

Childlike innovator-entrepreneur mindset

Curiosity, humility, intuition, learning and determination are the handmaidens of growth and innovation



INNOCOLUMN
R GOPALAKRISHNAN

As I write my 50th Innocolumn for *Business Standard*, I reflect on the soft side of innovation and entrepreneurship. Entrepreneurs are like the repeat Everest climber, George Mallory, who when asked why he persisted, replied, "Because it is there." So it is with entrepreneurs; they feel an irresistible urge. Success-seeking entrepreneurs behave childlike — curious, humble, intuitive, learning and determined. Stories of common people like us are instructive because our daily grind becomes visible; our anxieties, self-doubt and irrational determination

are all palpable. Here are two stories. **R Ramanujan:** An indigent Tamil from Kumbakonam arrived in Bombay in the 1930s. His modest job with a local steel trading firm catapulted him into oil tank construction. In the early 1950s, he set up on his own. For a Marwari lad to do so would have been normal, but for a Tam Bram, the act was extraordinary. His company had its ups and downs over the next five decades, but it still flourishes. His grandson, Anand Raghavan, captured the human emotions of the family journey:

"My grandfather was advised to temper risk and ambition, but he would say, 'I arrived with one dhoti and, if required, I will return with one dhoti.' Fearlessness faces adversity more elegantly than a failed risk assessment. Work fulfilled my grandfather's spirit, money was a collateral for distribution — our home had a stream of villagers seeking financial assistance. Nobody left empty-handed."

In the 1980s, external events caused the company to go bankrupt. The family rearranged its spending. The telephone was cut for almost a year. When

Anand was an engineering student, his friend's father would visit Bangalore and stay at the Taj, MG Road. However, Anand's father, Babu, stayed at the Woodlands Hotel, where Anand would meet him in a spartan room. Babu stood quietly, sending Anand only love as a response to his dejection that his father could not afford the Taj.

Anand says, "My father worked with the quiet resolve required to travel through the landscapes of failure. His simplicity, courage and contentment enabled him to. Qualities that money can neither buy nor defeat."

Yash Sanghavi: A young Yash Sanghavi inherited ₹30,000 when his father died with absolutely no knowledge of the family business of engineering. It was a near-death experience, which caused him to reflect and take risks. "When you have little to lose, you just have to take some risk," said Sanghavi enigmatically.

Sanghavi has an unobtrusive personality. His behaviour makes him appear as a natural connector with people. He built a network of professional contacts with purchasing managers in

important chemical-oriented companies. He started travelling abroad. Some business success followed. As mentioned in the Ramanujan story above, and as is the social custom in Indian families, indigent relatives and friends would request help from their better-off relations. A modestly successful Sanghavi entertained requests for help as far as he could handle them.

Sanghavi had developed good business relations with Kyowa Hokko. The head of marketing in Asia, Raymond Goh, repeatedly said, "Biologics is important and vital for future medicine." As a result of this comment, culturing, fermentation and natural chemicals began to interest a curious Sanghavi. His knowledge gap set his curiosity on fire. He stumbled on to the potential of stem cells. A South Korean company, Sewon Cellontech, agreed to license their technology to him.

For Sanghavi, the building blocks came together miraculously. He was personally curious; his son acquired an MSc degree abroad in stem cells, and he assembled biotech experts who learnt stem cells, like Vinayak Kedage, a PhD

in tissue culture. In 2007, Regenerative Medical Services Private Limited (RMS) was born.

RMS describes itself as "the leading biotech company, focused on the delivery of the most advanced cell therapy treatments". The company aims to be "the first in the world to offer bone and cartilage cell therapies."

Cell-based therapeutics and stem cell bioprocessing repair bone and cartilage cells in a natural way. Suitable cells are extracted from the patient, brought to Lonavala, where they are multiplied and then sent back for injection into the suffering patient. Developing the cell multiplication technology in India, perhaps the first in the world, clearing all regulatory requirements, and commercialising the product and service, all pursued with determination.

Lesson: As the late C K Prahalad pointed out, growth requires that ambition should exceed resources. These stories exemplify Prahalad's point. Growth, innovation and entrepreneurship are intertwined like a spaghetti. It takes curiosity, humility, intuition, learning and determination to untangle the spaghetti.

The writer is an author, corporate advisor and distinguished professor of IIT Kharagpur; rgopal@themindworks.me

CHINESE WHISPERS



All over a cow

Stray cattle are a common sight on Odisha's newly built highways. It is also not uncommon to see them hit by speeding vehicles. Biju Janata Dal member of Parliament Tathagata Satpathy (pictured) gave the Opposition some fodder on Twitter when he tweeted about Bharatiya Janata Party chief Amit Shah, who is touring the state. "Amit Shah's carcade hits a cow at Barchana, Orissa. Animal badly hurt. Holy cow! - TS," Satpathy posted on his account @SatpathyLive. BJP baiters had a field day discussing if gaurakshaks would attack Shah now while others added details of how multiple vehicles hit the cow. Yet others discussed the semantics of "carcade", saying it should be "cavalcade".

Hugging=superpower status?

There seems to be a method to Prime Minister Narendra Modi's penchant for hugging heads of state and government, and it is evident in the messaging of Bharatiya Janata Party (BJP) workers among people. BJP and Sangh Parivar workers across the country and particularly in Uttar Pradesh have taken it upon themselves to tell people how some of the strongest men in the world hugging Modi — US President Donald Trump and Israeli PM Benjamin Netanyahu being the latest example — was a sign that India is finally seen as a superpower for its economic and military might under the three years of the Modi government. This, or so is the word on the ground, had not been possible with any of Modi's predecessors. The Congress has tried to counter this by releasing video footage of then US president Ronald Reagan holding the umbrella for Rajiv Gandhi during the latter's visit to the US in the mid-1980s.

Cycle war

A battle is brewing in Uttar Pradesh over the humble cycle. After state Urban Development Minister Suresh Khanna said unused cycle tracks in the state that were causing traffic congestion would be demolished, former chief minister Akhilesh Yadav sought to remind the ruling Bharatiya Janata Party (BJP) the health benefits of cycling. "Cycling is beneficial for health, environment and economy," Yadav said in a tweet. Earlier, a BJP spokesman had alleged that the real motive for constructing cycle tracks by the Samajwadi Party government, which was in power till this year's Assembly elections, was to promote its election symbol, the cycle.

How to arrest deterioration in state finances

Despite adhering to hard borrowing limits, states have unsustainable debt levels. It's time for the Finance Commission to amend fiscal rules



ANANYA KOTIA

The combined stock of debt owed by Indian states is about 21 per cent of gross domestic product (GDP) — excluding UDAY bonds — today and is proliferating unsustainably. Higher borrowing (fiscal deficit) by states, even though it remains within the annual target of three per cent of GDP, threatens the sustainability of sub-national debt at present levels.

India's fiscal rule framework imposes legal limits of three per cent of GDP on the fiscal deficits of central and state governments. Adhering to these borrowing limits, though prudent economics, makes for difficult politics as expenditure is curtailed. It is, therefore, a significant achievement that Indian states have largely operated within their three per cent fiscal deficit limits in the past decade.

This raises a paradox: Why is the states' debt unsustainable today despite their commendable adherence to hard borrowing limits? Though high primary deficit of the states is one reason, there is also a deeper, conceptual reason for their deteriorating debt levels.

Internally inconsistent fiscal rules

The fault lies not in the inadequate implementation of fiscal rules by the

states but in the design of these rules themselves. A three per cent cap on fiscal deficit is too high to stabilise the states' debt around the desired level of 20 per cent. Why then was the states' fiscal deficit target set at this level?

Though an insubstantial, post-facto justification, based on simplistic fiscal arithmetic, came from the 12th Finance Commission, the level of the states' fiscal deficit target was probably kept at three per cent to make it politically palatable by maintain equality with the Centre's deficit target.

But the symmetry in the deficit targets for the states and the Centre was, and remains, inconsistent with the widely divergent debt levels of the two tiers of the government. While the annual fiscal deficit targets of three per cent of GDP are equal for both the Centre and the states, experts within the government and outside have long argued for an unequal division of general government (states plus the central government) debt, with 40 per cent apportioned to the Centre and the residual 20 per cent to the states. Thus, by design, India's fiscal framework creates a tension between the equal targets for annual flows of borrowing (that is, fiscal deficit) on one hand and the unequal levels of the desired stock of accumulated borrowing (that is, debt) on the other.

The importance of the level of debt

What matters for macroeconomic stability is not the value of debt in rupees but the magnitude of debt relative to the magnitude of GDP, that is, the debt-GDP ratio. In a country with high nominal GDP growth like India, this has key implications on how fiscal data are



ILLUSTRATION: BINAY SINHA

interpreted. As GDP grows rapidly, it partially erodes the debt-GDP ratio each year because even if debt rises in magnitude (due to fresh borrowing), it shrinks in proportion to GDP.

For example, at present levels of nominal GDP growth of 11-12 per cent, about 11 per cent of the debt-GDP ratio is eroded each year merely on account of GDP growth. In the previous fiscal year (FY17), this was over five percentage points of the central government's debt ratio of 49.4 per cent of GDP. Therefore, despite fresh borrowing of 3.5 per cent of GDP last year, which added to the magnitude of debt, the Centre's debt-GDP ratio decreased from 49.4 per cent in FY17 to 47.4 per cent of GDP in FY18. How? Because between FY17 and FY18,

GDP growth eroded as much as 5.5 percentage points from the central government's debt-GDP ratio.

States, however, are not so lucky. GDP growth erodes their debt-GDP ratio by only 2.1 percentage points, less than half as compared to the Centre. Like in the case of the central government, this is about 11 per cent of their present debt-GDP ratio of just over 20 per cent of GDP. The rate of erosion (that is, 11 per cent) is the same for both tiers of the government. However, in the case of states, this erosion rate works on a much lower debt-GDP ratio of 20 per cent of GDP, yielding a smaller annual growth-erosion as compared to that of the central government. Though counter-intuitive, it follows

therefore that the Centre can afford larger deficits because of its larger stock of debt alone. A symmetry cannot be forced on the targets for fiscal deficits of central and sub-national borrowing given the significant difference in their present and desired stocks of debt. Any such attempt will simultaneously induce the debt-GDP ratios of the two tiers of the government to converge. Currently, at around three per cent of GDP, states are borrowing more than their annual erosion of debt due to nominal GDP growth. If this trend continues, their debt-GDP ratio will continue to rise, eventually stabilising at around 30 per cent, far above the desired level.

To the extent that debt is taken as an anchor around which fiscal policy is planned, it may provide for a rare infusion of logic in the otherwise dismal science of setting the levels of fiscal targets. An upper bound for fiscal deficit can easily be derived from the desired level of debt. At 11-12 per cent of economic growth, converging to the desired debt-GDP ratio of 40 and 20 per cent for central and state governments respectively requires that the states run deficits of no more than two per cent of GDP, significantly lower than their present deficit targets. The Centre, on the other hand, can afford deficits of up to four per cent of GDP. It is no surprise, therefore, that sub-national debt is projected to rise even though states have largely adhered to their present fiscal deficit limits. The 15th Finance Commission, which is likely to be set up later this year, must amend fiscal rules to maintain consistency between the stock and flow variables.

The author is a Delhi-based economist

BUSINESS LIFE

'Try, then buy' is part of a shopping trend

Amazon as well as some other online shopping sites are offering the facility

CLAIRE COGHLAN

When I was a child, I would watch my grandmother try on dresses and coats she had brought home on "appro" (or approbation) from Mrs Downey's boutique in Dungarvan, Ireland: deciding, at her leisure, what to buy and what to return. Who knew that, decades later, "appro," aka "try on," would become the way to shop?

And not just at Amazon, which recently announced such a service for its Prime members, who are not charged while they mull up to 15 items for a week.

In December, Debora LaBudde started Memo, which lets online shoppers try fine jewellery by established and emerging designers for a three-day period. "The practice of allowing a client to take merchandise home prior to making a purchase has long been a tradition in the jewellery industry, but it's most often reserved for VIP clientele," LaBudde said. But she said she believed "every client should enjoy the same luxury experience". Prices range from \$350 to \$15,000, and insured return shipping is included with delivery.

Colleen McKinnie helped found Lyon & Post (tagline: "Say farewell to fitting rooms"), which sells casual clothing, including active wear and swimwear. "There's no checkout process," McKinnie said. Members add items to Netflix-style queues by clicking "Try It On". Within a day, the top four items are shipped. After a



Shopping portal subscribers are charged only for items they keep

week, members can return whatever they don't want in a prepaid return bag, at which point they are charged only for what they keep. "Our average retail price is \$140, with the overall range sitting between \$50 and \$500," said McKinnie, who plans to add accessories, shoes and handbags to the stock.

After filling out a style profile at Bungal Clothing, which Rob Wright founded in 2013, customers are paired with stylists. "From there, they interact via text, phone or email," said

Wright, whose partners include the musician John Legend. After previewing items in a "Dressing Room" and making any desired adjustments, shoppers get six to 15 items shipped to them for a five-day try-on period.

"Our core demographic is a 35- to 45-year-old mom, of which 80 per cent work," said Wright, adding that his average customer spends about \$400 in one go. "They've got money; they just don't have time."

For men who are short on time, there's Bombfell, a men's casual wear subscription service that began shipping to subscribers in 2011. "When I look at retail, before the internet, I see two buckets," said Bernie Yoo, a founder. "One was a self-service customer: They're confident, they know what looks good on and they can do it all on their own. The second is the full-service customer: They're the ones who would go to personal shoppers or actively seek out help from sales associates."

In an online age, Bombfell is targeted at the latter. "We're focused on using technology to make the personal styling process much more efficient so we can deliver it at scale," Yoo said. Private-label stock was added to the site last year. Clients choose how often they receive shipments and how many things they receive (the average price is \$85), and they have seven days to decide on which items to keep.

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LETTERS

In need of an overhaul

With reference to the editorial, "A rulerless Opposition" (July 6), the 2014 Lok Sabha elections brought the Congress to the nadir of its influence in national politics; the party has since been in bewilderment about how to recover, revive and reorganise its forces, ideas and energies.

The Congress indulged in several disruptive tactics in Parliament to inspire confidence among its dispirited cadres and resolve its existential crisis. It held key legislation hostage to obstructionist politics and tried to harvest political capital by playing victim at the hands of the ruling dispensation.

The formation of ragtag coalitions in states was a mere exercise in face-saving by the party. Most of these alliances failed to wriggle free from their antiquated vision of power and seldom had a road map for the development of constituencies bound for elections.

It is time the grand old party overhauled its organisation structurally by infusing fresh ideas and articulated a comprehensive plan for development. Instead of encouraging sycophancy and preference for loyalists within the party, the party should try to strengthen its leadership from the grassroots level and make it accessible to both leaders and workers. It should come up with clear agendas and a dynamic leadership, both at the Centre and in states, and reassert its social democratic values of welfare and pluralism effectively.

Shreyans Jain New Delhi

The ultimate goal

Neetu Vasanta and Suresh Subudhi's article, "Unlocking growth, integration in transport infrastructure" (July 6), succinctly elucidates the importance of transport infrastructure with respect to geopolitical and economic development.

Development encompasses asset-building activities to access urban areas and markets and expanding the asset



base to facilitate trade and enhance mobility to the contours of transport network optimisation.

The propositions made by the authors could be pointers for city planners and transport economists to firm up research on network integration — that is achievable using advanced technologies and big data analytics — central to attaining the objectives of inclusive and "life cycle-oriented" project prioritisation.

The potential of created assets, for example, freight station, container port and corridor road need to be gauged in the light of network objectives, economic and environmental impacts and delivery readiness. Multi-criteria asset analysis using an analytical hierarchy process is useful. Furthermore, issues of under-utilisation or congregation in transport modes can be overcome by integrated asset planning, coastal shipping being a case in point. The Golden Quadrilateral project can become an example of improved asset planning and an integrated

road transport multi-modal network.

Transport integration should be the ultimate goal of global integration and future growth.

Kushankur Dey Bhubaneswar

Let apex court prevail

The Supreme Court wants the government to allow the public to exchange banned ₹500 and ₹1,000 notes one more time. There are a significant number of citizens who could not or did not exchange the banned notes before December 30, 2016.

The apex court has criticised the government for not allowing the exchange of notes till March 31, 2017, as was declared by Prime Minister Narendra Modi in his address to the nation on November 8, 2016. People had taken for granted that the government and/or the Reserve Bank of India would allow the exchange of banned notes till March 31.

It is unbecoming of a government to eat its own words. May the Supreme Court prevail upon the government to allow the exchange of the scrapped notes and bring cheer to citizens.

Ramanath Nakhate Mumbai

Letters can be mailed, faxed or e-mailed to: The Editor, Business Standard, Nehru House, 4 Bahadur Shah Zafar Marg, New Delhi 110 002. Fax: (011) 23720201. E-mail: letters@bsmail.in. All letters must have a postal address and telephone number.



BY MIKE FLANAGAN

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A new chapter

India does well to strengthen ties with Israel

By all accounts, Prime Minister Narendra Modi's visit to Israel has been a success. The optics were filled with bonhomie and promises of everlasting friendship and did justice to the first-ever visit by an Indian prime minister to Israel. Benjamin Netanyahu, the Israeli prime minister, hugged Mr Modi, called him a "kindred spirit", greeted him in Hindi – "Aapka swagat hai, mere dost" (I welcome you, my friend) – claimed that a partnership between the two nations was a "marriage made in heaven", and said that the Israelis had been waiting for this moment for almost 70 years. Israeli President Reuven Rivlin broke protocol to receive Mr Modi, and the Israeli agriculture minister named a new strain of white chrysanthemum after the Indian prime minister. Mr Modi looked predictably chuffed and was equally generous in his praise for his hosts. "India admires the success of your people in overcoming adversity to... flourish against all odds," said Mr Modi. By the time the joint statement was framed, it was clear that these phrases were not mere pleasantries: The two leaders had decided to raise bilateral ties to a strategic partnership.

Giving shape to this partnership were seven pacts signed between the two governments. Chief among them was a \$40-million India-Israel Industrial R&D and Innovation Fund (I4F), equally funded by the two governments, which will enable enterprises from the two countries to undertake joint research and develop innovative technologies and products. Two other crucial memoranda of understanding (MoUs) were expected to leverage Israeli expertise for water conservation and water utility reforms in India. Other MoUs covered diverse concerns such as improvements in agriculture and space technology. Apart from these pacts, the two governments underscored the need for coming together on non-government platforms as well. The India-Israel Chief Executive Officers' Forum, which finalised about a dozen strategic MoUs among companies in the two countries, was also tasked with recommending measures for realising the potential of bilateral trade and investment. Similarly, the India-Israel Joint Committee on Science and Technology will explore the possibility of further collaboration, especially in cutting-edge fields such as big data analytics in health care. In defence, where Israel is already the third biggest supplier of arms to India after Russia and the US, the joint statement stressed the possible joint development of defence products in the future, "with a special emphasis on the Make in India initiative".

What was conspicuous by its absence in the joint statement, though, was the mention of the term "cross-border terrorism". However, Mr Modi laid stress on the similarities between India and Israel as "victims of violence and hatred spread by terror". There was a consensus in the statement that terror could not be justified on any grounds whatsoever. In sum, in terms of signalling, the bold articulation of mutual trust, admiration and future collaboration was as clear a break as possible from the past, when top Indian leaders saw ties with Israel in conjunction with India's relations with the Palestinian leadership as well as the Israeli and Palestinian peace process. The fact that Mr Modi did not stop at Ramallah, the headquarters of the Palestinian Authority, further underlined this de-hyphenation. West Asia is experiencing both political and social turbulence at present and yet India has vital human and material stakes in the region. Pursuing a pragmatic foreign policy is India's best course of action and this opening up of ties with Israel is a step in that direction.

No exceptions

Listed PSUs must match private firms in corporate governance

At a recent meeting with chief executives of public sector undertakings (PSUs), Securities and Exchange Board of India (Sebi) Chairman Ajay Tyagi made several pertinent points about corporate governance. Mr Tyagi's central message was that PSUs are not held to the same standards as firms in the private sector. His observation comes at a time when listed PSUs are fast approaching an August 21 deadline by when they are required to ensure public shareholding of at least 25 per cent. However, many PSUs have failed to sell off stakes as required and it will be impossible for them to adhere to that deadline. This is in spite of them being given a generous grace period of an extra three years because the originally fixed date – set by the Department of Investment and Public Asset Management, or DIPAM, under the Ministry of Finance – was August 22, 2014. The DIPAM schedule was in line with a Sebi directive of June 2013 stipulating that all privately promoted listed companies had to have a minimum 25 per cent public shareholding. Sebi had issued show-cause notices to some 100-odd privately promoted listed companies that had failed to adhere to the 2014 deadline. It followed this up with penalties for offenders by measures such as freezing of voting rights and restrictions on dividend payments.

The introduction of a minimum 25 per cent public shareholding norm is expected to improve corporate governance and enhance transparency. If that rationale is accepted, there is no reason why PSUs should continue to be allowed to operate as closely held entities with less transparent practices and lower governance standards. Sebi ensured that privately promoted companies diluted their promoter holdings and it would prefer to have PSUs complying with those norms as well. However, as Mr Tyagi pointed out, taking a decision to dilute ownership in a PSU depends on clearance from the government of the day before the company can initiate action on either a strategic stake sale or a public offer. Unfortunately, however, the government has dragged its feet on the issue and it is now likely to grant closely held PSUs an extension of the August deadline.

To be sure, there are other areas where PSUs are not held to the same standards of corporate governance as private enterprises. One is in the area of gender diversity and the overall composition of boards. Listed Indian companies are required to have at least one woman board member and privately promoted companies have complied with this norm by increasing the female representation on boards. Yet, at least 20 per cent of PSUs do not have a single woman director on their boards. He also said that there were no set rules for appointing independent directors for PSUs and often independent directors were appointed and removed arbitrarily. In addition, nominee directors are also often political appointments who are not necessarily experts in any area relevant for the companies in question.

It is heartening that the Sebi chairman has chosen to draw attention to this gap since PSUs are major players across the Indian corporate landscape and indeed have significant presence in several sectors such as mining and energy. Poor corporate governance implies that minority shareholders are short-changed. Hard deadlines should be set for compliance with these minimal standards of governance and the DIPAM should also be instructed to speed up disinvestment in closely held PSUs.

ILLUSTRATION BY BINAY SINHA



Who's conducting India's wars?

Conventional wisdom suggests political leaders must control army generals, but we seem to be doing the opposite

When he was assistant secretary of the navy, Franklin Roosevelt learned something important from his boss, the pacifist Josephus Daniels. "While the European nations allowed power to devolve on to the military when once (the First World War) began, leaving their politicians powerless either to overrule the generals or to make peace, Daniels taught FDR the greatest lesson of the twentieth century," writes Nigel Hamilton in his book *American Caesars* profiling modern presidents. The lesson was: "Politicians must retain control of the generals, and must use that power wisely."

French leader Georges Clémenceau said the same thing about war being too important a matter to be left to the military. Did they mean the actual fighting? Of course not. What they meant was the decisions that led to the fighting. Violence is a course of last resort as Carl von Clausewitz tells us. We should fight only when we are convinced we can finish the argument, because the risks and costs to us are high.

Who has the Indian government left war to? The question must be asked because a report says that firing exchanges with Pakistan have escalated since the surgical strike last year. *The Indian Express* reported there were 124 exchanges of fire along the Line of Control (LoC) and the international border in Jammu. This was up from five in the same period before the surgical strike, according to government data. This part of the border, in Jammu, was not being used for infiltration by Pakistan earlier, but the violence was

stemming from soldiers on both sides creeping across and murdering each other in vengeance for acts of beheading and other bestiality. So who is in charge on our side?

Business Standard reported on May 6, that the defence minister has left it to the generals. The headline was: "Indian Army competent to take action on mutilation issue: Jaitley". The minister was quoted as saying that "like every Indian I have full confidence in the Indian Army. It will take appropriate action. Beyond that we must learn to trust our Indian Army." More worryingly he added, "what they decide we leave it to them. These are not issues that can be determined in the public domain, Army decides."

This level of casualness comes out of many things. First that violence with Pakistan has become normalised. We are fine with a few of our soldiers dying in meaningless confrontation every year, so long as a few of theirs are also killed. The second reason this is left to the soldiers is that wider society has no stake in these sacrifices, particularly the Anglicised upper class. This is because our sons are not enlisted as jawans and it is left to other people to die, and to kill. Recruitment has been done in the same manner on the subcontinent for hundreds of years. Gujarat, for example, with five per cent of the population supplies only one per cent of our soldiers. In Pakistan, it is mainly the Jats of the Pothohar plateau have supplied the army, whether British or Pakistani.

How many people do you know who have enlist-



REPLY TO ALL

AAKAR PATEL

Cooking an edible Hamburger

The G20 summit opens Friday to a melancholic backdrop. Discontent about stagnant incomes and anxieties over the economic future will bring leaders from outside the traditional political establishment to Hamburg, who do not automatically support an international order based on market principles and open economies. Brazil will not even send its leader; India and China face serious military tension. Russia is viewed suspiciously as interfering in political outcomes in advanced economies. Turkey, South Africa, Saudi Arabia, Australia and South Korea are beleaguered by domestic and regional challenges. The US has rejected the Paris Climate Accord. The UK is caught in a Brexit-ignited swirl of disorder and discontent.

The German presidency has proposed an agenda to address "the fears and challenges associated with globalisation." But the agenda reflects no new thinking that could inspire and lead the global economic community. The usual lip service has been paid to limiting global warming, reducing tax competition, and combating international terrorism by closing channels of financing. While workaday progress has indeed been made on some fronts, there is nothing inspirational or novel in the agenda. The International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD) and the World Bank continue to be tasked with producing pilot reports on policies to promote strong and sustainable growth. Eminent persons' groups and study groups on different issues continue to be framed without delivering anything the beleaguered leaders could take to their constituents to address their fears.

At a time when global uncertainties, political fears, and suspicions of the intentions of other countries abound, this is unacceptable. We need fresh thinking and we need it now. My suggestions:

Focus the finance track on the big global issues:

Escalating the G20 to the leaders' level was supposed to signal that it would focus on the architecture of global finance and macroeconomics. But the finance track seems to have reverted to just talking about the plumbing. As Samir Saran and Sunjoy Joshi point out, micro issues do need to be on the table but the temptation to address them as part of the G20 agenda only dilutes the ability of the G20's founding purpose¹. Specifically, the finance track needs to address how the financial system would provide significant long term finance for infrastructure investments in developing countries which is, today, the only way to spur global growth. It is doing everything but this. If no concrete results are delivered on this front, this annual global summitry is pointless.

Financing for the sustainable development goals (SDGs) is essentially about long-term investment, and it is therefore critical that the G20 finance track takes the lead in ensuring that the means of implementation of the SDGs are fit for purpose. Delegating this question to the dysfunctional development track or to study groups will not do the job. The UN needs to play its part in this endeavour by putting sustainable finance at the heart of work on the SDGs, but the G20 is the forum where the largest economies can articulate a credible solution to the challenge, especially given the failure of the Addis Ababa meeting on the subject to deliver anything of relevance.

End mission creep: The G20 is prone to an extreme version of mission creep. Individual presidencies cherry-pick topics of focus. Much rhetoric is produced and then forgotten by the next presidency. This year, the G20 presidency has chosen to focus on Africa. But there are serious concerns about whether this will compete with Africa's own initiatives and blur the case for maintaining commitments on official



PUBLIC INTEREST

RATHIN ROY

ed in the army? I don't know many. Our Parliament will also reflect this reality. In the United States, 20 sitting senators and 89 representatives (their Lok Sabha) were veterans. This was 20 per cent of the total. And the survey, by Pew in 2013, was headlined "Most members of Congress have little direct military experience", meaning that even 20 per cent was a historic low. The high point in recent decades was hit in 1977, when 77 per cent of serving senators and representatives had served in the armed forces.

It would be instructive to see what the number is in India among elected leaders and the media. I mention the latter because the lunatic ranting of our anchors, goading the nation nightly to war, is accompanied with zero experience of actual battle or soldiery. I personally prefer to get my analysis from actual warriors, like this paper's Ajai Shukla, rather than the studio samurai. This seems perfectly reasonable. But this being India things must get bizarre and they have. Our last defence minister did not leave war to the generals but to anchors, insults and emotion.

Manohar Parrikar this month provided information on the surgical strikes (we still have zero information on what happened and how many were killed, but it was a great victory) across the LoC last year. Speaking to industrialists, who were no doubt interested in this, Mr Parrikar described the sequence. The wire service PTI ran the report of this and issued a correction because what the report revealed was outrageous. What follows is from the corrected version, which remains outrageous. Mr Parrikar said that a strike across the international border in Myanmar happened because of emotion. In his words: "I felt insulted... A small terrorist organisation of 200 people killing 18 Dogra soldiers was an insult to the Indian Army and we sat in the afternoon and sat in the evening and worked out the (plan of) the first surgical strike which was conducted on 8th June morning in which about 70-80 terrorists were killed (along the India-Myanmar border)."

How did the attack in PoK happen? While Mr Parrikar was watching a TV debate on the Myanmar attack, "... one question hurt me. (Information minister) Rajyavardhan Singh Rathore, an ex-army man, was on TV and he was explaining about all kinds of search operations. An anchor asked him 'Would you have the courage and capability of doing the same on the western front?' I listened very intensely but decided to answer when the time came."

We are putting the lives of Indians at stake through this sort of thinking, in which violence answers hurt and insult. That these words have not terrified more people, or become a story of any consequence says something about our country.

Many of us have felt that often what the Hindutva leaders say, especially their more loopy pronouncements, is for public consumption. What actually happens in government is serious work done by serious and reasonable people. What has been revealed on military violence by this government undermines that optimism substantially. We seem to have reversed the dictum of retaining control over generals, and entirely abandoned thoughts of using that power wisely.

development assistance to poor African countries. The G20 should commit to a medium-term agenda that does not overlap with those being pursued at the country, bilateral or multilateral levels and where coordinated action by G20 members can make a positive difference to the global economy.

Own the analysis: G20 analytical work is all outsourced, mostly to the World Bank, the IMF, and the OECD. These institutions are limited by their own agendas, and their existing ideational framework. It is inconceivable that the twenty biggest economies in the world cannot do their own research by forming consortia to deliver the required original thinking. The T20 already presents a place where such work can be nested. I engaged with this year's T20 and was gratified to see that collaborative research between G20 institutions did produce solutions that held promise for breaking political deadlocks and current technical cul-de-sacs. I had a similar experience with the Australian presidency. However, the T20 suffers from the same defect as the G20, namely lack of a medium term research agenda, and the overbearing weight of the priorities of the chair. If the multilateral agencies can be tasked with medium term work programs, then so can T20 consortia. This will bring intellectual continuity and focus, and also greater G20 ownership of the ideational agenda.

A final, India-specific, word. Brazil's absence, and the disruptive domestic agendas and tensions that many leaders will bring to Hamburg, should signal to us that the traditional G20 division between emerging and advanced economies is not one to which India should confine its engagement. There is merit and opportunity in exploring other collaborations on issues of common interest which would benefit India. Our delegation would do well to remember the guiding principle of economic negotiation: Benefits come from shared interests, not common positions.

1. "Global Perspectives: G20 Leaders Summit", www.cfr.org. The writer is director, National Institute of Public Finance and Policy

The race for the Final Frontier



BOOK REVIEW

DEVANGHSU DATTA

The space race began as World War II ended. The Allies had no defence against Germany's V2 rockets. So, the victors divided up the rocket scientists of the Third Reich, parked them on opposite sides of Iron Curtain in teams that made bigger, better rockets.

Nuclear weapons, rockets, space race; these were all Cold War leitmotifs. Apart from demonstrating muscle, major bragging rights were associated with putting satellites and human beings into space (Sputnik, Yuri Gagarin, John Glenn) and on the moon (Apollo 11), and then developing the

space stations and space shuttles.

But space exploration was always seen as "blue sky research" and the domain of governments. It was only after the Cold War ended that private citizens began to wonder if there was any way to get into space. This is the story of the "renegades" who broke the monopoly of the government space agencies to privately fund, design and build space-going vehicles.

Julian Guthrie tells it well, albeit from the perspective of one man. Peter Diamandis is the *eminence grise* of private spaceflight. The author obviously enjoyed deep, intimate access to him. Mr Diamandis is a multi-tasker of frighteningly high competence. He was eight when Apollo 11 landed on the moon in 1969. Like a lot of kids in that generation, he was bitten by the space bug. He studied physics and molecular biology at MIT and then did a medical degree from Harvard. Those are

demanding disciplines but while still a student, he established the "International Space University", now a specialised research institute based in Strasbourg, France. He also founded a rocket-design company, International MicroSpace and ran the university and the company.

In 1994, Mr Diamandis had the bright idea of setting up a prize, which would offer an incentive for aerospace specialists to build a reusable space vehicle. The idea wasn't original. He was inspired by the Charles Lindbergh story. The Orteig Prize offered \$25,000 for a non-stop solo Atlantic crossing. Lindbergh's solo flight from New York to Paris in 1927 was made in a custom-built plane, *The Spirit of St Louis*, and funded by backers who hoped to win the \$25,000.

The XPRIZE was announced in 1996. It offered \$10 million to the first non-government-funded, privately

designed, reusable spacecraft. The vehicle had to be launched twice and fly both times to a height of at least 100 km. Mr Diamandis had no money and he scrambled in desperate bids to find the cash. Jeff Bezos refused to fund it; Paul Allen refused to fund it (though Mr Allen funded the successful attempt to win it); Richard Branson refused (he wrote the foreword to this book in expiation and also helped fund the winning team).

Finding cash took a lot of hustling and is a story in itself. Mr Diamandis pulled in Lindbergh's grandson, Erik, to do a repeat solo-flight of the Atlantic to publicise the prize. He set up a peculiar contract with an insurance company, which bet that the prize would not be won! The Ansari Foundation eventually came up with the bulk of the cash which is why it's now referred to as the Ansari XPRIZE. (Anousheh Ansari was the first female tourist in space).

The other "renegades" include the prize-winners. Burt Rutan was already a legend in aerospace design. He had

designed the record-breaking *Voyager*, which circled the world twice non-stop, in a 200-hour flight in 1986. *Voyager* was piloted by Dick Rutan (Burt's brother) and Jeana Yeager. Mr Rutan designed the winning *SpaceShipOne* (Mr Allen split the prize money 50-50 with Mr Rutan, who gave generous bonuses to his entire team).

The trials and tribulations of Mr Rutan's team and the real physical dangers the pilots faced comprises some of the most exciting sections of the book. Mike Melvill piloted the first XPRIZE launch and Brian Binnie piloted the second. Mr Binnie's mother-in-law spilled coffee on his flight suit and he spent the flight suffused in the smell of coffee.

SpaceShipOne flew in 2003. Subsequently Mr Branson with Virgin Galactic, Elon Musk with SpaceX and Mr Bezos with Blue Origin have all got into the act. Mr Rutan's latest design – his 47th – can land on snow, ice, water, land, or a ship's deck. Six Rutan planes (including *SpaceShipOne*) are in the Smithsonian.

The XPRIZE Foundation, which Mr

Diamandis still fronts, has gotten more ambitious; the \$30-million Google XPRIZE will go to the first privately owned venture (if any) to land a robot on the moon, travel 500 meters and beam video back before a deadline of December 31, 2017. India's TeamIndus is in the running for that feat.

The book is well-written with a wealth of detail. My inner geek wishes that she had focussed a little more on the technology and the flying. The inner nerd would love to know more about the financial engineering. But Mr Diamandis is a genuinely fascinating individual and it's a racy read. The afterword is written by Stephen Hawking who says "My wheels are here on Earth but I will keep dreaming. Space! Here I come!"

HOW TO MAKE A SPACESHIP A Band of Renegades, An Epic Race, And The Birth of Private Spaceflight

Julian Guthrie
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