : 0422 - 2212572
Madurai : 0452 - 2528497
Trichy : 0431 - 2302801
Puducherry : 0413 - 2224111
thehindu businessline.

Rural demand drives CV retail growth in June 2026

T E Raja Simhan
Chennai

The commercial vehicle (CV) industry reported healthy growth in June 2026, with retail sales rising 17 per cent year-on-year to 90,972 units from 77,836 units in June, 2025.

Rural markets emerged as the key growth engine with a 22 per cent year-on-year growth, significantly outpacing the 13 per cent growth in urban areas as goods movement strengthened across smaller towns and hinterland regions, according to the Federation of Automobile Dealers Associations (FADA) data.

Dealers cited steady freight activity, e-commerce-linked movement and normalising supplies, FADA said.

Commercial vehicle retail sales (in units)

OEM	June 2025 sales	Market share (%)	June 2026 sales	Market share (%)
Tata Motors	25,311	32.5	30,991	34.1
Mahindra & Mahindra*	20,483	26.3	25,015	27.5
Ashok Leyland**	14,152	18.2	15,337	16.9
VE Commercial Vehicles	7,471	9.6	7,937	8.7
Maruti Suzuki India	3,391	4.4	4,436	4.9

*Includes Mahindra Last Mile Mobility Ltd **Includes Switch Mobility Source: FADA Research

According to FADA data, the growth was led by Tata Motors and Mahindra & Mahindra, both of which strengthened their positions in the market, while some established players such as Ashok Leyland and VE Commercial Vehicles lost market share despite higher volumes.

Tata Motors retained its lead with sales of 30,991 units in June 2026, up from 25,311 units a year earlier, registering growth of 22.4 per cent. Its market share improved by around 2 percentage points, reinforcing its dominance in the CV segment.

Mahindra & Mahindra emerged as the second-largest player, reporting sales of 25,015 units compared with 20,483 units in June 2025, a growth of 22.1 per cent. Within this, Mahindra & Mahindra Ltd accounted for 23,241 units, while Mahindra Last Mile Mobility Ltd contributed 1,774 units.

Ashok Leyland recorded sales of 15,337 units, up from 14,152 units a year ago, posting growth of 8.4 per cent.

However, its market share declined. Its subsidiary Switch Mobility Automotive nearly doubled its volume to 308 units in June 2026 as against 159 in June 2025.

SMALLER PLAYERS

The industry performance reflects strong demand for medium and heavy commercial vehicles and light commercial vehicles, while competitive pressures remain intense for smaller OEMs, industry trackers said.

Poonam Upadhyay, Director, Crisil Ratings, said the healthy year-on-year growth points to broad-based strength in demand across key sectors.

"Robust growth in light CVs and medium CVs reflects sustained momentum in logistics, regional transportation and passenger mobility, supported by economic activity and infrastructure development. Heavy CV growth was relatively moderate at 8 per cent, reflecting the sector's continued shift towards higher-capacity vehicles that enable greater freight movement per vehicle and enhance fleet productivity," she said.

NTPC board clears ₹20,457 cr for Chhattisgarh's 1,600 MW project

Press Trust of India
New Delhi

State-run power giant NTPC board has approved ₹20,456.70 crore investment for the 1,600 MW Lara Super Thermal Power Project Stage-III in Chhattisgarh, the company said in an exchange filing on Saturday.

On June 5, the state-run company had sought bids from technology solutions players to help its sub-critical thermal power units operate at lower load and ensure flexibility for the electricity distribution network to use both thermal and renewable energy more efficiently.

FORM NO. NCLT. 3A Advertisement detailing Appeal [see rule 35]
Company Appeal (C/Act) 4/KOB/2025
Notice of Appeal

A Company Appeal under Section 59 of the Companies Act, 2013, for rectification of the register of members of **God's Own Country Health Resorts International Private Limited** (CIN: U85199KL2001PTC014890), was presented by **Mr. Anilkumar Santhamma Pillai Gopinathan** through his Power of Attorney holder, **Mr. Sunilkumar G.S** on the 31st day of July 2025, and the said Appeal is fixed for hearing before the Kochi bench of National Company Law Tribunal on **22.07.2026.** Any person desirous of supporting or opposing the said Company Appeal should send to the Appellant's advocate, notice of his intention, signed by him or his advocate, with his name and address, so as to reach the Appellant's advocate not later than two days before the date fixed for the hearing of the Company Appeal. Where he seeks to oppose the Company Appeal, the grounds of opposition or a copy of his affidavit shall be furnished with such notice. A copy of the Company Appeal will be furnished by the undersigned to any person requiring the same on payment of the prescribed charges for the same.

Dated 09.07.2026

Mr Sunilkumar G.S
Chamolil House, Pampalil, Perinad P.O
Kollam- 691601; Phone no.: 9746994523

Five gold medals for India at International Physics Olympiad in Colombia

Sindhu Hariharan
Chennai

India put up a stand-out performance at the 56th International Physics Olympiad (IPhO) 2026, held in Colombia from July 5 to July 12, with five students clinching gold medals. In the country-wise medals tally, India was placed at the first position jointly with China, Kazakhstan, Russia, South Korea and Taiwan. This is the second time that India has won five gold medals at the IPhO, the earlier occasion being in 2018.

This was India's 27th appearance at the Olympiad. In all these years, nearly 44 per cent of Indian students have won gold medals, another 41 per cent silver, 10 per cent bronze and 5 per cent honourable mentions, said representatives of the Homi Bhabha Centre for Science Education (HBCSE), the anchor institution for the team.

GOLD RUSH. The winning Indian team with mentors at the International Physics Olympiad

In the last 10 years, all Indian students at IPhO have won either gold (62 per cent) or silver (38 per cent) medals.

DIVERSE TOPICS

The special prize for overall winner went to a South Korean student; the award for best in the experimental component went to a student from Iran. In all, 51 gold, 80 silver and 97 bronze medals were awarded. A total of 381 students from 85 countries participated in the competition.

The 5-hour theoretical competition featured three problems based on diverse topics like the thermodynamics of paramagnetic cooling, photoionisation of ozone and dynamics of electron-positron pairs, among others.

As per information from HBCSE, all Indian students excelled in the theoretical examination, some reaching close to perfect scores.

"The experimental competition, also of five hours, challenged students to explore several phenomena related to thermodynamic processes in fluids and heat transfer. The Indian students also performed remarkably well in the experimental component," said HBCSE representatives.

Anwesh Mazumdar of HBCSE - TIFR, who accompanied the team to the event, told *businessline* that across both the theory and experiment rounds, the team displayed "exceptional diligence", leaving little scope to deduct marks.

"According to the data that we have, 64 per cent of Olympiad medallists have chosen an academic career (defined by pursuing a PhD, in any subject), and 32 per cent of medallists, academic or not, have settled in India," he added, speaking about their career path.

The team comprised Kanishk Jain from Pune, Riddhesh Anant Bendale from Indore, Rishit Garg from Dwarka (New Delhi), Shresth Suraiya from Mumbai, and Svarit Joshi from Ahmedabad, who won gold.

FORM NO. NCLT 3A
ADVERTISEMENT DETAILING PETITION
[SEE RULE 35 OF THE NATIONAL COMPANY LAW TRIBUNAL RULES, 2016]

IN THE MATTER OF SCHEME OF ARRANGEMENT OF DEMERGER BETWEEN ACUMEN CAPITAL MARKET (INDIA) LIMITED AND ACUITIES CAPITAL MARKET PRIVATE LIMITED COMPANY PETITION CP (CAA) NO. 7/KOB/2026 IN CA (CAA) NO. 3/KOB/2025

ACUMEN CAPITAL MARKET (INDIA) LIMITED
CIN: U67120KL1995PLC008674, 38/1431, ST Reddiar Building, Veekshanam Road, Ernakulam, Kerala, India – 682 035
Represented by its Managing Director, Sri Akshay Agarwal
: Applicant No. 1 / Transferor Company

AND

ACUITIES CAPITAL MARKET PRIVATE LIMITED
CIN: U66120KL2010PTC026074
64/3344, Veekshanam Road, Ernakulam, Kerala, India – 682 035
Represented by its Director, Sri Akshay Agarwal :
Applicant No. 2 / Transferee Company

NOTICE OF PETITION

A petition under Sections 230 to 232 and other applicable provisions of the Companies Act, 2013 read with the Companies (Compromises, Arrangements And Amalgamations) Rules, 016 and Rule 11 of the National Company Law Tribunal Rules, seeking approval of Scheme of Arrangement (Demerger) between Acumen Capital Market (India) Limited and Acuities Capital Market Private Limited was presented jointly by the Petitioner Companies on June 4, 2026, and the said petition is fixed for hearing before the National Company Law Tribunal, Kochi Bench on July 31, 2026. Any person desirous of supporting or opposing the said petition should send to the Petitioners' office, a notice of his intention, signed by him or his Advocate/ Representative, with his name and address, to reach the Petitioners' office not later than two days before the date fixed for the hearing of the petition. Where he seeks to oppose the petition, the grounds of opposition or a copy of his affidavit shall be furnished with such notice. A copy of the petition will be furnished by the undersigned to any person requiring the same on payment of the prescribed charges for the same.

Date: 13. 07. 2026
Place: Ernakulam

Sd/-
Aravind Sreekumar
Counsel for the Petitioner Companies

'Bhogapuram can emerge as aviation hub'

RISING STAR. India should have a much stronger seaplane network, considering its coastline and inland water bodies: Aviation Minister

bl.interview

Rohit Vaid
New Delhi

The aviation sector is gearing up for a major infrastructure and structural overhaul, with the imminent commercial rollout of the country's first seaplane service in Lakshadweep and the Bhogapuram International Airport, positioned as a massive economic aerotropolis for the East Coast.

Union Civil Aviation Minister Kinjarapu Rammohan Naidu disclosed that the government is targeting at least five major domestic carriers with fleets exceeding 100 aircraft each to match soaring demand.

Unveiling a comprehensive roadmap spanning regional connectivity, aggressive fleet expansion and indigenous manufacturing, bolstered by the recent design completion of the 19-seater SARAS aircraft, he outlined how policy interventions and a projected ₹20,000-30,000 crore government investment over the next decade will transform India from an aviation market into a global manufacturing and design hub.

Edited excerpts:

Apart from the rollout of the modified UDAN scheme, the Bhogapuram International Airport is also on the anvil. Do you see the airport becoming an economic growth engine for the region? And does it have the potential to emerge as a gateway to India's eastern corridor?

The growth of India's aviation sector over the past decade has been driven by a clear vision.

In Andhra Pradesh, that has been complemented by the vision of Chief Minister N Chandrababu Naidu to expand aviation infrastructure and create new economic centres. Bhogapuram has been conceived on similar lines. Construction has been completed, the aerodrome licence has been granted to the operator, and we are now awaiting a suitable date for the Prime Minister to inaugurate the airport.

This is not being developed merely as another airport. It is envisioned as the growth engine for North Andhra through an aerotropolis model. Along with passenger operations, it will have a strong maintenance, repair and overhaul (MRO) ecosystem, cargo facilities and an airport-led economic zone.

One of the projects I am particularly excited about is the proposed EduCity adjoining the airport. The idea is to attract leading global universities and create a world-class ecosystem for skilling and training that will support India's long-term growth.

Given its strategic location and the integrated ecosystem being planned around it, Bhogapuram has the potential to emerge as the aviation hub of India's eastern coast. The region itself is witnessing significant investments across sectors, making it an important economic destination. An airport becomes a key facilitator of that growth. Connectivity is equally important.

Bhogapuram is located on the Chennai-Kolkata highway, and will also benefit from improved road links with Chhattisgarh and inland Odisha. Within North Andhra, our focus is on providing seamless connectivity to district headquarters and major towns.

> I have consistently maintained that India needs more airlines. We need at least five major carriers operating fleets of more than 100 aircraft each
>
> **KINJARAPU RAMMOHAN NAIDU**
> Union Civil Aviation Minister

Seaplane operations have remained one of your priority initiatives. What is the current status of the programme, and when can the first commercial services begin?

Seaplanes have always been a project that is very close to me. I believe a country like India should have a much stronger seaplane network, considering its coastline, island territories and inland water bodies.

We have revised the regulatory framework, undertaken trial operations, and are now on the verge of launching the country's first commercial seaplane services between Kochi and Agatti, along with connectivity to five destinations within Lakshadweep. We are hopeful of commencing operations this month, with the aircraft, pilots and crew in place and approvals in the final stages.

Our vision, however, goes far beyond the islands. The North-East and several other States offer tremendous potential for seaplane connectivity. Once the first commercial services begin, we expect greater participation from States and private operators.

The Union Budget has also recognised the importance of seaplane operations and manufacturing, creating confidence among stakeholders. As a Ministry, we will continue extending the necessary support to develop this segment.

You have repeatedly said India needs more airlines. What is the Ministry doing to encourage new entrants and strengthen competition?

I have consistently maintained that India needs more airlines. We need at least five major carriers operating fleets of more than 100 aircraft each. The biggest strength today is demand. Passenger traffic continues to grow and what once appeared to be a milestone of five lakh passengers a day has now become the new normal.

The second important factor is the government's commitment to invest around ₹20,000-30,000 crore in aviation over the next decade. Through the modified UDAN scheme, we are extending viability gap funding, giving airlines greater confidence to operate regional routes that may not initially be commercially viable.

These two factors — a rapidly growing market and strong government support — create a compelling case for new airlines. We are also open to new ideas that can facilitate not only the entry of new airlines, but also the expansion of smaller carriers already operating in the ecosystem.

I am happy to see Akasa Air performing consistently well and expanding its fleet. We would like to see more airlines scale up in a similar manner to cater to the growing demand.

Ultimately, every policy intervention has to benefit the passenger. If policy changes can improve competition, increase capacity and provide better connectivity, they will certainly be considered.

India has become one of the world's largest aircraft markets. What is the roadmap for developing a domestic aircraft manufacturing ecosystem?

Manufacturing aircraft in India has been a long-standing dream, and I am happy to say that it is steadily becoming a reality. The C-295 programme at Vadodara has demonstrated India's manufacturing capabilities in the defence sector. On the civil aviation side, we are also making encouraging progress.

Embraer has announced plans to establish a final assembly line in India, while partnerships involving Hindustan Aeronautics Ltd are aimed at manufacturing smaller regional aircraft.

Also, last week, CSIR-NAL successfully completed the design of 19-seater regional SARAS aircraft. In the rotary wing segment also, HAL conducted the test flight of civil helicopter Dhruv NG and Airbus-Tata H125 Final Assembly Line has been inaugurated. These developments are the outcome of sustained engagement with global manufacturers and the government's Aatmanirbhar Bharat vision.

India's aircraft component manufacturing ecosystem has also expanded significantly, giving global aerospace companies greater confidence to invest here. The Bharatiya Vayuyan Adhiniyam clearly states our vision that India should become not only a destination for aircraft operations and maintenance, but also for aircraft design and manufacturing.

Today, we have a strong component manufacturing base, global companies are setting up production facilities in India and policy support is firmly in place. These elements are coming together to create a robust aviation manufacturing ecosystem.

The Prime Minister has also spoken about the need for a made-in-India civilian aircraft. We are committed to realising that vision.

Bhogapuram airport will offer a digitally enabled experience

SEAMLESS EXPERIENCE. Travellers will have access to self-service kiosks, automated baggage handling systems, modern security screening and spacious check-in areas

G Naga Sridhar
Hyderabad

The soon-to-be inaugurated Bhogapuram international airport promises to be more than a gateway to Andhra Pradesh.

Blending iconic architecture with cutting-edge technology, it is set to offer travellers a seamless, digitally enabled experience, while emerging as a catalyst for trade, tourism, logistics and business growth across the region.

Prime Minister Narendra Modi is expected to inaugurate the greenfield airport, developed by the GMR Group on an investment of ₹4,750 crore in the first phase across 2,203 acres. The ruling NDA government in the State had speeded up the construction of the airport, the foundation stone for which was laid in May 2023.

The airport's most striking feature is its terminal, inspired by the elegant form of a flying fish, symbolising the coastal identity of North Andhra Pradesh.

Travellers will have access to self-service kiosks, automated baggage handling systems, modern security screening and spacious check-in areas aimed at reducing waiting time and improving passenger flow.

The terminal has been planned to efficiently handle both domestic and international operations while providing a comfortable travel experience.

LONG-HAUL FLIGHTS

The airside infrastructure has been built for long-term growth. A 3,800-m runway, among the longest in the region, is capable of accommodating large wide-body aircraft, including long-haul international flights.

The airport is also equipped with an advanced category-I instrument landing system, enabling safer aircraft operations during adverse weather conditions.

Designed with expansion in mind, the airport can initially handle around 4.75 million passengers annually, with the master plan providing scope for substantial capacity enhancement in future phases as traffic grows.

Besides serving passengers, the airport is expected to emerge as an economic catalyst for North Andhra Pradesh by attracting investments in logistics, hospitality, aviation services and cargo handling.

The Visakhapatnam Economic Region has emerged as a major investment hub in the State, with nearly 40 per cent of the ₹24 lakh crore investments attracted by the State in the last two years, according to official data. The logistics as well as maintenance, repair and overhaul (MRO) businesses are expected to take off as GMR has earmarked 25 acres for MRO and other facilities.

Q-comm eliminating middlemen benefits horticulture farmers

Prabhudatta Mishra
Meenakshi Verma Ambwani
New Delhi

A partnership between quick commerce companies such as Blinkit and Zepto with farmer producers organisations (FPOs), developed in last few years, has addressed the price gap between what farmers receive and what consumers pay for horticulture products.

For instance, Sambhal Swarnim Potato FPO of Moradabad district in Uttar Pradesh has seen real growth from the partnership. Its turnover rose to ₹15 crore from ₹12 crore in 2024-25 after launching the collective in December 2022 under the Centre's 10,000 FPO scheme.

Over a thousand farmer-members connected with this FPO are happy that they receive ₹2-2.50/kg higher rate than at the local mandis (agriculture market yard) for their potatoes.

CONSTANT GROWTH

The quick commerce companies are pleased to see constant growth — daily potato procurement in the national capital region of a leading delivery platform is 130-150 tonnes.

Some other platforms are buying even more, but refused to share data.

> **Over a thousand farmer-members connected with the Sambhal** Swarnim Potato FPO are happy that they receive ₹2-2.50/kg higher rate than at the local mandis for their potatoes

Deepak Kumar, MD of Sambhal Swarnim Potato FPO, confirmed delivery of 15 tonnes of potatoes at about ₹15/kg to Kiranakart Wholesale, a group company of Zepto that handles wholesale procurement and distribution, and 13 tonnes to Zomato Hyperpure, the B2B arm of Blinkit, at their warehouses in Sonipat, Haryana, on July 7, when prevailing rates in nearby mandis were ₹9-12/kg on that day.

MANDI RATE

In contrast, the mandi rate of potato (grade A) in Aligarh and Sambhal on July 7 was about ₹ 7-8/kg and ₹6-7/kg, respectively.

Nasir Noor Ahmed, a potato farmer of Sambhal associated with the FPO since inception, said he received ₹11/kg from it and the payment was received in five days. For the same quality, he would not have got more than ₹8.50/kg from the local mandi.

Aligarh's Mahesh, a regular seller of potatoes to the FPO, echoed similar sentiments on higher realisation than selling at mandis.

Kumar, who has taken on lease a 10,000 sq ft warehouse at a monthly rental of ₹2.16 lakh in Greater Noida, Uttar Pradesh, to cater to demand in the NCR, said that transporting potatoes from Sambhal to a warehouse in Sonipat via Greater Noida, where grading and sorting is done, costs ₹2.50-3/kg.

NO PROFIT, NO LOSS

On how this is a sustainable business model to purchase at higher than mandi rates while still remaining competitive in the retail market, a sourcing executive with a platform said: "Currently, we are operating on a no profit, no loss model. Eliminating all middlemen by procuring through an FPO and supplying directly to consumers helps us to sell even at lower than the market rates at times. The main reason to avoid any loss is the 'return to vendor' clause and buying only grade 'A' quality of F&V (fruits and vegetables)."

India condemns attack on vessel off Oman coast

Press Trust of India
New Delhi

India on Sunday condemned an attack on a Cyprus-flagged commercial vessel off the coast of Oman that left one of its 11 Indian crew members missing.

As West Asia witnessed fresh hostilities between Iran and the US, India reiterated its call for immediate de-escalation of tension, and said the targeting of commercial shipping and civilian infrastructure in the region must end.

The US Central Command said the Islamic Revolutionary Guard Corps (IRGC) blatantly attacked container ship *GFS Galaxy* when it was transiting the Strait of Hormuz.

"A civilian crew member is missing, and the vessel is unable to continue the journey due to an onboard fire and significant engine room damage," it said.

businessline.
Disclaimer: Readers are requested to verify & make appropriate enquiries to satisfy themselves about the veracity of an advertisement before responding to any published in this newspaper. THG PUBLISHING PVT LTD., the Publisher & Owner of this newspaper, does not vouch for the authenticity of any advertisement or advertiser or for any of the advertiser's products and/or services. In no event can the Owner, Publisher, Printer, Editor, Director/s, Employees of this newspaper/company be held responsible/liable in any manner whatsoever for any claims and/or damages for advertisements in this newspaper.

TODAY'S PICK.

Piramal Pharma (₹177.10): BUY

Akhil Nallamuthu
bl. research bureau

The stock of Piramal Pharma has been in an uptrend after it found support at ₹132 in March. While there was some correction in May and June, the broader picture remains positive.

The chart shows the stock formed a higher low at ₹158 compared to the support at ₹132. The price action since July beginning shows that it has formed a support at ₹165 and the price is above both the 21- and 50-day moving averages.

Overall, the stock retains positive bias, and we anticipate a fresh leg of rally soon. Buy now at ₹177 and accumulate at ₹166. Place the stop-loss at ₹154. When the price rises to ₹190 and ₹200, alter the stop-loss to ₹175 and ₹192 respectively. Exit at ₹205.

Note: The recommendations are based on technical analysis. There is a risk of loss in trading

TATA
TATA POWER
The Tata Power Company Limited
(Mundra Thermal Power Station - UMPP)
Tunda Vandh Road, Tunda Village, Mundra, Kutch, Gujarat
Reg. Office: Bombay House, 24 Homi Modi Street, Mumbai – 400 001

NOTICE INVITING EXPRESSION OF INTEREST

The Tata Power Company Limited hereby invites Expression of Interest (EOI) from eligible bidders for the following requirement for 4150 MW UMPP Mundra Thermal Power Station (MTPS):
1. **OLA for Supply of Non-asbestos Gaskets for 3 years Ref 4100067801**
2. **Supply of DSS Pumps with Installation and Commissioning Supervision Services Ref 4100067888**
3. **Supply and Commissioning Contract of 100TR Water Cooled Chiller Ref 4100068010**

For prequalification requirements, tender fee, bid security etc., please visit Tender section of our website (**URL: https://www.tatapower.com/tender/tenders-listing**) and refer detailed Tender Notice for subject tender. Eligible bidders willing to participate in this tender may submit their Expression of Interest along with the Tender Fee latest by **20/07/2026**

CHENNAI
businessline.
MONDAY - JULY 13 - 2026

the hindu businessline.
MONDAY - JULY 13, 2026

Good problem

Many ways to resolve daytime solar power oversupply

An electricity supply-demand mismatch that pops up during the solar hours, with supply outstripping demand and necessitating curtailment of solar generation, has emerged in recent times as a niggling problem. In April, the country had to curtail 677 GWhr of electricity, which was much more than in the previous three months combined (399 GWhr); in May, it shot up further to 747 GWhr.

This means that on each day of May, 24 GWhr of electricity had to be declined; that is as much energy as 1,000 MW of capacity working round the clock could have generated — but did not because there was no demand. Solar installations are galloping at such a frenetic pace that the attendant infrastructure, such as storage and evacuation, is struggling to keep up. To be sure, a situation of comfort on the supply side looks better than one of chronic energy shortage that plagued the country a couple of decades back. But to many, curtailment seems wasteful. A recent paper produced by the Prime Minister's Economic Advisory Council members, Sanjeev Sanyal and Satvik Dev, shines a light on this complex issue. To be sure, the issue the paper highlights and the solution it flags — storage — have been flagged and discussed before.

The paper seems to overlook some key points. It speaks of the "absurdity of solar curtailment", which is indeed true — but it is sometimes more economical to give up than to store. The economic cost of storing energy could, at times, be higher than the cost of giving it up. Different elements of infrastructure rarely walk in lockstep with each other; the issue of curtailment might endure for a long time, and as long as it is within reason, it is acceptable. The paper also surprisingly fails to take note of efforts to push agriculture load into solar hours by feeder separation and solarisation. A note on the progress here and shortfalls would have been instructive for policy. That said, the paper does well to highlight the urgency of building enough storage capacity, while noting that there is progress in this direction. It notes that India has about 2.7 GW of storage capacity when it should, according to the rollout plan of the Central Electricity Authority, have 8.68 GW. However, it is equally true that almost all the upcoming power purchase tenders are for call for storage, either directly as a tender condition or indirectly by asking for 'firm dispatchable renewable energy' supply.

Storage apart, there are some useful measures whose implementation has been tardy — such as time-of-day (ToD) tariff and demand response (DR). Essentially, these have lagged because of the difficulties in installation of smart meters due to a bunch of reasons. The paper mentions ToD and DR but falls short of recommending remedies. The paper seems to suggest that building enough storage, both battery and pumped hydro, is the panacea, but it does not make economic sense to oversize storage to take in all the energy that solar produces. One practical answer is to build an international grid, but that is years away.

OTHER VOICES.

THE WALL STREET JOURNAL.
EUROPE

How the Smithsonian lost America's plot

One of the better causes of the second Trump Administration is its effort to purge the progressive political takeover of America's national cultural institutions. A case in point is the new White House report on the bad historical turn taken by the Smithsonian Institution's National Museum of American History. The press is attacking the report as an attempt to censor independent museum curation, but that's not how we read it. The 162-page "Saving America's Story," produced by the White House Domestic Policy Council, lays out in persuasive detail how the museum offers a largely critical view of American history that "no longer treats the American story as a shared national inheritance to be taught or celebrated." (NEW YORK, JULY 12)

讀賣新聞
THE YOMIURI SHIMBUN

It's time for US, Europe to renew their alliance

Russia shows no signs of ending its aggression against Ukraine, while tensions over the Iran war are escalating once again. These challenges cannot be resolved without the United States and Europe working together. The United States and Europe should overhaul their security arrangements, which rely too heavily on the former, and aim to create a stronger alliance. The NATO has clarified that it will reduce the U.S. burden in its role for European defense. The United States currently accounts for about 60% of the alliance's total defense spending. At last year's NATO summit, European nations agreed to the target of raising defense spending to 5% of their respective gross domestic products by 2035, in response to demands from the administration of U.S. President Donald Trump. (TOKYO, JULY 10)

LINE & LENGTH.

TCA SRINIVASA RAGHAVAN

From 1950 to 2025 it was an article of faith that the more a country traded, the more prosperous it would become. And this was proved to be right

But according to a recent IMF publication, that belief has now been severely dented. The article is by a former member of the White House Council of Economic Advisers who says "the world is now reevaluating the role of economic interconnectedness in global affairs, mindful that more interconnection means more dependencies that adversarial nations can leverage to get their way in other areas of international relations".

Other US officials have also said this. Unbridled trade is now a thing of the past because China plays a beggar thy neighbour game.

In other words, it is trade versus national security now. The more you trade, the more at risk your national security is. Ergo, countries have to choose a trade-off between the two.

But can they? Aren't these trade-offs available only to large manufacturing economies whose domestic markets are also very large? So if you don't have a large domestic market, you willy-nilly have to trade or provide financial services to the rest of the world, revenues from which offset the disadvantages of small market size.

Of the global GDP of $126 trillion, the US is at $33 trillion, the EU is at $23 trillion and China is at $21 trillion. These three belong to the first category. Their domestic markets are large, as are their economic capabilities.

Switzerland and Singapore belong to the second category — very small domestic market but massive suppliers of financial services globally.

All other countries are neither here nor there. They have small domestic markets and/or their economies are not large. So they have to trade because they don't have a choice.

Or rather they do have the choice of trading amongst themselves, which leaves them worse off in a large variety of ways.

THE CURRENCY PROBLEM

And that brings up another problem: in what currency do they settle their bills? At present the preferred currency is the dollar which, in terms of deterrence, has become the financial equivalent of a nuclear weapon.

In a few decades some other currency may replace the dollar and will enjoy the same advantages and benefits.

Thus if you are small either in market size or producing capacities, you are screwed. The country that supplies the reserve currency can deprive you of it. Ask Iran and Russia.

And this raises another difficulty for them. How will they earn enough dollars if they increase the proportion of trade amongst themselves? Ever thought of that?

This is not a new problem, however.

> **Unbridled trade is now a thing of the past** because China plays a beggar thy neighbour game

Sixty years ago everyone had been ecstatic over the dollar alternative for smaller economies, the Special Drawing Rights. But that was a stillborn initiative.

But while there's no real alternative to the dollar yet, the US, which is the only producer of dollars, also has a circle to square: if it wants the dollar to remain the global reserve currency (so that it can threaten other countries), it must agree to run massive trade deficits. It can't have trade surpluses and still be the provider of a global reserve currency.

This is the precise problem that China faces today. It wants the renminbi to displace the dollar and still run trade surpluses. But as the Bengalis say, *hobe na, dada*. Either shut down your factories or forget about using finance as a tool of coercion.

SO WHAT ABOUT INDIA?

India, the jolly old darling, is in a category by itself. It is a large country with a small market which isn't supplied very much by a large industrial base. Nor does it allow the export of financial services by importing money the way Switzerland and Singapore do.

But it needs the US for technology and China for goods. However, it's very reluctant to open up the way China did from 1980 to 2015. We want our cake and eat it too.

That reluctance would have mattered if the US and China cared, which they don't. India's small market makes it irrelevant. Even if India banned all trade with these two countries it would make no difference to them but we would be in serious trouble.

This is the situation in which India is. It will not be the first time. We have always had a low level equilibrium of the sort that had prevailed, hold your breath, for around 1,500 years.

Low growth, low profits, low wages, low rents, low inflation, low aspirations, everything low. This is what we seem to love.

Lessons from SBI's presence in mutual funds biz

SBI Mutual Fund's success shows how visionary initiatives, backed by professional management, can create enduring public FIs

S Adikesavan

The listing of SBI Mutual Fund this week is much more than another capital market event. It offers an opportunity for policymakers to reflect on how a public sector subsidiary, built on a strategic vision nearly four decades ago, has evolved into the country's largest asset management company. Further, it underlines an important instance in institution-building in India's financial sector.

Though India's economic reforms formally began only in 1991, a few significant institutional initiatives had preceded them. Among these was the decision by State Bank of India to enter the mutual fund business in 1987, when Unit Trust of India enjoyed a virtual monopoly in the sector.

Therefore even as market participants focus understandably on the entity's assets under management, profitability, valuation and future growth prospects, equally relevant are three broader lessons that emerge from this journey.

The first is the ability of a public sector institution to compete successfully in a highly competitive financial market, functioning within the constraints of public ownership. The SBI Fund steadily built scale and credibility, aided initially by partners such as Societe Generale and later Amundi of France. It has retained its leadership position despite the entry of several multinational asset managers and strong domestic competitors. Business leaders who have headed the Fund and contributed to its growth are our usual neighbourhood people.

Its rise has coincided with the remarkable expansion of India's mutual fund industry, driven by increasing financialisation of household savings, investor awareness, wide distribution networks and sustained inflows through Systematic Investment Plans. The industry today has over six crore unique investors, with participation extending well beyond metropolitan centres into Tier II and Tier III cities and even rural India. The spread of mutual funds has become an important instrument for the democratisation of household participation in India's corporate sector.

RESPONSE TO MARKET STRESS

The second lesson is that Indian financial institutions have demonstrated their ability to respond effectively during periods of market stress. This was evident in 2020 when Franklin Templeton (US-owned) wound up six debt schemes following severe liquidity pressures. Pursuant to directions of the Supreme Court, SBI Mutual Fund oversaw the orderly liquidation process of these schemes. The exercise ultimately enabled investors to recover more than their invested capital, reinforcing confidence in the resilience and capabilities of domestic institutions.

The third, and perhaps the most enduring, lesson relates to the importance of strategic thinking in public policy. SBI's entry into the mutual fund business was not an isolated business decision but the outcome of institutional vision.

That vision came from DN Ghosh, who became SBI Chairman in 1986 after a distinguished career in government. Nearly two decades earlier, as a 40-year-old civil servant, Ghosh had been among the select officials who worked through the night to prepare the ordinance that enabled the nationalisation of 14 major banks in July 1969. As Chairman of SBI, he would once again leave a lasting imprint by spearheading the creation of SBI Mutual Fund after first establishing SBI Capital Markets. The birth of SBI MF deserves some detailing. In his autobiography *No Regrets*, Ghosh recounts how he secured then Prime Minister Rajiv Gandhi's approval for the proposal within minutes after explaining that competition to the monopoly control of UTI would deepen India's savings market and broaden investment opportunities. The episode illustrates how timely political support, combined with institutional leadership, can shape the long-term evolution of financial markets.

DN GHOSH. Spearheaded the creation of SBI Mutual Fund

Ghosh writes in his book: "I met Sarla Grewal, who was then secretary to the PM. She was good enough to have an appointment with the PM smuggled in on the same day, adding that I had a slot of just five minutes. I was meeting him for the first time....after a few pleasantries, I came straight to the point, 'SBI has set up a new subsidiary for capital market operations. I would like it to float a mutual fund that could sell capital market-related savings instruments. Today these kinds of instruments are sold only by UTI. It has become a monopolistic monolith. Entry of a new player would activate the market.'"

Rajiv Gandhi nodded in agreement and asked, 'What prevents you from going ahead?' Ghosh explained that the holders of the new instruments had to be given tax exemption on the same scale as in the UTI. The prime minister's response was quick, 'Why not put it in the budget? You leave a note with Sarla.' The approval for SBI to float a Mutual Fund subsidiary took less than 10 minutes.

REAL ACCELERATION

However, the real acceleration in the growth of SBI Mutual Fund came in the years following the global financial crisis, alongside the rapid expansion of India's capital markets and household participation in financial assets. Top executives from SBI, on deputation to the Fund, contributed to its growth substantially, one of whom became SBI Chairman — Dinesh Khara. From assets under management of around ₹1,00,000 crore in 2014, the fund crossed the ₹10 lakh crore milestone within a decade.

The listing of SBI Mutual Fund is, therefore, not merely the public offering of a successful asset management company. It is also the culmination of an institutional journey that demonstrates how visionary public sector initiatives, supported by professional management and policy continuity, can create enduring national financial institutions capable of competing with the very best in the world.

The writer is a commentator on banking and finance

BELOW THE LINE

Lobbying in Karnataka

With nearly 20 Cabinet berths yet to be filled up in the new DK Shivakumar-led administration in Karnataka, intense lobbying has started. The Congress, with 135 members in the Assembly, is finding it hard to satisfy all aspirants. The new CM had to publicly rebuke delegations of 'supporters' either calling on him or protesting wherever he goes, demanding that their leader be given a Cabinet berth. Some legislators have even started wooing and paying 'respects' to the CM's personal astrologer in the hope that he will put in a good word on their behalf. Their belief is if supporters are not able to swing the deal maybe the astrologer will.

Fuel for thought

An ethanol conference hosted by an agriculture industry body last week suffered an unusual outbreak of what might politely be called 'simultaneous illness'. A string of high-profile invitees — including senior names from the auto industry — who had confirmed their attendance until the previous day suddenly developed pressing reasons not to show up. The timing raised eyebrows, coming amid mounting controversy over ethanol-blended petrol, with social media awash with complaints from vehicle owners alleging damaged fuel pipes and tanks.

An organiser quipped: "They had all confirmed till yesterday. Then, suddenly, they were all unwell. Remarkable that they fell ill at exactly the same time." Sometimes, the toughest question with regard to a conference is whether to attend it at all.

Saree special

A brand strategist was recently overheard saying, "In Andhra Pradesh, government departments don't just follow Chandrababu Naidu. They follow him, bookmark him, and set him as their homepage."

Seems true! It is not the first time that weaves from Andhra Pradesh are being showcased in Delhi but what makes it different is the promotional push.

The press statement not only talks about the rich heritage that the State has — Andhra Pradesh is one among the few States producing rich colourful hand-woven fabrics with 1,77,447 handloom weavers — but also that the 35 handloom products of the State are identified as 'ODOP'. Uppada Jamdhani Sarees, Mangalagiri Sarees, Venkatagiri Sarees and Dharmavaram Silk Sarees & Pavadas have got Geographical Indication (GI) recognition, which reflect the region's vibrant culture and artistic traditions. Enough to attract shoppers!

Our Bureaus

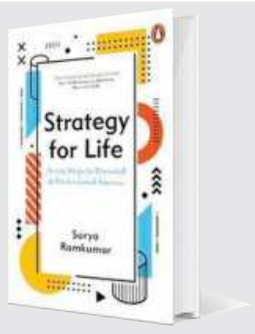
Published by Nirmala Lakshman at Kasturi Buildings, 859-860, Anna Salai, Chennai-600002 on behalf of THG PUBLISHING PVT LTD., and Printed by Ra Babu Vijay at THG PUBLISHING PVT.LTD. Plot B-6 & B-7, CMDA Industrial Complex, Maraimalai Nagar, Chengalpattu Taluk, Chengalpattu Dist., Pin: 603209. Editor: Raghuvir Srinivasan (Editor responsible for selection of news under the PRP Act). ISSN 0971 - 7528

Wayfaring through life

Uncertainty requires a deliberate way of thinking

BOOK REVIEW.

Shrinivas Susarla



Title: Strategy for Life
Author: Surya Ramkumar
Publisher: Penguin Random House
Price: ₹399

Strategy is usually associated with organisations. We build strategies for businesses, products, markets and careers. Yet one of the more interesting questions Surya Ramkumar poses in *Strategy for Life* is this: if strategy is valuable enough to guide companies through uncertainty, why do so many people leave their own lives to chance?

The question becomes particularly relevant at a time when traditional markers of success are becoming increasingly fluid. Career paths are no longer linear. Professional identities are constantly being redefined. Many individuals succeed through conventional ways yet feel uncertain about what comes next. This is the gap the book attempts to address.

Drawing on her experiences across leadership roles at McKinsey and Microsoft, Ramkumar approaches life not as a sequence of events but as a strategic challenge. Her argument is not that life can be controlled through planning. Rather, it is that uncertainty itself demands a more deliberate way of thinking.

NAVIGATING VS WAYFARING

One idea that recurs throughout the book is the distinction between navigation and wayfaring. Navigation assumes a known destination and a predefined route. Wayfaring assumes a changing landscape where progress depends less on following a map and more on continuously interpreting the terrain. In many ways, this distinction captures the reality of modern leadership. Organisations and individuals alike operate in environments where yesterday's assumptions rarely remain valid for long.

The implication is significant. In such environments, strategy becomes less about prediction and more about preparedness.

This perspective runs through many of the frameworks presented in the book. Whether discussing strategic clarity, the Problem Priority Index, the Strategy House or the Red Thread, Ramkumar repeatedly returns to a central discipline: making conscious choices about what deserves attention and what does not.

What I found particularly interesting was the emphasis on prioritisation. Many professionals spend considerable energy optimising activities without questioning whether those activities deserve optimisation in the first place.

The book argues that clarity often comes not from doing more things well, but from identifying the one problem whose resolution changes everything else.

This mirrors an observation frequently seen in organisations. High-performing companies are not necessarily those with the most initiatives. They are often the ones with the clearest understanding of where focus should be applied. The same principle appears to hold true at an individual level.

Another theme that stands out is the relationship between aspiration and influence.

In professional life, people often inherit goals from peers, institutions, industries or social expectations without realising it. Ramkumar's discussion around desires, goals and influences raises an uncomfortable but important question: how many of our ambitions are genuinely ours, and how many have simply been absorbed from the environment around us?

The question is particularly relevant in an age where comparison has become continuous and highly visible.

Where the book is strongest, however, is not in its frameworks. It is in the conversations those frameworks provoke.

Questions such as "What problem is truly worth solving?", "What is enough?", and "Whose definition of success am I pursuing?" stay with the reader long after the individual models have faded from memory.

The reviewer is a certified leadership coach and writes on human-centric leadership models

Business lessons from top of the world

The book's relevance extends to economies where political uncertainty and institutional gaps shape business decisions

BOOK REVIEW.

Atul K Thakur

Title: Made in Nepal: Lessons in Business Building from the Land of Everest
Author: Binod Chaudhary
Publisher: Harper Business
Price: ₹699 (Hardcover)

There are countries where a business grows on the back of systems. And then there are places where it grows despite their absence. Binod Chaudhary's book belongs firmly to the latter category.

It is a story that does not begin with scale or capital, but with circumstance. A trading family in Kathmandu. A modest commercial base. A society negotiating its way out of monarchy into a more open, but unsettled, political order. As the narrative unfolds, what gives it weight is not the drama of expansion, but the persistence of context. The ground beneath business in Nepal has rarely been steady.

This is not a memoir of arrival. It is, more accurately, a record of adjustment over time.

To understand this book, one must first situate it within the longer economic and political history of Nepal. For much of the 20th century, Nepal remained inward-looking. The Rana oligarchy, followed by the new phase of monarchy under the Shah dynasty, preserved a controlled political and economic system. Industrialisation was limited. Infrastructure development lagged. Private enterprise existed, but without institutional backing or policy continuity.

Unlike India, which began building a mixed economy after independence, Nepal's transition to a more open economic framework came later and in fragments. The 1980s saw early liberalisation efforts, and the democratic movement of 1990 created expectations of reform. However, the subsequent decades did not produce sustained stability. Coalition governments became the norm. Policy direction shifted frequently.

The Maoist insurgency between 1996 and 2006 further complicated the environment. It disrupted supply chains, affected investor confidence, and strained state institutions. Even after the formal end of the conflict, Nepal's transition to a federal democratic republic remained incomplete in many ways. Business did not stop in this period. It recalibrated continuously.

This is the landscape in which Binod Chaudhary operates. Every decision, whether expansion or consolidation, appears shaped by an awareness that stability cannot be assumed.

SCALING FROM CONSTRAINTS

The origins of the Chaudhary Group lie in trading, a familiar starting point for many South Asian business families. What marks a turning point is the decision by Binod Chaudhary to move into manufacturing.

In a country like Nepal, this transition carries significant implications. Manufacturing requires long-term commitment. It depends on infrastructure, logistics, labour relations, and policy predictability. None of these was fully reliable. Chaudhary's decision establishes a willingness to anchor business within Nepal, rather than operate purely through cross-border trade.

The example of Wai Wai noodles illustrates this shift clearly. It is often cited as a successful consumer brand, but in the book, its importance lies in execution. The focus is on building distribution networks, ensuring consistency, and entering markets gradually. The product's journey from Nepal into India and beyond demonstrates that scale can be achieved even from constrained environments, provided systems are carefully built. The emphasis throughout is on discipline rather than disruption. In uncertain environments, ideas alone are insufficient. Systems sustain growth.

EXPANDING TO STAY AFLOAT

As the group grows, it does not remain confined to a single sector. It diversifies into cement, hospitality, telecom, and financial services. This diversification is not presented as aggressive expansion but as risk management. Spreading investments across sectors reduces vulnerability.

Nepal's economic structure, characterised by limited industrial depth and high external dependence, reinforces this approach. Sectors perform unevenly. Policy incentives shift. External factors, including relations with India and China, influence domestic markets.

Binod Chaudhary's strategy reflects an understanding of these realities. Expansion is incremental and context driven. It does not attempt to outpace the environment. It adapts to it. This approach may appear cautious, but in Nepal's context, it is pragmatic.

The Chaudhary Group remains, at its core, a family enterprise. This is consistent with broader South Asian business traditions. However, the book pays particular attention to the process of professionalisation. Chaudhary acknowledges the need to bring in external expertise, establish formal systems, and prepare for succession. These are critical steps in ensuring continuity beyond the founding generation.

In Nepal, where state institutions have often been inconsistent, businesses are required to build their own internal stability. Governance structures, decision-making processes, and accountability mechanisms within firms assume greater importance. The book does not suggest that this transition is complete. Rather, it presents it as an ongoing process. Balancing family control with professional management remains a challenge.

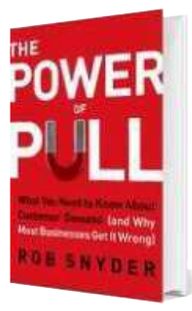
Binod Chaudhary's story is rooted in Nepal, but its relevance extends beyond it. It speaks to other economies where political uncertainty, institutional gaps, and external dependencies shape business decisions. In that sense, *Made in Nepal* is less a conventional success story and more a study in endurance. It shows how businesses can persist, adapt, and grow even when the conditions for doing so remain uncertain.

The reviewer is a policy professional, columnist and the co-author of 'Kathmandu Chronicle: Reclaiming India-Nepal Relations'. Views expressed here are personal

NEW READS.

Title: Courage under Fire
Author: Suresh Narayanan
Publisher: Penguin Business

Rather than offering abstract leadership theory, the book uses real episodes to show how leaders can navigate volatility with judgment, values and coordinated action



Title: The Power of Pull
Author: Rob Snyder
Publisher: John Murray Business

The author strips business down to one principle: Customer demand is all that matters. When business owners find real demand, they stop pushing their product onto an indifferent market

Title: Batanagar
Author: Paramita Sen
Publisher: Pan

Like other Bata company towns around the world, Batanagar's unique legacy has been all but lost to posterity in the throes of disrepair and redevelopment over the decades

thehindu businessline.

TWENTY YEARS AGO TODAY.

July 13, 2006

Industrial growth at 9.8 per cent on manufacturing boost

Buoyed by a strong 10.9 per cent growth in the manufacturing sector, the country's overall industrial output grew 9.8 per cent in April-May 2006, up from 9.5 per cent in the corresponding period last year. The mining and electricity sectors, however, continued to be an area of worry for policymakers, with both recording sharp decline in growth.

Mumbai gets back to work

Showing the greatest measure of confidence in itself, Mumbai declared no official holiday for its children, keeping schools and colleges open today, just a day after a series of bomb blasts that left over 200 dead and more than 600 injured. The city commuted, worked, transacted, traded and made business with great calm and resolve on Wednesday.

Markets put blasts behind

Stock markets shrugged off the negative sentiment caused by Tuesday's bomb blasts and rallied on the back of better-than-expected first quarter results by IT bellwether Infosys Technologies Ltd. The BSE-30 Sensex rose 2.97 per cent to 10,930.09, the highest close for the index in the last two months.

Short take

Understanding the rise of agentic commerce

Sita Mishra

The next big question in online shopping may not be what consumers buy but who makes the purchase decision. As artificial intelligence evolves from offering recommendations to acting on behalf of users, consumers may increasingly delegate searching, comparing, evaluating, and even purchasing to intelligent agents. This emerging transformation is known as agentic commerce.

Imagine asking an AI assistant to compare smartphones within a budget, evaluate reviews, track prices, and complete the purchase automatically. Or allowing AI to reorder household essentials whenever better deals appear. Rather than replacing consumers entirely, agentic commerce changes how decisions are made by reducing effort and cognitive load. Consumers today operate in an environment of information overload and endless choice. Comparing alternatives across platforms often creates decision fatigue and slows purchase decisions. Agentic commerce promises convenience by reducing search costs and simplifying the consumer decision making process. AI agents can personalise recommendations, compare alternatives in real time, and optimise outcomes based on consumer preferences and constraints. From a consumer behaviour perspective, this reflects bounded rationality, where consumers seek satisfactory rather than perfectly informed decisions.

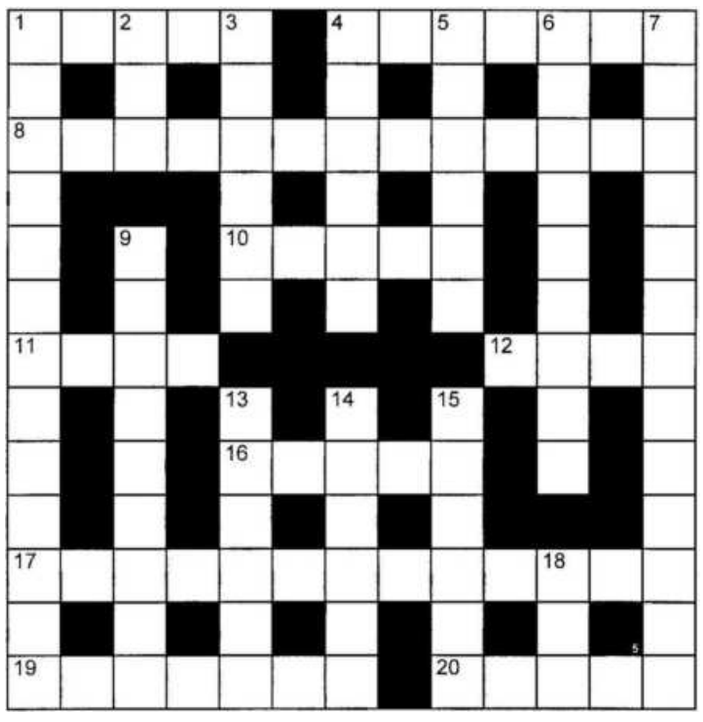
India presents a fertile ground for agentic commerce because consumers are increasingly comfortable with digital payments, online marketplaces, and technology enabled services. At the same time, Indian consumers remain highly value conscious and promotion sensitive. AI agents could strengthen smart shopping behaviour by enabling faster price comparisons and reducing information asymmetry between buyers and sellers. However, adoption may vary across categories. High involvement purchases such as travel, fashion, and premium products may continue to involve greater consumer participation because these decisions carry emotional and symbolic value.

Trust may become the defining challenge. Consumers may question whether AI agents truly represent their interests or are influenced by platform incentives and commercial partnerships. This concern connects to perceived manipulation, algorithmic transparency, and consumer autonomy.

Marketing research has long shown that consumers value perceived control during decision making. Excessive automation may weaken this feeling and create resistance, even when outcomes appear efficient. Agentic commerce also introduces trust transfer, where confidence must extend not only to brands but also to the AI intermediary making recommendations. If AI makes a poor purchase decision, who is accountable? If algorithms become marketplace gatekeepers, how will brands earn visibility? These questions are important.

The writer is Professor (Marketing), IMT Ghaziabad

BL TWO-WAY CROSSWORD 2691



EASY

ACROSS
1. The newspapers (5)
4. Vacation (7)
8. Between countries (13)
10. In what place (5)
11. Noble between marquis and viscount (4)
12. The one and the other (4)
16. Last Greek letter (5)
17. One studying for first degree (13)
19. Intent, serious (7)
20. Accepts (5)

DOWN
1. Inheritance by the first-born child (13)
2. Consume (3)
3. Showing keen practical judgment (6)
4. Warmed up (6)
5. Dawdle, linger (6)
6. Perilous (9)
7. Yellow-plumed finches (13)
9. Relinquish, deliver over (9)
13. Spring, origin (6)
14. Clandestine (6)
15. Outlaw (6)
18. Snort-winged, heavy-bodied bird (3)

NOT SO EASY

ACROSS
1. Journalists one will force to serve in the navy (5)
4. A break had occurred with oily mixture (7)
8. Test the concert pitch? (13)
10. A question of location when we embrace the lady (5)
11. Noble listener the First Lord proves to be (4)
12. Neither excluded boys that lost halves (4)
16. The last thing to give me a go at (5)
17. Student rag due: turned a different way (13)
19. Token payment made with all seriousness (7)
20. Appropriates a new edition of Keats (5)

DOWN
1. Inheritance by the first-born meeting our requirements, RIP (13)
2. Starts each April to have some nourishment (3)
3. On the day, Shakespeare's Kate was astute (6)
4. Man upset date with temperature raised (6)
5. Hang around with it in a change of role (6)
6. It isn't safe to change one's guard (9)
7. Birds cry out: warm homes wanted! (13)
9. Give in to right nurse perhaps and turn red (9)
13. Thus cure may be adapted to its origin (6)
14. Something unrevealed by carbon in a variety of trees (6)
15. An enemy plane used as decoy round North Dakota (6)
18. Bird, the skua, decapitated as it turns up (3)

SOLUTION: BL TWO-WAY CROSSWORD 2690

ACROSS 1. Ingot 4. Stirrup 8. Peaceable 9. Bar 10. Endears 12. Blue 14. Several 17. Opus 18. Melodic 20. Ilk 21. Convivial 23. Treadle 24. Goner

DOWN 1. Impressionist 2. Guards 3. Teenager 4. Sob 5. Item 6. Ribald 7. Perpendicular 11. Steam 13. Vaulting 15. Buckle 16. Adrian 19. Scud 22. Née

CHENNAI
businessline.
MONDAY - JULY 13 - 2026

ON THE CAMPAIGN TRAIL.

It's good to see more brands talking the language of the young and relying on humour, occasionally being cheeky. But the question is whether they are taking it too far?

Red hot mystery

Last Thursday, readers woke up to see the front page of a newspaper covered in red and lettered with the words "Happy 18th birthday to us. Thank you for keeping us in your hearts (and bank statements)". Below was the cheeky inscription "no logo required, you know who we are :)"

Overconfidence? Agreed the brand had been building recall around its distinctive red identity, but on social media people thought of Airtel, Kotak Mahindra Bank and several others with the red code. Without a category identifier (and a red herring in the "bank statements" line) there was confusion. Verdict: The teaser was bold but foolish.

Maxxing it

Fastrack's latest campaign, 'Gelato Maxxing', featuring actor Siddhant Chaturvedi, takes its "Never Same, Never Sane" philosophy in a deliciously unexpected direction. Inspired by the rise of the "maxxing" culture, where young consumers unapologetically immerse themselves without moderation in the things they love, the campaign cleverly connects gelato scoops with watches. Chaturvedi digs into gelato scoop after scoop, even as he straps on watch after watch on his arm, right up to the elbow — the glossy, pastel-hued, textured dials are inspired by gelato. What's more, beyond the campaign, Fastrack has partnered with Bengaluru-based premium gelato brand Milano to co-create the Fastrack x Milano Gelato Truck, taking the world of "gelato maxxing" directly to consumers. An insane idea that works brilliantly.

Football at the table

Teaming up with Coca-Cola, Westlife Foodworld, which owns and operates McDonald's restaurants across West and South India, has launched a limited-time 'Football Meals' campaign. Building on its growing line-up of limited-edition merchandise, from tote bags and sippers to bag charms and socks, the brand taps into FIFA fever to create a shareable meal that comes with an exclusive McDonald's India x Coca-Cola football collectible. Family meal, football, cola and fun moments. Together, the two brands score!

The missing N

Mobile phone brand OnePlus mixes things up nicely in a lighthearted campaign to promote its new N6 phone. The ad features a podcast-style interaction between playback singer Himesh Reshammiya and a Gen Z host, and the ask is that the letter 'N' should be avoided in the conversation. Reshammiya finds himself navigating hilarious moments, lyric callbacks and awkward fumbles, before the narrative culminates in the reveal of the OnePlus N6. A simple idea that combines humour, nostalgia, music and fun, and firmly spotlights the new product.

STATIONS AND STRATEGIES

Private radio's fight to get its voice heard

AUDIO MAKEOVER. From live IPs to digital content and tier-3 reach, FM channels are tuning into multi-platform audience preferences

Chitra Narayanan

For the radio industry, the headlines in recent months have been traumatic. Last month, HT Media pulled the plug on Radio Nasha in Mumbai, Radio One in Delhi, Mumbai and Bengaluru, and Fever FM in Chennai, surrendering the licences for the popular stations. Last month also saw TV Today's retreat from FM with the shutdown of Ishq 104.8 FM and the completion of asset transfer to Abhijit Realtors. Earlier in the year, the Sun TV Network-owned Red FM surrendered its MagicFM Mumbai licence.

Private radio players cite the unsustainable licence fees and spectrum usage fees as a huge structural challenge. Broadcasters must pay an annual licence fee based on either 4 per cent of their gross revenue or 2.5 per cent of the non-refundable one-time entry fee (NOTEF) for a city — whichever is higher. As the NOTEF bidding prices were very high in metro cities a decade ago, stations have been locked into paying huge fees that don't match their current dwindled income. Ad revenues have fallen since the rate cuts made during the Covid-19 pandemic never really corrected. Adding insult to injury, audio streaming platforms, which pose a big threat to FM players, carry none of the costs nor content restrictions. FM radio operators have been petitioning regulatory bodies to de-link annual fees from the entry fee, and allow them to broadcast news and current affairs — something that the TRAI has also recommended.

Despite the challenges, some players have survived and grown their audiences. How have they done it? In fact, DB Corp-owned MyFM actually acquired 14 channels at last year's auctions. Conversations with the leaders of Red FM (which has 68 stations across 67 cities), MyFM (44 stations, including the 14 new ones) and an energised Big FM (67 stations), which was acquired by Sapphire Media from Reliance Broadcast Network, are illuminating. These players have rewritten the audio playbook to cater to a multi-platform audience. Not just on airwaves, they are also on ground with live IPs, creating experiential platforms and digital content, and expanding into tier-3 towns.

MAKING AIRWAVES. (Clockwise from top left) Nisha Narayanan, Director and COO, Red FM; Rahul Namjoshi, CEO, MyFM; Ashit Kukian, CEO, Big FM; and a promo for *Aha Zindagi*, hosted on MyFM by actor Anupam Kher

Red FM's Director and COO Nisha Narayanan, who has been vocal about the need for a level-playing field for private radio, points out that the exits seen last month were not creative failures but "cost-structure math meeting market reality". Besides the licence fees, GST at 18 per cent vs 5 per cent for comparable media adds to the burden of FM channels, she says.

According to her, the survivors share one trait: They stopped being single-format businesses well before the financial pressure became visible. "We do on-ground, we do digital, and we do content and radio," she stresses.

For Red FM, live IP has become a core business line and not an add-on, she says. Its annual South Side Story cultural event, showcasing the South in northern cities, is a big hit and heading into its eighth season. Last season, it attracted 12,000-plus people on ground and, as Narayanan points out, the event lives on on the airwaves for months afterwards. "Brands prefer long-term IP partnerships instead of standalone sponsorships because they provide consistent audience engagement," says Narayanan.

Red FM has also been building artist/concert partnerships — for instance, Seedhe Maut Tour, Anoushka Shankar Tour and so on.

On the same frequency is Ashit Kukian, CEO, Big FM, who says the channel's new philosophy is 'One Big World', its integrated media and entertainment ecosystem, which brings together radio, digital content, creator-led storytelling, experiential platforms, live entertainment and emerging media solutions. "Through Big FM Experiences and Big Vibe, we are building IP-led platforms that allow brands to engage with audiences beyond traditional broadcasting," he says.

Interestingly, MyFM CEO Rahul Namjoshi, while acknowledging the station does a large number of on-ground events, says, "We prefer to remain a radio-first company." On the nature of the events, he says most are local in nature because that's where radio creates the strongest impact. "On podcasts, our approach is also radio-first. We create podcast-style content featuring our popular RJs, who are celebrities in their own markets, and we also collaborate with well-known personalities whenever relevant."

Why did MyFM bid for more channels in the Phase 3 auction last year, at a time when most people shied away from participating? Says Namjoshi, "The environment is definitely challenging, but every challenge also creates an opportunity if you have conviction. Our decision to acquire 14 new stations was based on our strong belief in the growth story of Bharat."

Namjoshi believes that in tier-2 and tier-3 markets, where local businesses are expanding and consumers have a strong affinity for local content in their own language, local media has a tremendous future.

FM broadcasters are doing multiple things and assert that their audiences are growing. However, Narayanan rues that there is no robust audience measurement framework for radio.

"Over 12,700 brands advertised on radio in 2025 and ad volumes grew 2 per cent year-on-year, which tells you demand exists," she says. "Radio continues to be a highly resilient and relevant medium, driven by its trust, accessibility, hyperlocal connect and ability to build a strong sense of companionship with listeners," asserts Big FM's Kukian.

There are many problems that Narayanan says the industry can solve collectively. Radio is not losing India; it's deepening its hold, she insists. All that the broadcasters want is a level-playing field for their voices to become louder.

Cannes dichotomy: The lion and the login screen

DIGITAL GADFLY

SHUBHO SENGUPTA

This year's Cannes Lions handed its Film Grand Prix to an advertisement for Anthropic's Claude, an AI assistant whose promise is that it won't show you ads. There was something ironic there. One of advertising's biggest prizes went to a commercial celebrating the banning of advertising.

That paradox defines the moment marketing finds itself in.

Every June, Cannes becomes advertising's global town square. Agencies, brands, creators and platforms descend on the French Riviera to celebrate creative excellence. Yet, walk along the Cannes palm-lined boulevard, the grand Palais des Festivals multi-purpose venue for the Cannes ad awards, and another story emerges.

Meta, Amazon, YouTube, Spotify and Reddit dominate the beaches, conversations and business meetings while inside the Palais, the biggest prizes still largely celebrate campaigns.

Neither is wrong. They're simply measuring different things.

For decades, marketing's primary output was communication: A television commercial, a print campaign, a radio spot or an outdoor idea. Today, creativity increasingly lives inside products, interfaces and systems. A recommendation engine, an AI assistant, a frictionless checkout or a brilliantly designed loyalty programme can create more lasting value than even the most memorable 30-second film.

Now wait. That doesn't make advertising less important. Good advertising is a critical part of marketing. You need to enter the customer's mind and stay there. That's the reason Coca-Cola or Haldiram keep winning. But advertising is no longer the only place where creativity generates competitive advantage.

I just saw an Ogilvy film on the World Cup that celebrates fans who "lost their voices" cheering for their teams — totally brilliant and involving, and no UI/UX can top that. But then no TV ad can top the Amazon user experience — and that's where it's at now.

This difference also explains why Cannes — the place — sometimes feels split in two. The awards celebrate traditional communication. The beaches celebrate platforms, technology. If the Palais is still the Durga Puja, the beaches increasingly resemble the streets with *golgappa* and *chaat* sellers, shoot-the-balloon stalls and nervous couples out on first dates.

ENGAGING. Coca-Cola's football World Cup-themed 'Lost Voices' ad

The same contradiction appears in who wins. Large holding companies like WPP, IPG and Havas continue to dominate the medal tables. That isn't necessarily bias. Big networks, big brands can afford higher entry fees, dedicated awards teams and multiple submissions across categories. The Olympics isn't unfair because large countries win more medals — scale matters. Cannes is no different.

(On a side note, India's relatively lean performance this year deserves similar understanding. Fewer entries, tighter budgets, more selective participation, changing jury preferences and stricter evidence requirements probably all played a role.)

Yet, the boundaries are blurring. As my young marketing friend Shubhangi says, increasingly the most creative marketing isn't just a campaign people watch — it's also a product people use. The industry's own evolution has started acknowledging this. The Creative Brand Lion, for example, recognises organisations that build enduring creative capability rather than producing a single standout campaign.

Maybe that's where the conversation should move — not from "old advertising" versus "new technology", but from campaigns to capabilities.

Creative excellence today probably needs two lenses. One asks: Did we tell a remarkable story? The other asks: Did we build something that changed the business? The strongest organisations increasingly do both.

Take the quick commerce platform Blinkit, for instance. Its yellow delivery maps, playful notifications and 10-minute promise are now as recognisable as any television campaign. Much of the brand is experienced before a single advertisement is seen. Zomato remains one of India's best advertisers, but its creativity extends well beyond campaigns. Live order tracking, witty app copy, restaurant discovery and product design are all part of the brand experience.

Skincare and haircare brand Minimalist spent relatively little on advertising mythology. Instead, clear packaging, transparent ingredients and a frictionless online experience became much of the marketing.

Cannes remains one of the world's most influential creative institutions. But as marketing expands into products, AI and customer experience, no single festival can be the sole arbiter of creative success.

The lion still matters. It may simply have to learn to share the stage with the login screen.

Shubho Sengupta writes about marketing, technology and culture from an intergenerational perspective

Has your brand become an everyday habit?

Why behavioural lock-in is the key to a consumer business' extraordinary longevity, pricing power and premium valuation

THE DEFAULT ECONOMY

KARAN TAURANI

When investors evaluate consumer businesses, they usually focus on three variables: Market size, market share and profitability. Yet, the most enduring competitive advantage often lies elsewhere — in consumer behaviour.

The world's most valuable consumer companies have not merely sold better products — they have also changed habits permanently. They have become the consumer's default choice. Once that happens, competition shifts from battles over price or features to one against human psychology.

History suggests that once consumers adopt a more convenient behaviour, they rarely return to the old one. This explains why some consumer businesses enjoy extraordinary longevity, pricing power and premium valuations. Their moat is not simply technology or distribution — it is also behavioural lock-in. India's consumption journey over the past 25 years illustrates this remarkably well.

NEW BEHAVIOURS

Entertainment was once synonymous with single-screen cinemas. Multiplexes transformed the experience through improved seating, cleaner facilities, superior technology and a family-friendly environment. Years later, OTT platforms again rewrote viewing habits by offering on-demand, personalised entertainment. India's pay TV subscriber base has steadily fallen down the years, while streaming continues to gain adoption.

Retail tells an even more compelling story. Consumers first migrated from neighbourhood stores to organised retail. They then embraced e-commerce for wider assortment and doorstep delivery. Today, quick commerce is redefining convenience altogether.

Every successive innovation solved a small friction but created a disproportionately larger behavioural change. E-commerce eliminated the need to travel. Quick commerce is eliminating waiting itself.

Industry estimates suggest India's quick commerce market could continue growing at over 40 per cent annually over the next few years .

Payments reflect the same behavioural shift. India now processes more than 18 billion UPI transactions each month, making it the world's largest real-time payments ecosystem. Consumers no longer think about carrying cash, searching for change or swiping cards.

Mobility follows the same principle. Uber and Ola did not simply organise taxis, they also removed uncertainty. Consumers know the fare before the ride, track the driver in real time and complete payment automatically.

RINSE AND REPEAT. Products that never go out of style ISTOCK

Food delivery offers another illustration. Domino's transformed India's pizza market by standardising quality, pricing and delivery. Swiggy and Zomato subsequently shifted restaurant discovery itself. Increasingly, consumers decide what to eat inside an app rather than outside it. The platform has become the starting point of demand.

REDUCING FRICTION

Across these industries, a common flywheel emerges. Companies remove one layer of friction. The reduced friction increases usage frequency. Frequency creates habit. Habit generates data. Data improves personalisation. Improved personalisation further strengthens convenience, reinforcing the habit. Over time, this behavioural flywheel becomes an economic moat that competitors find extremely difficult to replicate.

This also explains why some platform businesses sustain premium valuations despite appearing expensive on traditional financial metrics. Investors are not simply valuing today's revenues or earnings — they are also valuing future consumer behaviour, which has already been conditioned. Amazon Prime subscribers consistently spend more than non-members. Netflix viewers rarely return to scheduled television. Apple users exhibit exceptional ecosystem loyalty.

These are not merely successful products — they are also behavioural monopolies.

WHAT'S NEXT

The next behavioural transition may already be underway.

For nearly three decades, consumers have interacted with the internet by searching. Search engines trained us to type keywords, browse links and compare websites before arriving at an answer. Generative AI challenges that behaviour altogether.

Instead of searching, consumers increasingly ask. AI removes the effort involved in discovering, filtering and synthesising knowledge.

If that behavioural shift continues, the economics of digital advertising, customer acquisition, search and brand discovery could be fundamentally rewritten over the next decade.

For investors, this offers a different way to analyse businesses. Instead of asking only whether market share will grow, perhaps the more important questions are: Has the product become the consumer's first instinct? Does its absence create inconvenience? Would switching back feel like a step backwards? If the answers are 'yes' then pricing power, customer retention and long-term profitability often follow naturally.

India's next decade of consumption will, therefore, be defined not solely by rising incomes or favourable demographics but also the businesses that become embedded in everyday routines. Is your brand becoming an everyday habit?

Karan Taurani is EVP, Elara Capital

FUTURISTIC OUTPOST

GLOBAL DELIVERY HUB. TCS Seven Hills Park in Milford, near Cincinnati, Ohio

IT services giant takes an AI-led avatar

Sindhu Hariharan

As information technology (IT) services firms navigate a stormy AI terrain, industry bellwether Tata Consultancy Services is focused on transforming not just its clients' businesses but also its own.

This internal overhaul is powered both by its massive Indian centres and a team in the quaint, wooded town of Milford, near Cincinnati, Ohio State, in the US.

As TCS positions itself as an AI-first global technology services company, its Cincinnati global delivery centre serves as a hub for regulated US work, AI innovation, talent development and collaboration with universities.

Moreover, the centre — TCS Seven Hills Park — is not just the IT major's largest in North America but also its largest self-owned facility globally. The campus is nestled in 220-plus acres of wooded land — a far cry from the concrete urban jungle of most tech parks elsewhere.

"Last year, we had revenue close to $30 billion, of which about 49 per cent comes from North America. That's our largest market globally," Rajeev Gupta, Head, Delivery and Capability Centres-US, tells *businessline* at the Milford facility.

"We aspire to be the world's largest AI-led technology services company; the work towards that starts from internal transformation, and centres like these are critical to building a future-ready talent pipeline," he adds. With seating for nearly 1,100 employees, the Cincinnati outpost is helping translate the futuristic expectations of clients into practical tech solutions at its 'Bringing Life to Things' lab.

Inaugurated in 2024, the lab works on rapid prototyping and next-generation engineering solutions focused on the internet of things (IoT), AI, generative AI (GenAI) and software-defined vehicles (SDVs).

It has clients and partners across sectors, who visit the lab regularly to ideate with the team, identify opportunities and find ways to build solutions to their problems.

The advanced projects bridge physical engineering with AI. Among the high-profile projects anchored here is a digital twin of a human heart — a virtual replica of the organ, built using real-time biometric tracking and GenAI. "Our objective is to get our customers out of POC (proof-of-concept) purgatory. So, some things here are commercialised, but some of the more new-age applications are still a few steps away from commercialisation," says Brian Purvis, Project Manager, TCS.

The centre also designs solutions to train robots to work in the real-world environment — simulation systems help program a factory robot to pick up a part, apply the right pressure and other haptics. There is a section displaying 3D printing capabilities.

The campus now hosts the new specialised computer systems Nvidia Spark and Thor to work on cutting-edge AI models. You cannot also miss the drones flying around, enthusiastically operated by engineers in their downtime.

Set up in 2008, the facility's location in Cincinnati helps TCS access a readily available talent pool in a 400-500 mile radius. "The retention rates here are also some of the best in the industry," says Gupta. "We continue to expand in other US locations, but Cincinnati will continue to be one of our largest delivery centre locations," he adds.

The writer was in Ohio on a foreign press tour organised by the US State Department

PREDICTIVE OPERATIONS

Why the energy sector isn't AI-ready yet

FALTERING ROI. As technology investments meet legacy systems and poorly governed data, projects rarely go past pilots

N Nagaraj

NO BLACKOUTS. A grid drawing heavily on renewable energy can use AI to rapidly fill demand-supply gaps ISTOCK

There is a photograph that energy companies love to show at conferences. A gleaming control room, banks of screens, operators watching dashboards fed by thousands of sensors across pipelines, wells and grids. Everything visible, everything connected, everything intelligent.

The KPMG Global Tech Report 2026, which surveyed 258 technology leaders across the oil and gas, mining, chemicals, power and utilities, and renewables sectors in 22 countries, tells a more complicated story. The screens are real. The dashboards exist. But the data feeding them is often incomplete, poorly governed or trapped in legacy systems.

One in five energy companies is achieving a return of more than 200 per cent on its technology investments. The majority, 57 per cent, are at break-even. The cross-sector average for technology ROI sits at 200 per cent. Energy lags, and has been lagging for a decade of heavy investment.

THE PILOT TRAP

Almost every large energy company has run AI pilots. Many have run dozens. Predictive maintenance. Production optimisation. Automated document processing. These pilots often work. They demonstrate value. And then they stop.

Twenty-nine per cent of energy companies are still in the piloting phase, running AI projects without clear returns. Executives expect that to fall to 2 per cent within a year, a claim so confident it functions as a test of whether the sector's commitment to scale is real or rhetorical.

The obstacle is rarely AI. Around 60 per cent of energy executives say legacy systems are blocking full returns on their technology investments. An oil refinery built in the 1980s runs on control systems designed back then, robust and long-lived and wholly unequipped to share data with cloud platforms or machine learning models. Connecting them is slow, expensive and operationally risky. Upgrades are deferred, and the gap between the modern systems built on top and the ageing ones underneath — what one KPMG partner calls "digital debt" — keeps widening.

India makes this visible at scale. The National Thermal Power Corporation and the Oil and Natural Gas Corporation run sophisticated digital programmes. The State distribution companies that actually deliver electricity to homes are still fighting bad meter data, billing failures and grid losses, which in the worst-performing States exceed a quarter of the power generated. For them, the conversation about agentic AI is not yet relevant. It is about whether the underlying data is reliable enough to build on.

WHAT THE NUMBERS HIDE

The financial returns that do exist come largely from the back office, finance, procurement, HR and compliance, where generative AI accelerates document-heavy work. Over 50 per cent of energy organisations report that AI contributes 31–40 per cent of their total financial benefits. That is substantial, and a long way from the story of AI changing how energy is produced and delivered, which remains, for most organisations, ahead of them.

At the operational front-end, AI's most categorical value is in grid management. A coal or gas grid is predictable: Burn more fuel, get more power. A grid drawing heavily on solar and wind must balance variable supply against variable demand across thousands of connection points in real time, at a speed beyond human operators. India's target of 500 GW of non-fossil fuel capacity by 2030, formalised in its Nationally Determined Contribution to the UNFCCC, will make this problem acute. The technical case for AI-driven grid management in India is as strong as elsewhere in the world. The implementation challenge, given the grid infrastructure and data quality across much of the country, is correspondingly harder.

CUTTING CORNERS

Nearly three-quarters of energy executives say that prioritising speed and cost-efficiency leads to trade-offs in security, scalability and data standardisation.

The consequences in energy are physical. A cybersecurity gap in a pipeline invites infrastructure disruption. A poorly governed AI model in grid management can contribute to blackouts. Improved cybersecurity management is the single most anticipated benefit from technology investment, ranked above revenue growth and operational efficiency.

AI sharpens the threat on both sides. It enables faster, more accurate threat detection. It also puts sophisticated attack tools within the reach of bad actors. Intrusions into Indian grid infrastructure have been documented by cybersecurity researchers, though attribution in specific cases remains contested. As India's grid becomes more connected and AI-dependent, the attack surface expands. The gap between national cybersecurity policy and the operational reality at smaller State utilities is consequential in the country's energy transition.

THE MISSING SKILL

Ninety-six per cent of energy leaders believe that managing AI agents will be a key workforce skill within five years. The current generation of AI tools recommend; the next will act. An agentic system will not suggest adjusting a valve — it will adjust it. Managing that shift requires people who understand what these systems are doing, when to override them, and where human judgment remains indispensable.

India has engineering depth and a growing data science community. What it lacks, at scale, is the overlap: People who understand both the physics of energy systems and the architecture of AI. Shreyansh Upadhyay, KPMG India's AI for Energy chair, puts it plainly. The biggest challenge is in building models that are context-aware and grounded in the physical behaviour of actual machinery, not just historical data patterns. That combination is hard to hire and harder to build quickly.

We value your feedback.
Do send your comments to
quantum@thehindu.co.in

WOW. Geo-engineering against climate change

M Ramesh

"Only those who attempt the absurd can achieve the impossible" is an aphorism attributed to Albert Einstein. Regardless of whether or not the great scientist said it, today's geo-engineering attempts would certainly have brought a smile to his lips.

In what is veritably a deserved retribution for the anthropogenic destruction of Nature, climate change is wreaking havoc with a demonic frenzy. Humans' desperate bid to stave off the punches sometimes leads to incredible ideas.

One idea goes like this: Arctic ice is melting, and the waters are flowing into the sea, right? Well, why not pump the water back on to the ice and let it freeze, to thicken the ice sheets? Namely drill through the sea ice, pump seawater from beneath onto the ice surface during winter, and let the Arctic air freeze it into an extra layer. A group of researchers from different universities tried it on 1 sq km of Cambridge Bay in Nunavut, Canada, and got a foot of extra ice. The ice was more reflective, which helps climate action.

But can you scale up? Another research theorised the idea and found it feasible — only you'd need millions of wind-powered pumps to cover even 10 per cent of the Arctic ocean.

The other idea is even grander. They want to build three dams along an 82-km stretch of sea across the Bering Strait, linking Alaska and Russia via two islands. This idea, from the University of Bordeaux, France, is to prevent an ocean current phenomenon called the 'Atlantic Meridional Overturning Circulation' from weakening.

Global warming is causing it to weaken; the dam will delay it, they say.

GRID-SCALE STORAGE

ZincGel vs Li-ion battery

M Ramesh

Recently, Offgrid Energy Labs, a start-up incubated at IIT-Kanpur, announced it was setting up a 10 MWh pilot manufacturing facility in the UK to produce battery cells based on its proprietary ZincGel technology.

The company intends the UK plant to be a proving ground; the experience gained there, it says, will be used to establish large-scale manufacturing in India, where battery demand is expected to rise sharply as renewable energy capacity expands.

Unlike lithium-ion batteries, which rely on imported lithium, ZincGel uses zinc and bromine, both of which are abundantly available in India.

The ZincGel cell is unique in many other ways too. The basic zinc-bromine chemistry is nothing new, but it has not come into common use because of some key problems, mainly dendrite formation and hydrogen evolution reaction (HER).

Dendrites are the tiny metallic needles that emerge during repeated charging and they can pierce the separator and short-circuit the cell; hydrogen affects the cell's efficiency by wasting a part of the charging energy and increasing internal pressure.

Offgrid Energy Labs says the key lies in its proprietary electrolyte, which makes its anode-less architecture possible. The anode-less architecture, where the anode is formed inside the cell during charging and disappears during discharging, is something that researchers have been toying with for a while. It is a mouthwatering idea because it saves the anode material completely.

PROPRIETARY TECH

Offgrid Energy Labs says it has cracked the technology. Instead of using a zinc metal anode from the outset, the battery starts with a bare current collector. During charging, zinc from the electrolyte is deposited onto this collector and dissolves back into the electrolyte during discharge. This reduces material use and simplifies cell construction.

The startup's proprietary gel-based aqueous electrolyte, containing zinc bromide, additional zinc salts and specialised additives, prevents dendrite formation. The additives act as levelling agents and grain refiners, ensuring that zinc deposits as a dense, uniform layer instead of growing into needle-like dendrites.

The electrolyte is also designed to suppress hydrogen evolution. According to the company, proprietary additives bind free water molecules and reduce the unwanted side reactions that produce hydrogen gas.

At the positive electrode, activated carbon derived from coconut shells is used to trap bromine within its microscopic pores, thereby reducing bromine migration and improving both safety and cycle life.

ELECTROLYTE'S ROLE

Offgrid Energy Lab's technology flags a significant trend in the evolution of electrochemical cell design. The electrolyte has typically been a passive medium through which ions pass from one electrode to the other. But the emerging approach — as evident in Offgrid Energy's cell — is to expand the role of the electrolyte.

In ZincGel, the proprietary electrolyte is an active participant that performs many functions, such as suppressing dendrites and hydrogen evolution, and stabilising bromine.

The start-up, which raised $15 million from Archean Chemical Industries last year, has combined known techniques (gel electrolytes, additives, bromine-trapping carbon materials and anode-free architecture) to make a unique battery.

It says its system can deliver more than 5,000 charge-discharge cycles with round-trip efficiencies of 80-90 per cent.

Offgrid Energy is careful not to position ZincGel as a replacement for lithium-ion batteries, but as complementary in applications that require long-duration energy storage rather than high energy density.

While lithium-ion remains the preferred choice for electric vehicles and portable electronics, Offgrid Energy says zinc-bromine batteries offer advantages for grid balancing, renewable energy integration and industrial backup, where batteries are expected to discharge over 6-12 hours, operate safely over long periods and deliver thousands of charge-discharge cycles.

STEADYING ROLE. Battery energy storage systems are vital to power supply infrastructure today

CRYSTAL CLEAR

IIT-M revives forgotten route to industrial wastewater treatment

Researchers overcome long-standing bottleneck in technology based on gas hydrates

Team Quantum

For decades, scientists have known that gas hydrates — ice-like crystals formed when water traps certain gases under low temperatures and moderate pressure — could, in principle, purify contaminated water.

The idea was always attractive: Water locks itself into crystals while salts and other impurities are left behind. But there was a catch.

Separating the crystals from the remaining wastewater proved cumbersome and energy-intensive, preventing the technology from competing with membrane-based systems, such as reverse osmosis (RO).

Researchers at the Indian Institute of Technology, Madras, now say they have overcome that bottleneck.

The team has developed and patented a gas hydrate-based process that forms hydrate crystals directly in the gaseous phase, eliminating the need for filtration or centrifugation to separate them from wastewater.

In tests using actual petrochemical effluent supplied by GAIL (India) Ltd, the system recovered more than 65 per cent of the water, removed 84-93 per cent of contaminants, and recycled over 99 per cent of the hydrate-forming gases used in the process.

Developed by Dr Subhash Kumar Sharma under the supervision of Prof Rajnish Kumar, the process offers an alternative to RO. (RO's membranes are prone to fouling, require periodic replacement and generate solid waste. Thermal processes avoid membranes but consume significantly more energy.)

A mixture of propane and HFC-134a is introduced into the contaminated wastewater under carefully controlled temperature and pressure. Water molecules assemble around the gas molecules, forming solid hydrate crystals while salts, ammonia, suspended solids and organic contaminants remain in the liquid.

Prof Rajnish Kumar, Department of Chemical Engineering, IIT-Madras

The crystals are then gently melted to recover purified water, while the gases are captured and reused in the next cycle.

The technology consumed 3.88 kWh of electricity for every cubic metre of water recovered — comparable to seawater reverse osmosis and substantially below thermal desalination methods. The researchers estimate a levellised water cost of about 14 paise a litre and report a carbon footprint 35–70 per cent lower than that of conventional membrane- and heat-based technologies. The treated water met the Central Pollution Control Board standards for industrial reuse.

Kumar said the process could help industries reduce freshwater consumption while meeting increasingly stringent zero liquid discharge requirements.

The technology is at readiness level 6, indicating it has moved beyond laboratory proof-of-concept. The team plans pilot-scale demonstrations using wastewater from the pharmaceutical, textile and fertilizer industries.

CHENNAI
businessline.
MONDAY - JULY 13 - 2026

GLOBAL BYTES.

Call to end 'reckless attacks' on seafarers

International Maritime Organisation Secretary-General Arsenio Dominguez has condemned the attacks on several ships transiting the Strait of Hormuz over the past few days. He called for maximum restraint and de-escalation in the region. Hundreds of ships with around 6,000 seafarers remain stranded in the Persian Gulf since the beginning of the conflict in West Asia.

"I regret that once again I am compelled to speak out following attacks on commercial ships and innocent seafarers due to geopolitical circumstances beyond their control," he said. "These reckless attacks have again placed innocent seafarers in grave danger. No seafarer should have to risk their life simply for doing their job," he said.

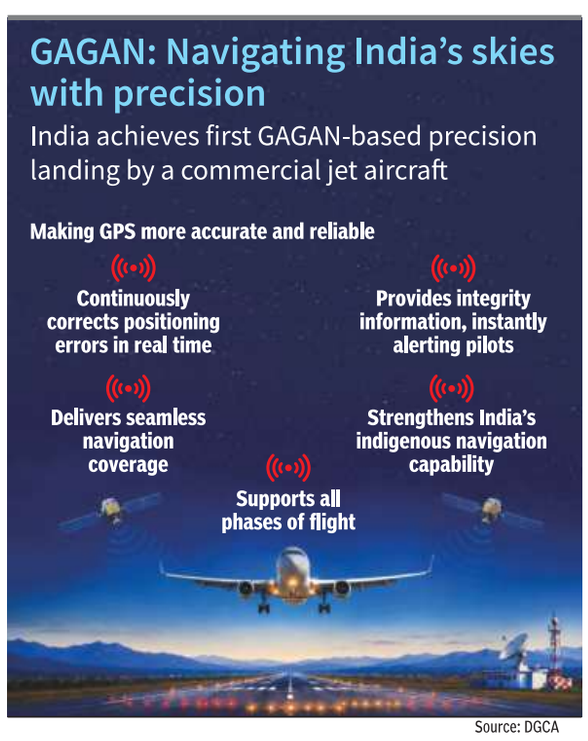
The attacks intensify the fear, uncertainty and psychological strain endured by the stranded seafarers, he said.

DP World's growing truck fleet for GCC

DP World has acquired 700 trucks to expand its road freight network in the Gulf Cooperation Council (GCC) region and offer customers greater reliability and efficiency in moving cargo across the region.

The investment is part of the company's long-term strategy to build an integrated logistics network that connects ports and terminals, economic zones and digital platforms to provide end-to-end solutions across the supply chain.

The fleet will add up to 35,000 truck trips a month, supporting domestic and cross-border trucking for DP World's customer base in the GCC. The fleet will cater to first-, middle- and last-mile requirements and support the movement of containerised and non-containerised cargo, says a release.



Source: DGCA

RE POSTS.

Powering India's Green Future, One Shipment at a Time.
V.O. Chidambaranar Port Authority has achieved an impressive 117.72% growth in Windmill Blades handling cargo during April–June FY 2026–27 compared to the corresponding period of FY 2025–26.
This remarkable milestone reflects our growing capability in handling project cargo and our unwavering commitment to supporting India's renewable energy mission through efficient, reliable, and sustainable port operations.
Driving green logistics. Strengthening trade. Enabling a sustainable tomorrow.

V.O.Chidambaranar Port Authority, Tuticorin
@vocpa_tuticorin

A stakeholder consultation meeting was convened to review the implementation and progress of the One Nation One Port Process (ONOP) initiative.
The deliberations focused on harmonising port procedures across Indian ports to improve operational efficiency, reduce logistics costs, and enhance the ease of doing business. Through close collaboration with all stakeholders, ONOP aims to foster greater efficiency, transparency, and seamless operations across India's maritime sector, while strengthening the country's global competitiveness. The initiative aligns with the vision of Hon'ble Prime Minister Shri Narendra Modi to build a modern, integrated, and world-class port ecosystem.

Ministry of Ports, Shipping and Waterways
@shipmin_india

Truck rental rates

Rentals for 18-tonne payload

Truck route	Rentals as on		% change
	Jun 25	Jul 9	
Delhi-Mumbai-Delhi	1,75,000	1,76,000	0.57
Delhi-Nagpur-Delhi	1,58,000	1,59,000	0.63
Delhi-Kolkata-Delhi	1,79,000	1,80,000	0.56
Delhi-Guwahati-Delhi	1,95,000	1,96,000	0.51
Delhi-Hyderabad-Delhi	2,02,000	2,03,000	0.49
Delhi-Chennai-Delhi	2,18,000	2,19,000	0.46
Delhi-Bengaluru-Delhi	2,25,000	2,25,000	0.00
Delhi-Ranchi-Delhi	1,68,000	1,69,000	0.59
Delhi–Raipur-Delhi	1,65,000	1,66,000	0.60
Delhi-Kandla-Delhi	1,44,000	1,45,000	0.69
Mumbai-Chennai-Mumbai	1,74,000	1,75,000	0.57
Ludhiana-Hyderabad-Ludhiana	2,03,000	2,04,000	0.49
Mumbai-Kolkata-Mumbai	2,01,000	2,02,000	0.50
Chennai-Ahmedabad-Chennai	2,14,000	2,15,000	0.47
Bengaluru-Kolkata-Bengaluru	2,15,000	2,16,000	0.46
Bengaluru-Mumbai-Bengaluru	1,44,000	1,46,000	1.37
Delhi-Thiruvananthapuram-Delhi	2,83,000	2,84,000	0.35
Guwahati-Mumbai-Guwahati	2,85,000	2,86,000	0.35
Nagpur-Chennai-Nagpur	1,65,000	1,66,000	0.60
Kolkata-Guwahati-Kolkata	1,57,000	1,58,000	0.63
Indore-Delhi-Indore	1,46,000	1,48,000	1.35
Ahmedabad-Indore-Ahmedabad	1,02,000	1,03,000	0.97
Vijayawada-Mumbai-Vijayawada	1,65,000	1,66,000	0.60
Vijayawada-Kolkata-Vijayawada	1,56,000	1,57,000	0.64
Mumbai-Nagpur-Mumbai	1,15,000	1,16,000	0.86
Mumbai-Pune-Mumbai	68,000	70,000	2.86
Mumbai-Aurangabad-Mumbai	85,000	86,000	1.16
Mumbai-Nashik-Mumbai	68,000	69,000	1.45

Figures in ₹ Source: Subham Freight Carriers India Pvt Ltd

FUTURE FOCUS

Cochin port bolsters gateway status

HEALTHY RIVALRY. Looking past Vizhinjam's transshipment growth, Cochin port muscles up its container handling capacity

V Sajeev Kumar

Cochin Port Authority (CoPA) is unfazed by the rapid rise of Vizhinjam Port as a transshipment hub and is instead focusing on expanding the International Container Transshipment Terminal (ICTT) at Vallarpadam to strengthen its position as a gateway terminal.

M Angamuthu, Chairperson-in-charge of CoPA, said the port, together with DP World, is preparing an expansion plan to make the ICTT future-ready by deepening the channel draft and augmenting terminal infrastructure to tap the growing opportunities in container traffic, particularly transshipment.

"The expansion plans are aimed at transforming ICTT into a vibrant gateway terminal and transshipment hub," he said in an interaction.

Angamuthu said he does not see Vizhinjam as a direct competitor to Cochin at present, noting that the two ports serve different markets.

"Vizhinjam is primarily a transshipment terminal, whereas Cochin is essentially a gateway terminal, although it also handles a significant volume of transshipment cargo. ICTT has a much larger demand potential as it serves central Kerala, including Kochi, which has major commercial and industrial centres," he said.

However, he acknowledged that draft limitations remain a major challenge for the ICTT in attracting larger vessels as shipping lines increasingly deploy bigger ships to achieve economies of scale.

While Vizhinjam has an 18-m draft, ICTT has 14.5 m. The terminal would need a draft of around 16 m to efficiently handle the next generation of container ships.

CoPA and DP World have jointly proposed to deepen the draft to 16 m as part of the terminal's expansion programme.

Angamuthu highlighted Kochi's strategic advantages, including its proximity to major international shipping routes and strong road, rail and inland waterway connectivity, which offer significant scope for developing integrated port-based industrial zones, logistics parks, and warehousing and value-added distribution facilities.

The advantages position Cochin port as both a major container gateway and a transshipment hub, while complementing the rapid growth of India's maritime sector, he said.

ADDING DEPTH. The International Container Transshipment Terminal at Vallarpadam is being readied to handle larger container vessels

CHALLENGING FACTORS

On the flip side, the limited industrialisation in the hinterland poses a major challenge for the port due to the restricted growth in cargo. The rising operational cost, especially the high annual maintenance dredging cost, is another worrying issue, he said.

The proximity of the Southern Naval Command imposes restrictions on crane heights and certain waterfront developments. Legacy labour issues, higher manpower costs and productivity constraints are some of the other factors affecting the service quality and overall competitiveness of the port.

Angamuthu said Cochin port had the task of maintaining the channel, so the high annual dredging cost is a severe drain on its resources. The channel is extensively used by the Indian Navy, Coast Guard and Cochin Shipyard without any cost sharing. The port has raised the issue with the government, he said.

To help rationalise the cost, Cochin port undertakes need-based dredging as the profile of the ships calling in at the port varies significantly in terms of draft.

RAIL LINKS

Asked about the idling railway line to ICTT, he said the Container Corporation of India Ltd (Concor) had launched a rail service between Coimbatore and ICTT in 2016 but halted it after about 10 months due to viability issues. The rail service could not compete effectively with road transport on the short 190 km stretch between Coimbatore and Kochi.

The GST rollout in July 2017, the consequent shutdown of inter-State checkposts, and significant improvements in road connectivity between Cochin and Coimbatore (NH-544) also favoured road service. Today, the rail service between Coimbatore and ICTT can be revitalised only through significant cost reduction.

M Angamuthu, Chairperson-in-charge, Cochin Port Authority

DP World is exploring the idea of establishing a rail service between Bengaluru and ICTT. The nearly 500 km distance augurs well for rail service vis-à-vis a road link, subject to demand potential.

He said the Kerala government's proposed Mission Samudra is in sync with the port's development objectives under the Centre's Sagarmala Programme, especially in terms of multimodal infrastructure connectivity, port-led industrialisation, green shipping and shipbuilding, and blue economy and tourism.

The Cochin–Vizhinjam cluster has the potential to become a dual-hub model for South India, reducing dependency on foreign transshipment ports and offering more options to global shipping lines, he pointed out.

He acknowledged that a few small shipping services that had earlier, in 2014-19, connected ICTT with the non-major ports of Kollam, Beypore and Azhikkal were irregular and were discontinued due to lack of viability.

The redevelopment of Willingdon Island, he said, hinges on capitalising Kochi's growing potential in heritage and cultural tourism, cruise tourism, leisure and coastal tourism, and medical and wellness tourism.

BERTH UPGRADATION

The port plans to upgrade the Q7 berth into a dry cargo terminal, especially for steel. In addition, the Q6 berth and the boat train pier will remain fully mechanised cement terminals, apart from handling other dry cargo.

The port sees a major growth opportunity in handling petroleum, oil, and lubricants (POL) cargo, alongside container handling and monetisation of land.

Ongoing infrastructure initiatives include reconstruction of the Q3 and North Coal berths as POL terminals, the leasing of adjacent land for tank farms connecting to these berths, and the leasing of land at Puthuvypeen for handling POL products (other than LPG) through the Multi-User Liquid Terminal.

PLUGGING THE MRO GAP

Aviation servicing on home soil

SARAVANAN RAJARAJAN

India is one of the fastest-growing aviation markets in the world, and the numbers tell a story of extraordinary scale. Indian carriers have collectively placed orders for over 1,500 new commercial aircraft. The carriers generated over 800 commercial engine shop visits in 2024. That number will approach 2,000 by 2030 as the narrow-body fleet powered by LEAP (leading-edge aviation propulsion) and GTF (geared turbofan) engines matures into its first heavy maintenance cycles, and could reach 4,000 annually by 2040 as the full order book enters service, according to Aviation Week's AWIN MRO Forecast.

Today, nearly 100 per cent of that work and revenue flows overseas. Indian engines travel abroad for overhauls. But the gap is not simply about engine shops. It is about the entire repair ecosystem behind each shop. In the world's most mature MRO (maintenance, repair and operations) ecosystems, 80 per cent or more of engine component repairs, including airfoils, combustor liners, fuel nozzles and non-destructive testing (NDT), are resolved locally. In India, that figure is close to zero.

Every specialised repair that cannot be done domestically entails transit time, logistics cost and foreign exchange outflow, even when the engine itself is being processed in an Indian shop. Solving this ecosystem problem is the most consequential opportunity in Indian aviation today.

India needs an integrated industrial cluster, anchored by engine MRO joint ventures, because concentration creates compound value. When an engine shop, a blade coating facility, an NDT lab, a precision machining shop and an MRO training school occupy the same industrial zone, the effect is multiplicative, with faster turnaround, lower logistics cost, shared utilities and infrastructure, and a talent pool that deepens with every new entrant.

TUNE-UP. Aircraft engine shops must multiply as India's fleet expands

The cluster strategy requires a deliberate sequencing of investment: First, anchor the zone with an engine shop partnered with an original equipment manufacturer (OEM), and then widen the web of OEM-licensed joint ventures, each targeting a specific layer of the component repair chain.

TALENT PIPELINE

Workforce constraint is a factor that no amount of capital can bypass. An engine overhaul shop runs on certified technicians with specific type of ratings, which are OEM-approved and built over years of supervised practice. India needs these at scale, through OEM-operated training schools, OEM-MRO partnerships with local polytechnics offering final immersion at engine shops, and reskilling engineers from adjacent industries like defence and automotive. The talent pipeline is also the retention pipeline: An engineer trained, type-rated, employed and competitively paid within India is far less likely to emigrate.

Indian MRO facilities face duplicated approval costs and are structurally limited in their ability to service foreign-registered and leased aircraft. The lessor landscape adds a further challenge as nearly 80 per cent of India's civil fleet is on sale-and-leaseback.

An overdue bilateral agreement with the European Union Aviation Safety Agency would open India's MRO facilities to the global maintenance market, not just the domestic one.

India's engine MRO demand is compounding faster than capacity can be built, yet the foundational ingredients for a world-class ecosystem are already in place. The fleet scale is here and growing faster than any comparable market, the engineering talent base is deep, and the policy direction is positive. French multinational aerospace corporation Safran's LEAP facility in Hyderabad, alongside a co-located training facility, is the catalyst. Every OEM conversation and policy decision that follows should answer one question: Does it keep 80 per cent of engine repair value on Indian soil?

The writer is the Global Head of Presales and Solution Consulting – Aviation, Aerospace and Defence at Ramco Systems

We value your feedback.
Do send your comments to
bl.logistics@thehindu.co.in

LIGHTING THE RUNWAY

Safe landings in Mangaluru

ALL CLEAR. A plane approaches runway 24 at Mangaluru airport, past the precision approach lighting system towers

A J Vinayak

Aircraft landing at the Mangaluru International Airport has become safer, especially under poor visibility, with the recent commissioning of the precision approach lighting (PAL) category I system for runway 24.

Approved by the Directorate General of Civil Aviation, the PAL system has been mounted on 17 massive towers erected in the valley below the tabletop runway at the airport.

The system features airfield lighting intelligent management systems (ALIMS) mounted on the specially engineered towers, extending 900 m outwards from the runway threshold.

The system provides a clear visual reference for pilots during landing approach, particularly in low-visibility conditions, such as rain, fog or haze, at a tabletop facility, such as the airport in Mangaluru.

The lighting configuration enables precise alignment with the runway centreline.

Airport officials say the system significantly improves pilot confidence and approach stability, given the topographical characteristics of the tabletop runway in Mangaluru. Enhanced visual cues aid a smoother landing, thereby improving operational efficiency and minimising disruptions.

The use of ALIMS ensures centralised monitoring and efficient management of airfield lighting systems.

According to Amber Dubey, CEO (Aero) of Adani Airports, Mangaluru, is only the second tabletop airport in Asia with such a system, after Chongqing in China. He says the tallest of these towers exceeds the height of the Qutub Minar in Delhi by 10 m.

Capt Brijesh Chowta, Dakshina Kannada MP, says enhanced operational reliability will strengthen Mangaluru's status as an important gateway connecting coastal Karnataka with the rest of India and the world.

The Mangaluru airport has introduced several measures to improve the safety of aircraft operations after an Air India Express flight from Dubai overshot the runway during landing, leaving 158 people dead, in 2010. To improve runway visibility, it had earlier installed centre-line lights — inset lights that complement the runway edge and threshold lights.

MY FIVE.

SURESH KHADAKBHAVI
Chief Executive Officer, Digi Yatra Foundation

Brisk walk, clean eating and some refined no-nos

1. **Brisk walk:** My day begins between 3.30 and 4 am. I start with 30-45 minutes of stretching and strength work (core, chest, legs and arms), followed by an hour of brisk walking outdoors. This early start sets the tone for everything that follows.
2. **Eat clean:** I stick to two meals a day. Millets, pulses, brown rice, Mediterranean salad (only on weekends), seasonal fruits and home-style Indian dishes form the base. The day, however, always begins with masala tea sweetened with jaggery.
3. **Refined no-no**: I keep things light, simple, and consistent by avoiding white sugar, white salt, flour, milk and white rice.
4. **Show up:** Five days a week, I spend nearly two hours working out, usually finishing before 6 am. I rely on a mix of app-based routines and the occasional weight session to keep things varied.
5. **Slow evenings:** Dinner is before 9 pm — a light and clean home-cooked meal. Evenings are for unwinding with family before I end the day by 10.30 pm.

CAPSULE.

Reversing the cancer spread

Millions of people are facing the physical, emotional and financial toll of cancer, a disease that claims more than 26,000 lives every day, said a report from the World Health Organization (WHO). With an estimated 20.6 million new cases and close to 10 million deaths annually, cancer remains the second leading cause of death globally, after cardiovascular disease, it added.

Reversing this trend will require a fundamental shift towards a people-centred approach that responds to the health needs and lived experiences of affected people and communities. Without urgent action, the number of annual cancer cases is projected to rise to nearly 35 million by 2050, the UN health agency said.

The WHO Global Status Report on Cancer 2026, developed jointly with the International Agency for Research on Cancer (IARC), provides an analysis of the progress across areas, including political commitment, cancer prevention, particularly through tobacco control and vaccination programmes, and investment in treatment.

The report reveals persistent and widening inequities in access to prevention, diagnosis, treatment and supportive care, leaving millions of people without the services they need. Its analysis shows that while 87 per cent of women with breast cancer survive at five years after diagnosis in high-income countries, only about 42 per cent do so in low-income countries. Fewer than one in three countries currently include cancer care in their universal health coverage packages.

COMING UP.

Turning the tide

Drowning claims more than 3,00,000 lives a year — 30 every hour — and almost a quarter of the victims are children under five. Globally, it is among the 10 leading causes of death for children aged 5-14, the World Health Organization said, ahead of World Drowning Prevention Day (July 25). This year's theme is "Unite to turn the tide", a call to every sector and every level of society to join hands to reduce drowning by 35 per cent by 2035.

MINDFUL WELL-BEING

Goal-oriented remedies

BEYOND TRADITIONAL THERAPY. CBT provides mental health support in a changing world

Gayatri Sundaravadanan

Vihaan (name changed) sits at his desk, head bent over a textbook. His NEET exam is three days away. "Will I pass?' he wonders. A notification pops up on his phone. His classmate messages to say he has received a scholarship from a prestigious university. Vihaan views this as his own failure, makes unhelpful comparisons and catastrophises.

In cognitive behavioural therapy (CBT), such reactions are described as distortions of perception. "Unhelpful thoughts such as 'My life is bad because I am not able to write the competitive exams on time, I am a failure, etc' do not provide any clear solutions," says Keerthi Pai, Clinical Psychologist, Element H Psychological Support Services, Chennai.

Unlike other traditional forms of therapy, such as psychoanalysis, CBT is goal-oriented to solve present-day problems rather than explore the distant past. And it is becoming an avenue of mental health support for the young and elderly alike.

"CBT helps the individual first identify such unhelpful thoughts through a thought journal and then, through Socratic questioning, the therapist or psychologist is able to help the individual understand core beliefs; next, through the process of cognitive restructuring, the psychologist is able to help the individual restructure these unhelpful thoughts and core beliefs. This breaks the path of self-destructive thoughts and behaviours," Pai says.

Research shows CBT to be effective in many mental health conditions, making it one of the most evidence-based psychological treatments available, according to several experts. CBT-based interventions are increasingly used to manage stress, burnout, perfectionism and work-life imbalance.

According to another CBT therapist, "There is an acceptance of this form of therapy in India today because the concept is 'goal-oriented', focusing on the 'here and now'."

PEN IT. A 'thought journal' is part of cognitive behavioural therapy ISTOCK

"Awareness of CBT has increased substantially over the past decade due to greater public discussion of mental health, online resources, and its inclusion in treatment guidelines worldwide," says Dr OT Sabari Sridhar, Professor and Head of the Department of Psychiatry, Sri Ramachandra Medical College and Research Institute, Chennai.

ADAPTIVE THINKING

There are misconceptions about CBT as mere "positive thinking" when, in fact, it is a "structured, evidence-based therapy", says Dr Sridhar. It focuses on examining the current problem and the factors leading to it, and requires the individual to be committed to the treatment plan.

CBT has been shown to be effective in helping teenagers deal with emotional and physical health challenges. For instance, it has helped reduce the frequency and severity of migraine headaches in adolescents.

And in a time of all-pervading social media, it can address the 'fear of missing out' (FOMO) syndrome, as also the fallout of digital overexposure. By teaching coping strategies, stress management techniques, healthier digital habits and adaptive thinking patterns, CBT aims to improve both psychological well-being and the overall quality of life.

Among middle-aged people and the elderly, CBT helps with illness acceptance and lowering the anxiety associated with chronic illnesses such as Parkinson's disease, stroke and cancer. It works alongside complementary therapies such as existential therapy, gestalt therapy, acceptance commitment therapy, and solution-focused brief therapy, among others. CBT also helps adults accept the diagnosis without judgment and achieve a qualitatively healthy lifestyle in accordance with their values, says Pai.

For instance, a person anxious about attending social gatherings is given not just reassurance or affirmation but also assistance with identifying and reframing the thought and behaviour that sustain the anxiety. The individual may be encouraged to attend a party for a limited period — perhaps just an hour. This small, manageable step serves as a behavioural experiment designed to challenge anxious assumptions in a real-world setting, says a CBT therapist.

This could be followed up with reflective questions in the next session. How many people spoke to you? Did any situation make you uncomfortable? How did you feel when you got home?

By examining the responses, the individual can reassess their fears and develop a more balanced, realistic perspective about social situations.

The therapy duration depends on individual condition and severity. Typically, it involves eight to 20 sessions and follow-ups, as needed. Each session lasts 45-60 minutes, usually weekly, and there is some "homework" to be reviewed in subsequent sessions.

"Research over the last few decades indicates that at least 30 per cent of those who received combined CBT and a course of medical treatment have had good improvement in their occupational skills and self-care," the therapist says, adding that greater personalisation of CBT is anticipated with the growth in digital technologies and artificial intelligence-assisted intervention.

FROM THE REGULATOR

Spotlighting gender gaps in pharma R&D

ISTOCK

The European Medicines Agency (EMA) is launching initiatives to better embed women's health considerations in medicine development and regulation. Women live longer than men on average but spend more of their lives in poorer health. This disparity is due to societal aspects, as well as gaps in disease prevention, diagnosis, and treatments, which do not always fully address their specific health needs.

"This is an area where we are seeing strong momentum at the EU and global level, and where EMA is well placed to drive meaningful progress and help shape a clear path ahead. As medicine regulators, we have a role to play to enable the development of products that are better tailored to women's needs," said EMA Executive Director Emer Cooke.

Women's healthcare is influenced by a combination of factors, including the representation of women in clinical research, persistent gaps in understanding sex-based differences in disease and treatment effect, and the need to better integrate these differences in the development and use of medicines. As a result, some treatments do not fully meet women's specific needs, and certain conditions, such as preeclampsia, menopausal symptoms and endometriosis, remain insufficiently recognised or addressed.

EMA is holding a women's health workshop on September 28-29, where it will examine research gaps across the spectrum of women's health needs, identify priorities to strengthen the evidence base and support more inclusive clinical research. It will explore further opportunities, drawing on inputs from patients, healthcare professionals, academia, industry and global partners.

EMA is already engaged in four main areas — representation in clinical trials, assessment and labelling of medicines, use of medicines during pregnancy and breastfeeding, and real-world evidence studies. The agency plans to organise more activities.

Source: EMA

LENS ON HEALTH

INTERESTED PARTIES. Visitors in Berlin watch as members of Germany's lower house of Parliament, the Bundestag, vote during a plenum session on a Bill aimed at reining in health insurance costs REUTERS

Generic semaglutide adoption: It's all about the delivery device

The absence of standardisation leaves patients confused and doctors hesitant to prescribe

Rajiv Kovil

The arrival of generic semaglutide in India was expected to make obesity and diabetes treatment more affordable and accessible. Many believed that once patents expired, the market would rapidly shift towards lower-cost alternatives. Surprisingly, that hasn't happened.

Despite competitive pricing, the biggest hurdle to adoption has been not the medicine but how it's delivered.

Semaglutide is a peptide that requires precise administration. Unlike a tablet, it cannot be swallowed. It is injected once a week using specially designed delivery systems. There lies the confusion.

Today, different manufacturers offer semaglutide in reusable pens, disposable pens, pre-filled pens, pre-filled syringes and even vials. Each device has its own loading method, priming process, dose selection mechanism and injection technique. For doctors who prescribe several different brands, remembering every device is challenging. And if the doctor is uncertain, it becomes difficult to confidently educate patients.

INJECTING CONFIDENCE. Dosage is key to semaglutide use ISTOCK

Patient education is key for injectables to succeed. Multiple devices leave patients confused — some may not prime the pen correctly, others may dial the wrong dose, and some may struggle with changing the cartridges or needles. This reduces confidence in the treatment and slows adoption.

Then there is storage and in-use shelf life — this, too, varies between products. For example, the in-use shelf life recommendation for Ozempic pens is 42 days, while Mounjaro pens are discarded 30 days after first use. These recommendations are based on formal stability studies submitted to regulators. Some of the newer reusable pen systems in India are designed to last for several months, after replacing the cartridges. These devices are convenient and potentially economical, but there have been questions about long-term in-use stability, particularly if the medicine remains inside a cartridge for prolonged periods under varying storage conditions. Such questions require answers from stability studies conducted by manufacturers and reviewed by regulators.

Another concern of physicians — each time a pen is reused, a fresh needle pierces the cartridge. Over extended periods of use, clinicians ask whether the repeated punctures, storage conditions and handling could influence sterility or product quality. These are scientific questions that are addressed through stability and microbiological validation studies before regulatory approval.

Dose accuracy is another concern. Semaglutide is highly effective, but dosing must follow a gradual escalation schedule. Accidentally administering a higher dose can increase gastrointestinal side effects such as nausea, vomiting and dehydration. When patients use multi-dose devices, education becomes essential to minimise dosing errors.

None of this means generic semaglutide will fail. Quite the opposite. As device designs become more standardised, doctors will be more comfortable prescribing them and patients will be more confident using them — a key factor in the next phase of India's obesity and diabetes treatment journey.

The writer is a diabetologist and obesity physician, and the founder of Zandra Healthcare. Views are personal

Data safety law must treat health records distinctly

BY INVITATION

MILIND ANTANI

Patient trust is the cornerstone of healthcare. Having practised as a surgeon before transitioning to healthcare law, I have seen how the doctor-patient relationship depends on the assurance that sensitive medical information remains confidential and secure. As India's healthcare ecosystem becomes increasingly digital, the question is no longer whether health data should be protected, but whether it warrants protection distinct from other forms of personal data.

The Digital Personal Data Protection Act (DPDP Act), 2023, has established India's first comprehensive framework for digital personal data governance. While its consent-centric approach may be suitable for many sectors, healthcare presents unique ethical, operational and public interest considerations.

A significant gap in the DPDP Act is its failure to distinguish health information from ordinary personal data. Unlike the European Union's General Data Protection Regulation (GDPR), which classifies health information as a "special category" requiring heightened protection, the DPDP Act applies a uniform framework for all personal data. As a result, a patient's psychiatric history, HIV status, genetic profile or cancer diagnosis receives the same statutory treatment as an individual's name or email address, despite the vastly different consequences of disclosure.

This distinction is reflected in constitutional jurisprudence. In *KS Puttaswamy vs Union of India* (2017), the Supreme Court recognised informational privacy and bodily autonomy as integral to the fundamental right to privacy, acknowledging the harm from unauthorised disclosure of medical information.

Specialised safeguards become even more inalienable when involving genetic and genomic data. Genetic data is immutable, uniquely identifiable and capable of revealing information about individuals and their biological relatives. Misuse in employment, insurance or social settings can have lifelong consequences.

FOR PATIENT'S EYES ONLY. Keep medical records private ISTOCK

The Act's reliance on consent also presents practical challenges. Healthcare delivery often requires rapid information-sharing among treatment providers, particularly during emergencies. The framework should, therefore, recognise deemed or implied consent while maintaining accountability and safeguards.

Similarly, for cross-border data transfers the Act may be insufficient for sensitive medical information. While data flows are essential for research and innovation, safeguards are necessary when genetic, reproductive, biometric or mental health data is processed outside India.

RIGHT TO ERASURE

Record retention is yet another area of concern. The DPDP Act grants individuals the right to seek erasure of personal data, yet healthcare providers are often required to preserve medical records for treatment, insurance claims, regulatory investigations and medico-legal purposes.

All of this makes a case for a healthcare-specific carve-out under the DPDP Act. Such a framework should also align with initiatives such as the Ayushman Bharat Digital Mission. The recently announced unified health interface Aarogya Setu 2.0 and other digital health initiatives have the potential to become healthcare's UPI moment in India.

A well-designed framework must protect patient dignity and confidentiality while ensuring the regulation never becomes a barrier to care itself.

The writer is Lead, Pharmaceutical and Life Sciences Practice, Nishith Desai Associates. Views are personal

CHENNAI
businessline.
MONDAY - JULY 13 - 2026

‘Concerns over restricted access to frontier AI models overblown’

ROAD AHEAD. Next phase of enterprise adoption will hinge more on reimagining business processes: TCS CEO

bl.interview

Vallari Sanzgiri
Thomas K Thomas
Mumbai

Artificial intelligence has become the defining force reshaping the global technology industry, but questions remain over who will ultimately capture the value — from frontier model developers and hyperscalers to IT services firms.

TCS Chief Executive Officer & Managing Director K Krithivasan discusses how AI is changing the economics of IT services, and why the next phase of enterprise adoption will hinge less on the latest models and more on reimagining business processes. *Excerpts:*

AI is delivering 10-15 per cent productivity improvements that you’re sharing with customers. Will the IT services industry eventually become a lower-revenue business unless clients significantly increase the amount of work they outsource?

It does not impact the top line. In fact, we encourage our associates to talk to clients whenever there is an opportunity to deliver high productivity and proactively have the discussion even if it becomes deflationary on the overall top line. Whenever customers see this benefit, they almost always use the extra savings or surplus to deliver more projects. So, it does not net impact the top line. It brings productivity to our customers.

But in two years of generative AI, why are clients still hesitating? Is it governance, unclear ROI or complexity of scaling?

It is the complexity of the enterprise. Every enterprise is so complex. It’s one thing to do a proof of concept (POC) and find what looks very good. But making it production-ready, scaling it and seeing the true business benefit takes some time. That’s why you have to reimagine the whole process.

Are conversations moving beyond POCs? A lot of companies say AI is not really bringing the expected impact.

That’s where we are helping our customers by saying where the true value lies. In fact, the thesis we have been putting out is that the role of system integrators will only increase and they will continue to remain critical because we understand the customer’s context.

We understand how AI can bring value for them. And we know how we can help them reimagine their business process. I think we will see AI adoption increase.

I don’t think adoption will decrease. That could be always like some short-term disillusionment. But eventually people will realise this is a technology for the future.

Tech giants are now setting up Forward Deployed Engineer (FDE) teams. Do you see this environment getting more competitive?

SaaS players have been there for a long time with their professional services team.

But they still did not displace the system integrators because of the value we bring.

> The differentiator we bring in is the knowledge about the customer and how a particular technology can be leveraged to deliver the business outcomes
>
> **K KRITHIVASAN**
> CEO and Managing Director, TCS

We have a complete understanding of the customer context. How to make these products work with the rest of the customer’s IT infrastructure and the priorities of the customer. The differentiator we bring in is the knowledge about the customer and how a particular technology can be leveraged to deliver the business outcomes. This provides us a good opportunity to work with FDEs, model players and deep tech companies who may not have the same depth of customer context.

You have termed AI revenue as ‘lumpy’.

So, the context for what I said is how we qualify AI revenue. Everybody has their own definition. We have taken a conscious call to keep it very sharp. We consider only those projects where there is an end-customer value because of AI. Many of those projects tend to be done over a period of two or three quarters.

So, if the project itself is so short, how do you think the model is sustainable in the long term?

In the short term there is so much work to be done in AI among our customers. The true value of AI will come in only when we are able to help change the customer’s business value chain. Transform and make them deliver, do better on top line and also improve their customer experience. We have so much of headroom in these projects. So, the sustainability on that is not a problem at this time. We believe this can continue to accelerate more.

Everyone is partnering with frontier AI companies. So, what makes TCS a differentiator from the other global system integrators?

You need to look at our overall strategy on AI. We put out our approach as what we call infrastructure to intelligence. There is a layer of infrastructure, there is a layer of model and data, there is a layer of agents, there is a control agent where there is a control plane, and then there is an experience layer. What we are doing is we are operating in each one of the layers. Our story is fairly comprehensive end-to-end so that we are able to deliver ultimate business value.

On one hand, there are open-source platforms like DeepSeek, and on the other, you have the likes of OpenAI and Anthropic. Do clients have a preference for one over the other?

There are concerns about trust with some models, but clients are taking a very pragmatic view from a cost perspective. In the end, we expect most customers to use multiple stream models.

Customers will choose based on the workload and the cost. Increasingly, we find many situations where a small language model is more preferred than a large model.

How do you play in an environment that is also controlled by geopolitics, where you do not have access to all the features of a particular platform as it happened recently with Anthropic?

To me, that is overblown because many customers have not even leveraged all the features of the previously released models or what is available to them fully.

While there is always a question of why Mythos is not available to me, a common question we ask customers is: what did you do with the model available to you before? What can you do with the models available to you that can get you as close to what Mythos is. So, it is not a major disadvantage.

Have you looked at any of the Indian sovereign models to deploy?

We have been in good discussions with them, but we also have the capability to create a small model internally.

Do you agree that we need a sovereign model?

We will need a sovereign model because you do not want to lose to the outside world where you do not have complete control.

New global business verticals, leadership changes at TCS

Vallari Sanzgiri
Mumbai

MARKET FOCUS. The new business verticals will cater to TCS’s North America, Europe and global businesses

Tata Consultancy Services (TCS) on Sunday announced new global business verticals and multiple leadership transitions for its existing verticals across North America, Europe and global businesses, as per internal e-mails viewed by *businessline*.

TCS has carved out autonomous business operations, a dedicated sales organisation focused on driving sales specific to such operations.

The unit will work across industry-focused business process operations and enterprise business operations, helping to shape propositions and deepen account engagement.

“Autonomous business operations is emerging as a significant opportunity for TCS as clients look to reimagine business processes, improve productivity, build resilience and unlock AI-led operating models. This opportunity spans both industry-focused business process operations and enterprise business operations, creating the need for sharper sales focus and more integrated client engagement,” said Aarthi Subramanian, Chief Operating Officer at TCS, in the e-mail accessed by *businessline*.

This new business unit will be led by Akhilesh Tiwari, who most recently led the communications, media and information services business group.

Tiwari will report to Subramanian.

TCS is also carving out Travel, Transport & Hospitality as a separate segment in the AI era. Arun Pradeep will be the business group head for the unit.

Pradeep will assume his new position immediately and report to Krithivasan.

Meanwhile, Tiwari’s previous business unit — Communications, Media, Information Services & Technology — will be integrated as a single business group and led by V Rajanna, who currently heads the Technology, Software & Services Business Group.

Rajanna will focus on strengthening the company’s market position, deepening client engagement across each segment and unlocking new growth opportunities and will report to K Krithivasan, CEO and MD at TCS.

The company also announced a separate business group for its US West Coast operations, home to many of the leading companies in technology, semiconductors and software.

INDUSTRY SEGMENTS

The business group will focus on accelerating growth of industry segments like AI, quantum, semiconductors and product engineering.

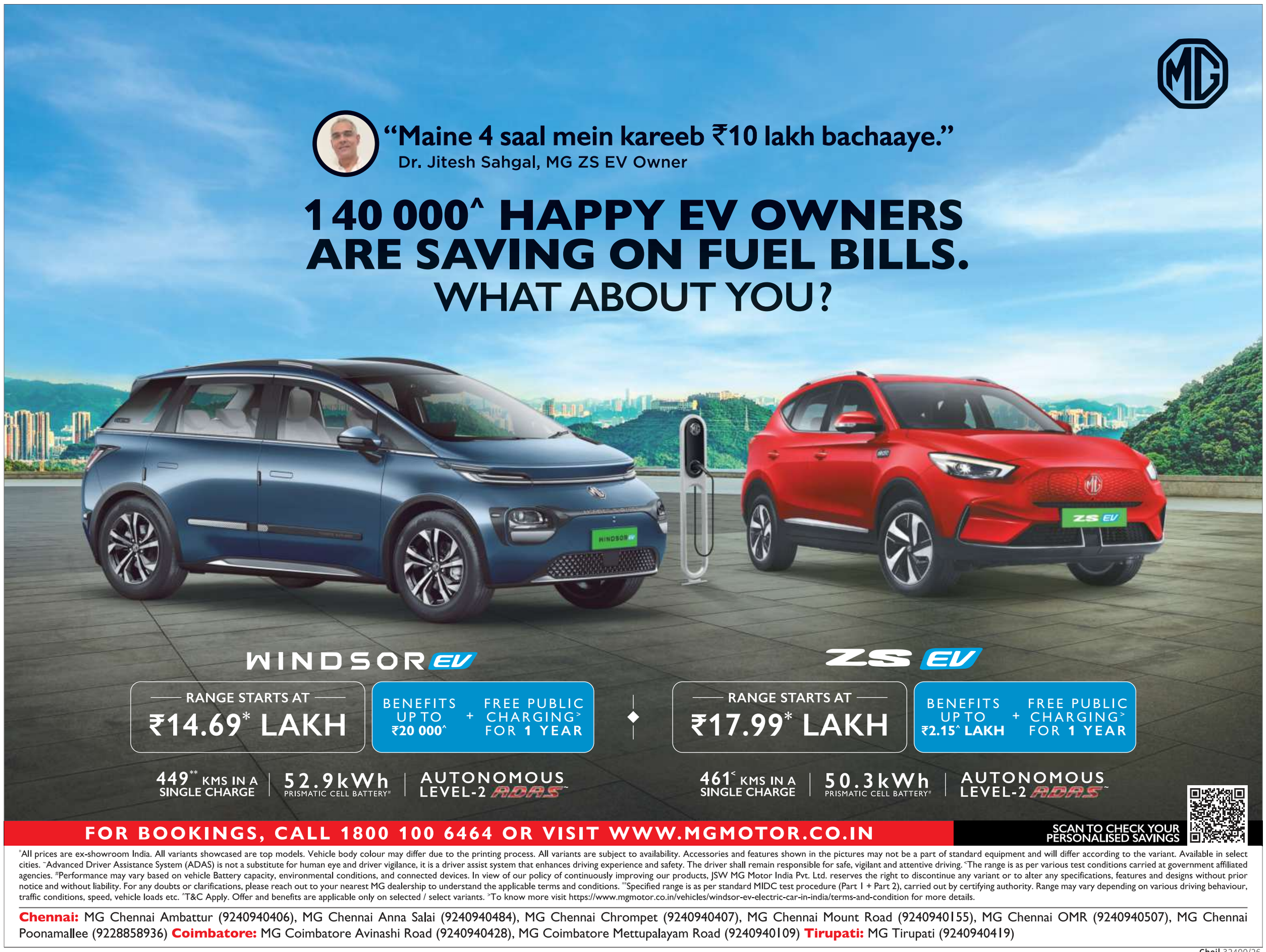
Beyond client growth, the unit will play an important role in bringing together technology companies, start-ups, academia and other ecosystem partners. Akhilesh Tripathi will lead this new group, while also leading the Digitate business in the interim.

Describing ServiceNow as a “strategically important platform ecosystem”, the company launched a dedicated business unit for it. This department will be headed by Rajnish Palande, current ISU Head for BFSI Americas, US East Insurance at TCS, who will take over as Global Head of the ServiceNow Practice. Palande will be responsible for driving the global ServiceNow agenda, ensuring end-to-end accountability for customer success and ServiceNow as-customer engagements. In this role, Palande will report to Vikram Karakoti, Global Head, Enterprise Solutions.

TCS announced Kumar Narayanan, current ISU Head of North America Energy & Resources, as the head of the Cybersecurity unit. Previously, Narayanan led the North America Energy & Resources ISU and will report to Subramanian.

Sabyasachi Chandra, who currently heads the North America Utilities unit, will take over Narayanan’s earlier role.

Meanwhile, Ganesa Vaikuntam, who currently leads the Cybersecurity Service Line, will take over as the ISU Head for Life Sciences UK and Europe.

Palande’s former BFSI Americas segment will be reorganised into two business groups with Rakesh Kumar, current ISU Head for BFSI US West, and Mohan Veeturi, the current ISU Head for BFSI US East Banking, assuming the roles of Business Group Heads.

Susheel Vasudevan, the current business group head BFSI Americas, will move to a strategic role, reporting to Krithivasan.