Psychological gym

Great companies know how to counter the brain's negative bias

HUMAN FACTOR

SHYAMAL MAJUMDAR

You just had a conversation with your boss regarding your performance review. The appraisal was quite positive overall and noted your strong performance and achievements. But a few constructive comments pointed out areas where you could improve, and you find yourself fixating on those remarks. Rather than feeling good about the positive aspects of your review, you feel upset and angry about the few critical comments.

Or, think about the many compliments you have received from colleagues. You probably felt flattered at the moment, but then went on with your day. Compare that to even a single snide remark. It probably affected you more deeply, and the negative feeling continued for days – if not years.

To figure out why the deflation you feel from rejection overwhelms the elation you feel from recognition, Daniel Kahneman, an economist who won the 2002 Nobel prize, designed studies in which participants were asked to imagine either losing $50 or gaining $50. Even though the amount is the same, the magnitude of the emotional response is significantly larger for those imagining what it would be like to lose the money. In other words, the negativity of losing something is far greater than the goodness of gaining something.

Research papers have shown the negative is of seemingly greater importance to us and consumes our attention disproportionality compared to the positive. The source apparently is a brain region called the amygdala. Neuropsychologist Rick Hanson has shown how the amygdala uses about two-thirds of its neurons to detect negativity and then quickly stores it into long-term memory. This means two-thirds of your emotions and motivation regulator is designed to focus primarily on the negative. It's no surprise therefore that a Harvard University study of people's diaries (the best way to know how we experience everyday life) showed that the negative effect of a setback has twice the impact of a positive effect.

Great companies know this, which explains why they invest so much time and money on making the workplace happier. For, employees who are engaged with their workplaces will deliver the best. Many say only positive thinking will help counter the negative bias in our brain. That is, if you can bring an appreciation for what you already have, you'll be well on your way to a lifetime of blissful happiness. That's saying the obvious, but is fuzzy management-speak that is extremely difficult to put into action. For example, experts say try to focus on your breath for five minutes — something very few would be able to do without their mind wandering into other thoughts.

So more than preaching "positive thoughts", great companies practise positive action. It's kind of a psychological gymnasium which teaches you how to acquire the skill to cultivate happiness by doing, for example, the psychological equivalent of 50 sit-ups or half an hour of jogging. The HR managers of these companies also know that occasional big positive experiences don't make the necessary impact on our brain to override the tilt to negativity. It takes frequent small positive experiences to tip the scales toward happiness.

Great companies therefore take the time to celebrate even the small wins as they know recognition of modest achievements mark the small milestones that place emotional deposits into employees' psychological bank account that they can withdraw from when they are confronted with loss and disappointment. Leaders should know that only pointing out weaknesses or shortcomings is a zero-sum game. Each time they acknowledge the strengths and talents in those around them, they not only elevate them; they elevate themselves.

They also ask empowering questions while brainstorming with their teams. Questions such as "How can we build on this idea?" is infinitely better than "What are the problems in implanting this idea?". The best form of countering the negative bias is of course constant communication. While texting some kind of appreciative message or an email is fine, there is no alternative to just picking up the phone or getting off the chair and go and talk to your colleagues directly. Eleanor Roosevelt famously said: "No one can make you feel inferior without your consent." Companies that care for their employees teach them not to consent to making themselves feel inferior. No negative bias in the brain can beat that.

Infra sector urgently requires a DFI

A Developmental Financial Institution is imperative if India is to achive the ₹100 trillion investment target in infrastructure

INFRA TALK

VINAYAK CHATTERJEE

The Prime Minister's clarion call for a ₹100 trillion target for infrastructure investments from 2019 to 2024 has not come a day too soon. India clearly needs this level of investment; and this figure is consistent when also seen through the GCFI lens (gross capital formation in infrastructure as a percentage of GDP). But given the current situation in the infrastructure sector, coupled with the diminishing headroom for more public expenditure, achieving this target will be daunting without an impactful and dedicated DFI.

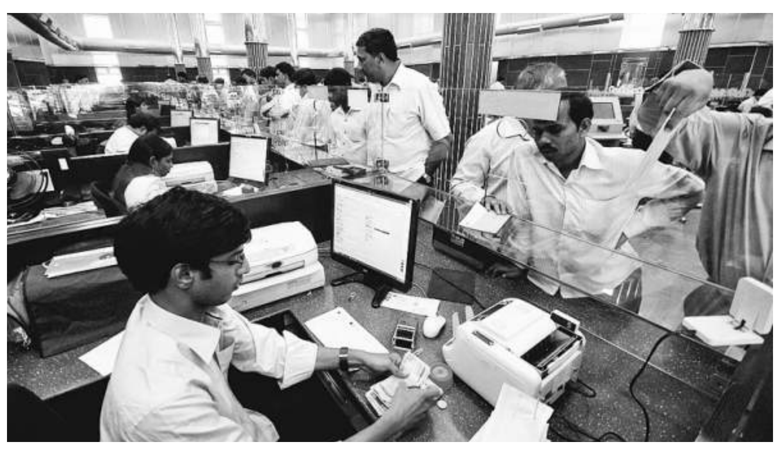
In an INFRATALK article in *Business Standard* in June 2017, I had argued for reshaping the India Infrastructure Finance Company Ltd to enable it to play a more effective role. Since then, the need for a larger and much more impactful DFI has only increased.

The year 2019 will be seen as a landmark year for public sector banking reform with the government merging public sector banks in a big way. But there is another possible reform in infrastructure financing, which if it succeeds, has the potential to usher in long-overdue changes to the way this sector is financed in this country.

That is being proposed is a merger of India's existing infrastructure financial institutions — the Indian Infrastructure Finance Company, the Housing and Urban Development Corporation, the Power Finance Corporation (now enlarged with the acquisition of Rural Electrification Corporation), and the Indian Railway Finance Corporation — to shape a new apex financial institution that should emerge as the "mother" infrastructure financing entity for India. It should be created by an Act of Parliament and insulated from being regulated by multiple agencies.

Such an institution is sorely needed and the entity should strive for a balance-sheet size of ₹20 trillion in a three-stage process with ₹2 trillion of equity capital and debt leveraging of nine times. It should be mandated to garner cheap international long-term capital by smartly monetising the international goodwill of the current government. Such an ability has already been demonstrated with the government of Japan agreeing to give a soft loan for the Bullet Train project for about ₹90,000 crores at a lip-smacking interest rate of 0.1 per cent over 50 years — with the repayment of the loan to begin after 15 years from receipt.

Public sector banks, still attempting to recover from non-performing assets in the sector, are in no position to pick up the slack. In any case, the asset-liability mismatch mistake should not be repeated again. And while foreign infrastructure funds have clearly evinced interest in the sector in recent years, they are largely targeting lower-risk brownfield operating assets. And now, with the fiscal deficit set to touch 4 per cent, direct government financing cannot be relied on to the extent required.



A merger of India's existing infrastructure financial institutions to shape a new apex financial institution is the need of the hour

DFIs have made a remarkable contribution to Indian project finance, and to creating a class of entrepreneurs in the decades following independence. A set of institutions were set up specifically for the task of funding projects in industry, which commercial banks at the time could not. These DFIs of yore — the Industrial Development Bank of India, Industrial Finance Corporation of India and Industrial Credit & Investment Corporation of India — were set up in an era when there was hardly any private sector capital available for indigenous industry, and yet there was an urgent need to develop Indian entrepreneurship and industrial self-sufficiency. Over time, however, they came to be seen as relics of a pre-reform era. The golden age of such DFIs, both in India and across the world, was between the 1950s and the 1970s. By the 1980s, however, many had begun to be privatised, shut down or morphed into conventional commercial banks (for instance, ICICI, IDBI). A new set, namely, Infrastructure Leasing & Financial Services (IL&FS) and Infrastructure Development Finance Company (IDFC) did not quite see their mandate to be sectoral DFIs, and anyway ultimately went their own ways. The newly-minted National Investment and Infrastructure Fund (NIIF) sees itself as a "platform-driven" equity investor.

Yet these so-called national development banks (NDBs), as opposed to "multilateral development banks" such as the World Bank and Asian Development Bank (which have always played a prominent role in infra finance), never really went away. In fact, as Rogerio Studart and Kevin P Gallagher of Boston University pointed out in a study in 2016, NDBs have seen a renewal of interest, in part because they were seen to have played an important role in the economic success of countries such as Korea and China. Many new industrialised countries saw NDBs as a better bet than multilateral institutions when it came to financing infrastructure and industry because they had a greater voice and say over how the funds of such institutions could be deployed. The study points out that there are 250 NDBs across the world holding at least $5 trillion in assets, far dwarfing the much higher-profile multilateral financing institutions in scale and scope.

The case of the Brazilian Development Bank (BNDES) exemplifies the role that NDBs play. While it too was set up in the 1950s, it has continued to play its DFI role unlike its Indian counterparts. This is because Brazil's financial markets have historically been underdeveloped with interest rates remaining high and commercial banks focused on short- to medium-term lending. Long-term loans remain the domain of the BNDES. In the credit crunch following the financial crisis in 2008, the Brazilian government actively encouraged BNDES to continue lending as other commercial banks cut back.

It is time again for a 21st Century DFI for India — this time to fund infrastructure.

The author is chairman of Feedback Infra

CHINESE WHISPERS

Nirupam is fed up

Trouble for the Congress in Maharashtra does not seem to end. Even as it is plagued with several leaders quitting the party in the run-up to the Assembly polls, the party's former Mumbai unit chief Sanjay Nirupam on Thursday vented his frustration with the Congress bosses on Twitter. "It seems Congress party doesn't want my services anymore. I had recommended just one name in Mumbai for (the) Assembly election. Heard that even that has been rejected. As I had told the leadership earlier, in that case I will not participate in (the) poll campaign. It's my final decision," he tweeted. Nirupam has served two terms as Rajya Sabha member — first representing the Shiv Sena and the second representing the Congress; he was also the Congress Lok Sabha member from the Mumbai North constituency.

Keeping all options open

Over the past one week, Congress spokespersons have held press conferences to highlight the flood situation in Bihar, but have stopped short of attacking Chief Minister Nitish Kumar (*pictured*). Even when Congress Rajya Sabha MP Abhishek Manu Singhvi and the person in charge of Bihar affairs, Shaktisinh Gohil, spoke on floods in Patna recently, they criticised the state government's lack of preparedness but remained noncommittal about making it an election plank for the Assembly bypolls in the state next year. Gohil said, "For us this issue is one of humanity, not politics ... We have so many other issues to raise during the bypolls." Singhvi sidestepped a personal attack even when asked a pointed question on whether the episode tarnished Kumar's image of being a good administrator (*sushasan babu*). Sources in the Congress, the Janata Dal (United), and the Rashtriya Janata Dal say efforts are on to keep the option of a rapprochement among these parties open.

Musical exchange

Congress legislator Aditi Singh hogged the limelight on the birth anniversary of Mahatma Gandhi on Wednesday by attending the special session of the Uttar Pradesh Assembly even as her party boycotted it. The unsung dissenter that day, however, was Bahujan Samaj Party legislator Mohammad Aslam Raini. Defying his party's stand, Raini attended the 36-hour session, which concluded on Thursday. Addressing the House on Thursday, he said he had listened to his "inner voice" and decided to join the Assembly. Raini thanked Chief Minister Adityanath for the government's initiatives, adding, "if I thank too much, everyone will say I have joined the BJP". When Assembly Speaker Hriday Narain Dixit joked, "don't be afraid... *jab pyar kiya to dama kya*" (why be afraid when in love) — echoing a line from a song from *Mughal-e-Azam* — Raini replied "*teri mehfil me kismat aazma kar hum bhi dekhenge*", quoting another song from the same film. Loosely translated, it means, "I will try my luck in your court."

INSIGHT

Pragmatic tax collection can cut fiscal deficit

Time has come to monitor empirically the buoyancy and elasticity of the tax system

ABHISHEK A RASTOGI

Volatile tax collection has been a cause of great concern for the government after the implementation of the goods and services tax (GST). The September 2019 collection has hit a dismal low. Apart from an economic slowdown, there are multiple other factors behind low revenue collection. Tax conformance and financial discipline among businesses have a major role to play in revenue yield.

The government has taken a slew of corrective measures to improve GST collection. Most of the teething GST issues have been resolved. The GST Council has been persistently making commendable efforts to resolve new issues, simplify the compliance process and ease businesses into the new tax regime. It is time for businesses to focus on streamlining tax compliance and address GST issues pragmatically. While the revenue intelligence and the anti-evasion wings of the government have been actively taking actions against non-compliance or evasion, the government could consider restructuring tax investigating authorities in specific industry groups/segments so that they can understand the industry better and take informed decisions after appreciating the unique hardships faced by an industry. Large businesses are expected to co-operate with these investigations and comply with justified demands/suggestions from tax authorities. The government should also closely monitor whether large businesses are passing on the commensurate benefit of reduced GST rates and increased input tax credits through the anti-profiteering mechanism. The industry must also take timely advantage of various tax amnesty schemes extended by state and central governments.

Tax certainty plays a key role in improving the ease of doing business and attracting more investments. The advance ruling authorities constituted under the GST laws play a crucial role in providing valuable guidance to corporations in structuring their business from a tax planning perspective. However, a slew of rulings from the advance ruling authorities across the country reflect a high pro-government bias resulting in mostly unfavourable decisions for businesses. Accordingly, businesses are gradually losing hope of a fair assessment from these Authorities. Under such circumstances, true "tax certainty" in business is hard to come by. The government must consider putting in place a judicial scrutiny of decisions given by advance ruling authorities. Such judicial scrutiny should be done by non-revenue officers.

The repercussions of a global slowdown cannot be entirely avoided despite India growing comparatively fast. The GST Council must be commended for taking pragmatic actions that can give an impetus to domestic consumption. Tax rates on various FMCG products and consumer goods are also seeing a steady decline. The last few GST Council meetings, have resulted in significant tax sops for the real estate and the hospitality sectors. The auto industry is also expected to receive some respite from the government, considering the sectoral slowdown. The government expects the rich to shell out taxes at a higher rate on the purchase of luxury vehicles as a person buying a luxury car can reasonably afford the highest rate of tax. It is now time for the government to seriously think about rate rationalisation vis-à-vis fiscal deficits. The 2.67 per cent decline in revenue collection may not be directly proportional to the slowdown as there could be various other factors such as low compliance. For instance, the actual amount of the refunds sanctioned will have to be seen to determine the reduction of the GST collections. It is time the government starts assessing performance of a commissionerate under the "tax throughput" concept which recognises the efforts of officers not only by tax collections but also by refunds sanctioned.

The level of compliances will have to be checked and compared with last year before arriving at any conclusion. Due to the upcoming festive season, there could be improved tax buoyancy in the coming months.

A better way to look at the revenue collection is to see the aggregate of both the direct taxes and indirect taxes and the refunds granted towards both these taxes. The intention of the government is to bring back the economic growth trajectory and this could be achieved not just by rate cuts but by pragmatic rate rationalisation and improved compliances. Pragmatic rate rationalisation will help in the fiscal discipline in the upcoming critical months when the economy will need a push. Time has come to monitor empirically the buoyancy and elasticity of the tax system.

Rastogi is partner & Saha is senior associate, Khaitan & Co. Views are personal

LETTERS

A laudable effort

The points brought out in the editorial "A laudable achievement" (October 3) are relevant and noteworthy for further deliberation and assessment. A look into the implementation of many schemes including Swachh Bharat shows the present government did bring a great deal of visibility to the scheme that finally helped sensitising people about the issue. Considering the Indian scenario, such visibility and sensitisation were the need of the hour to make the scheme work. It has surely done justice to the efforts even if we have to factor in the claim that published statistics might be only partially true.

Another issue that needed to be lauded here is the government's efforts to ensure sustainability of the mission. Reviving a scheme of an earlier government (Nirmal Bharat Abhiyan) demonstrates the present government's commitment to sustainability. It's initiatives and focus while setting measurable targets like making India ODF (open-defecation free) by October 2, 2019, would go a long way in helping our country reach SDG 6 (Sustainable Development Goals 6) set by the United Nations. The slogan for the scheme "one step towards cleanliness" gives us confidence that the government will now set more measurable targets for other aspects of cleanliness in the second phase of the mission.

Let's all remain connected to the cause and work towards making our country a truly "Swachh Bharat" in the coming days.

M L Kabir Kolkata

Work in progress

Prime Minister Narendra Modi's declaration that India is open-defecation free appears to be a tall claim. There is some truth in the adage "old habits die hard", and despite thousands of washrooms being built in rural India, many villagers prefer to do their business in the open. The impressive numbers that the government has put up — building 100 million toilets in the past five years — have come in for praise from the international community including the Bill and Melinda Gates Foundation, but clearly, it is still a work in progress. Enlightening the rural populace about the importance of hygiene and cleanliness is imperative to open their eyes to the perils of open defecation. The government may also consider introducing bio-toilets on long-distance trains.

N J Ravi Chander Bengaluru

Take a holistic view

This refers to "The way forward for public sector banks" (October 2). Repeated capital infusion by the government isn't really serving the intended purpose because of the requirement for enhanced provisions on loan losses. Being an owner, the government should ensure strict supervision of the functioning of public sector banks (PSBs) to keep them efficient and credible. The big-ticket loan-related frauds, the divergence in recognising stressed assets, the slow progress of resolution and recovery of bad loans and the likelihood of large loans to stressed sectors turning non-performing are still major impediments in the way of improving the efficiency of PSBs.

The role of the owner is to make the heads and boards of these entities remain effective and deliver returns that match the capital employed. The functionaries in the higher levels in PSBs are often influenced by political considerations that finally contribute to the bad assets. It is imperative for the government to keep itself away from decisions of bank functionaries. Notwithstanding the mergers in the pipeline, the market is not convinced about the capability of the PSBs becoming efficient and deliver expected returns. As a consequence, the price of the equities of these banks is getting bottomed out causing a heavy drain on market capitalisation.

The government must take a holistic view of the present catastrophe and initiate corrective actions to save PSBs, besides giving extensive regulatory powers to the banking regulator.

VSK Pillai Kottayam

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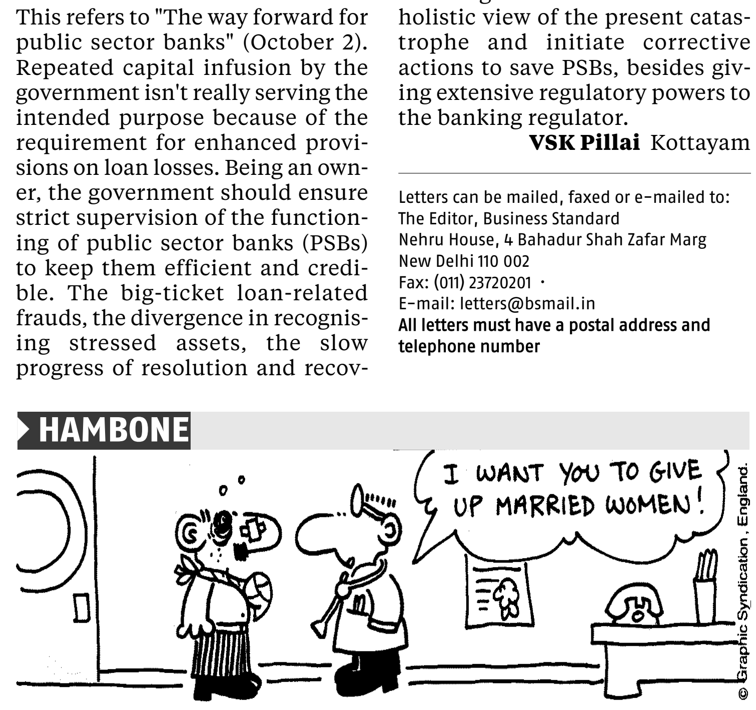
HAMBONE



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Clearing the air

Rules curbing airline stakes in airports should be reviewed

Plain logic suggests that placing a limit on an airline's shareholding in an airport is valid from the point of view of competition law. But the 2006 agreement between the Airports Authority of India (AAI) and GMR Airports Ltd (GAL), capping an airline's shareholding to 10 per cent in Delhi International Airport Ltd (DIAL), appears excessively restrictive, especially when it constrains the airport operator's ability to attract funds for expanding and modernising the country's busiest airport.

This question has arisen over a ₹8,000-crore investment by a consortium led by the Tata group in GAL, which demerged from GMR Infrastructure earlier this year. The principal problem is that the Tata group has majority stakes in two domestic airlines — Vistara and Air Asia India. If the deal between the Tata group and GAL goes through, the former will have a 20 per cent stake in GAL, and, by extension, a 12.8 per cent stake in DIAL, which conflicts with the 2006 agreement. The Competition Commission of India has approved the deal but the AAI has sought the solicitor general's opinion. This referral may be a case of abundant caution on the state-owned airport operator's part. Both GAL and the Tata group have given assurances that they will not breach conflict-of-interest issues. But these pledges should not be considered a sufficient condition to pass the deal; a review of the rule as a matter of principle would be a better idea for India's rapidly expanding airports business.

The argument for minimising airline stakes in airports, especially major ones, is to avoid a conflict of interest with other user-airlines. It is possible, for instance, for an airline-owned airport to accord unfavourable slots in terms of timing and placement to competing airlines. But there are several reasons why this contingency is unlikely to arise. Consider, first, the conflict-of-interest logic. In the AAI and DIAL's case, it operates in the reverse. The AAI owns 26 per cent in DIAL and is, in turn, wholly owned by the Union government, which is also the 100 per cent owner of Air India, the country's third-largest airline. In effect, then, it could be argued that Air India owns 26 per cent in DIAL, so the AAI should reduce its stake in the joint-venture airport operator forthwith.

Second, there is an institutional check and balance embedded in DIAL's slot-allocation function. As the Competition Commission has observed, in congested airports, slots are allocated by a coordination committee, which has representatives from the government and all airlines, minimising the scope to distort the process.

Third, though the Tata group will have a seat on the DIAL board, its shareholding is significantly below the legal threshold for blocking a board resolution on any competing issue. Finally, the presence of the Airports Economic Regulatory Authority should be enough of a deterrent to such irregularities. The fact that its power and jurisdiction have already been curtailed only underlines the urgency for strengthening its functioning. Anyone flying through Delhi airport will attest to the chronic congestion, which leads to long queues ahead of take-off and the incessant circling before landing. The deal with the Tata consortium would bring in much-needed funds to augment the airport's runway and other tarmac infrastructure. An outmoded 13-year rule should not be a deterrent to having a better, safer airport.

An unusual monsoon

The incidence of heavy downpours is steadily spiking

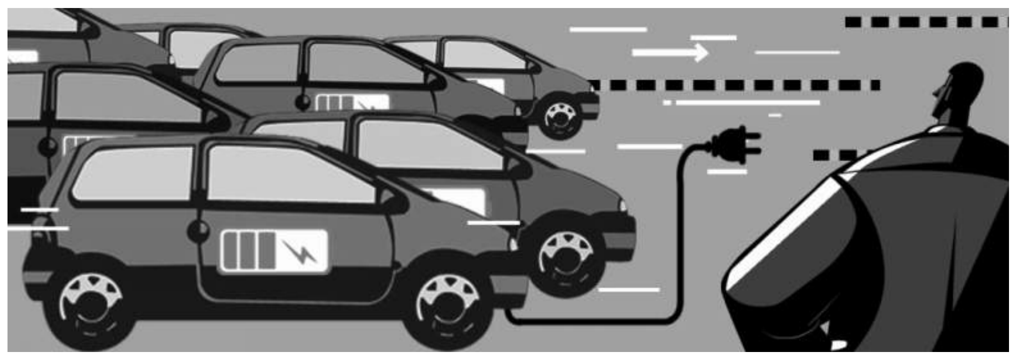
This year's monsoon will go down in history for its several unusual features. For one, though the four-month monsoon season officially ended on September 30, the withdrawal of the monsoon is nowhere in sight. The India Meteorological Department (IMD) does not foresee the retreat to begin before October 10, many days after the previous most belated departure on October 1 in 1961. This would, thus, be the longest stay of the monsoon on record. Besides, rain this year is the highest in 25 years, with 10 per cent excess received till the end of September. Also, this is the first time since 1931 that the monsoon has rebounded after a poor start in such a manner as to wipe out the 33 per cent deficit in June and move ahead to end up in the above-normal category. This is largely due to the unusually heavy showers in the second half (August-September) of the season. Precipitation in September alone was 52 per cent above average, making it the wettest September in 102 years.

This apart, the rainfall pattern has corroborated the notion that the determinants of normalcy about the monsoon's onset and withdrawal, rainfall during the initial part of the season, and the frequency of extreme weather events are changing and need to be revised. The present "normal levels" were fixed in 1941 and are no longer valid, thanks, perhaps, to climate change. The monsoon now tends to turn up and depart later than their scheduled dates. Also, the monsoon now remains rather sluggish in the early part of the season. In seven of the past 11 years, rain in the first monsoon month of June has been below par. The incidence of very heavy downpours is also steadily spiking. Moreover, north-eastern India seems no longer to be a high-rainfall zone. After two decades (during the 1990s and 2000s) of good monsoons, the region has once again witnessed low rain. These variations in climate have major implications for agriculture, necessitating adjustments in the crop calendar and agronomic operations. Other water management practices, too, need to change.

The remarkable run of the monsoon is attributable largely to weakening of its nemesis El Nino (warming of the Pacific Ocean) and the simultaneous favourable turn in the Indian Ocean Dipole (temperature oscillations in the Indian Ocean) in July. Interestingly, the IMD managed to foresee the likely disposition of El Nino more accurately than most other global and domestic weather watchers, which felt it would continue to depress the monsoon. The IMD, therefore, managed to accurately capture the trend of rain though its estimates about the amount of precipitation proved to be off the mark.

Importantly, the oddities of the present monsoon are not expected to affect the economy negatively. Crop output is anticipated to be normal in the current kharif season and better than that in the ensuing rabi, thanks to adequate residual soil moisture due to the late rains. The water stock in the country's 113 reservoirs is 15 per cent more than that of last year and 21 per cent above the past 10 years' average. Most dams had to open the floodgates to release surplus water. This bodes well for irrigation, hydel power production, and other water-based industrial activities. All this should help support economic activity.

ILLUSTRATION: AJAY MOHANTY



Electric cars and the coming revolution

Just as it happened in the digital arena, electric and driverless cars are going to be disruptive for companies that resist change

AAKAR PATEL

The world's 10 largest companies by revenue include six that produce fossil fuel — Royal Dutch Shell, British Petroleum, Sinopec, China National Petroleum, Saudi Aramco and ExxonMobil. Another two are companies that use fossil fuel (Volkswagen and Toyota). Over the next few years, these eight companies will not remain in the top 10.

Many nations have begun setting cut-off deadlines for manufacturing fossil fuel automobiles, and some have begun implementing them. China, the world's largest consumer of fossil fuels and of automobiles, has gone down that path aggressively as have most nations in Europe with the possible exception of Germany, which is the largest European producer of cars with internal combustion engines. The shift in big markets has already begun happening this year. An electric car was the bestselling automobile in The Netherlands and in Norway last month. In Switzerland it was the fourth-bestselling, and the trend is accelerating exponentially. Though the base is small, the electric car is the only growing category in European automobile markets, regularly adding high double-digit growth. Even in America, the bestselling car by value is an electric car, the Tesla Model 3, which is also the automobile that is the bestselling by volume in its category, outselling Audi, BMW, Mercedes-Benz, Lexus and Jaguar combined.

The interesting thing here is that it is not the traditional automakers that have claimed this space. One would imagine that since they have been building cars for so long — Daimler, Ford and General Motors for over a century, and Toyota and Volkswagen for eight decades — and since they have such resource available — they all made a net profit of between \$2 billion and \$8 billion last year — that they would be expected to lead the transition to electric. But they have not, and, in fact, they have fallen behind so far that they are in danger of dying out in time.

This may seem surprising but the fact is that they have no real advantage in this transition and may even be handicapped. A 2016 report in the *Financial Times* explained how. It reported that "one of the car industry's most outspoken figures — Sergio Marchionne, chief executive of Fiat Chrysler — has warned that the trend towards electric vehicles threatens the sector's viability and should prompt a rethink about the merits of consolidation." Marchionne, who died last year, explained that automakers had all gone through a process he called disintermediation, under which they gradually lost control over elements of a vehicle's contents to suppliers. "Having initially manufactured all their own components, car makers currently retain primary control of making only vehicles' powertrains — their engines and transmissions," the report quoted him saying, adding "if we start losing any of that... we will not be able to hang on to any proprietary knowledge and control of that business... We won't be manufacturing the batteries. We won't be manufacturing the electric motors that are part of that powertrain."

Unfortunately, the automakers currently make a profit out of diesel and petrol cars and, therefore, their shareholders and quarterly earnings interests keep them from investing seriously in electric motors and battery technology. And in tech, leads that are decades old cannot be reversed as we know from other consumer products.

The world's biggest car battery makers are Panasonic, LG and China's CATL. In fact, the battery, drivetrain, instrument cluster, infotainment system, climate control, electric motor and charger of the Chevrolet Bolt are all made by LG. General Motors has no expertise in this field and it is too specialised for them to now catch up. Another vital area for electric cars where car makers are lost is software. Tesla is the only automobile that can receive over the air updates for the entire car — a recent one made the car faster for all owners — and uses serious artificial intelligence for its limited self-driving abilities. Comparing the most expensive Mercedes-Benz or BMW to a \$40,000 Tesla is like comparing rotary telephones to the iPhone 11.

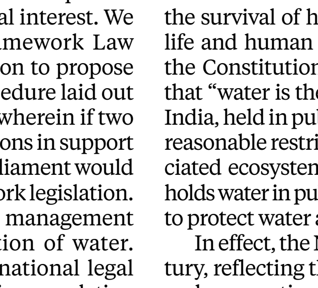
The decline of the internal combustion engine is upon us and its death is certain. Indeed, even if we ignore regulation and the dangers of climate change, the fact is that the internal combustion engine is an outdated century-old technology, which has already been eclipsed by electric cars. Consumer shifts will follow once there is awareness. Not many Americans know that Tesla (which spends no money on advertising) produces an electric car on one can buy today with a range of 600 km on a full charge. This car is quicker than a Ferrari or Porsche, safer than a Volvo and has more passenger and luggage space than a Toyota. It is also cheaper to run, holds its value better over time and is often cheaper to purchase. There is no compelling reason to prefer the old technology. The change will come quickly and will wipe out entire industries. In Norway, it has been purely policy and regulation that has led the transition to electric, essentially through the government raising awareness, and providing infrastructure and incentives.

In India, there have been brave words by this government about phasing out petrol and diesel cars by 2030 (words that have since been withdrawn), but no real action has been forthcoming. Niti Aayog released a fairly anodyne paper on the matter last year. A Bangalorean named Chetan Maini produced a compelling electric car called the Reva many years before Tesla did, but his product (renamed e20 after Mahindra bought the company) did not receive the sort of government backing it should have. Tesla was also a start-up but got a \$465 million loan from the Obama administration which helped it scale up. Today it leads both the electric and the autonomous revolutions, which have become irresistible.

On September 25, Minister of Road Transport and Highways Nitin Gadkari was quoted as saying that "several big personalities from the country met me and said they want to bring driverless vehicles to India. I clearly told them that till I am there, I shall not allow driverless cars in India. I was asked whether I oppose new technology. I said not at all." He explained that India had 4 million drivers (for various cab services and so on) and there was a further shortage of 2.5 million drivers. "I will not let the jobs of 10 million people be snatched away," by allowing autonomous cars, Gadkari was quoted as saying. This is the textbook definition of a Luddite.

A tidal wave is forming that is poised to wash away the world's largest corporations. There are opportunities of historically unprecedented scale which have emerged amid this disruption, which will become more and more violent every year. And just as happened in the digital arena, companies and nations will stand aside helplessly and watch as the change washes over them.

Water laws still stuck in the 19th century



WATER: REFORMS OR PERISH

MIHIR SHAH

In 2015, I chaired a committee set up by the Government of India to initiate urgent reforms in the laws governing water in India. In the Indian Constitution, water is a state subject. A popular but highly mistaken view is that converting water into a central subject would enable better management of India's water resources. Our committee took a contrary view. Given the very nature of water as a shared, common pool resource, and based on all successful efforts at managing water in India, we argued instead for adopting the principle of subsidiarity, which requires bringing the solution to the problem closest to the level at which the problem appears. Hence, the need is to decentralise water management as far as possible, involving the primary stakeholders in resolving water issues, as argued in earlier articles in this column, and as underlined by the 73rd and 74th amendments to the Constitution.

At the same time, however, we recognised that because water conflicts are becoming more widespread and intense by the day, there is an urgent need for a broad national framework of common approaches and principles to bring about prudent and socially just use of water, even while leaving room for flexibility on context specific detail. Article 249 of the Constitution empowers Parliament to legislate with respect to matters in the state list in the national interest. We thus drafted a National Water Framework Law (NWFL). We took abundant precaution to propose that the NWFL would follow the procedure laid out in Article 252 (1) of the Constitution, wherein if two or more state Assemblies pass resolutions in support of Parliament enacting such a law, Parliament would accordingly enact it. This is a framework legislation. It is not intended to centralise water management or change the constitutional position of water. Rather, it provides an overarching national legal framework with principles for protection, regulation and management of water that would govern the exercise of legislative and executive powers by the Centre, states and local governance institutions.

The NWFL seeks to underscore a perspective, which reflects the central and multi-dimensional place of water in the life of people: "Water is the common heritage of the people of India; is essential for the sustenance of life in all its forms; an integral part of the ecological system, sustaining and being sustained by it; a basic requirement for livelihoods; a cleaning agent; a necessary input for economic activity such as agriculture, industry, and commerce; a means of transportation; a means of recreation; an inseparable part of people's landscape, society, history and culture; and in many cultures, a sacred substance, being venerated by some as a divinity". It is this recognition that has largely been missing but must guide formulation of water programmes and policies in India.

The law incorporates all major legal pronouncements by the Supreme Court with reference to water, such as the public trust doctrine and the recognition of the right to water. The Supreme Court has held that "our legal system includes the public trust doctrine as part of its jurisprudence. The State is the trustee of all natural resources which are by nature meant for public use and enjoyment". The Supreme Court has also held that "Water is the basic need for the survival of human beings and is part of right to life and human rights as enshrined in Article 21 of the Constitution of India." Thus, the NWFL states that "water is the common heritage of the people of India, held in public trust, for the use of all, subject to reasonable restrictions, to protect all water and associated ecosystems." And that "the state at all levels holds water in public trust for the people and is obliged to protect water as a trustee for the benefit of all".

In effect, the NWFL brings water into the 21st century, reflecting the emerging reality, understanding and perspectives on water. It may be hard to believe but our groundwater continues to be governed by British common law of the 19th century, whose provisions grievously increase inequity in water access and unsustainability in water use. The common law doctrine of absolute dominion gives landowners the right to take all water below their land. In effect, the legal status of groundwater is that of a chattel to the land: "The person who owns the surface may dig therein and if, in the exercise of such right, he intercepts or drains off the water collected from his neighbour's well, this inconvenience to his neighbour falls within the description of *damnum absque injuria* [damage without injury], which cannot become the ground of an action".

It is now much better understood through the science of hydrogeology that water flowing underneath any parcel of land may not be generated as recharge on that specific parcel. Recharge areas for most aquifers are only a part of the land that overlies the aquifer. Hence, in many cases, water flowing underneath any parcel of land will have infiltrated and recharged the aquifer from another parcel, often lying at a distance. When many users simultaneously pump groundwater, complex interference occurs between different foci of pumping, which is a common feature in India, where wells are located quite close to one another. This is typically how water tables have plunged and since there is no legal protection available against such consequences, lives and livelihoods of millions have been endangered. Our committee, therefore, also drafted the Model Groundwater (Sustainable Management) Bill, 2016, which uses the principles of the NWFL to overcome the existing legal anomalies governing groundwater. It brings in the "doctrine of reasonable use", making it illegal for one to use groundwater in a way that deprives others of their right to water for life.

Without these legal reforms and the fortifications they afford, we could seriously undermine the best work on water, which has been outlined in each article in this column. This new legal paradigm is the enabling bedrock for innovations in water management in India.

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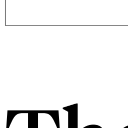
The fine art of staying focused



BOOK REVIEW

SANJAY KUMAR SINGH

My son and I work on adjacent tables in the study room at our home. His attention span is, to put it delicately, gossamer-like. Five minutes into a study session, it snaps. His hand then slithers across and picks up my mobile phone. I glare at him and retrieve it. Ten minutes later, he makes another attempt. If I am typing frantically to beat a deadline, he gets a free run with the phone, until his mother, happening to pass by, catches him and repossesses the offending article. At night, he has been known to steal out of bed, tiptoe into the study, and watch movies on my laptop. Countless other stimuli succeed in drawing him away from his books — his mother conversing with the household help, a deliveryman ringing the doorbell, Netflix playing on TV, and so on.

If a similar scenario plays out in your home, or you yourself struggle to focus on the task at hand, then *Indistractable* is the book you should turn to for help. It will provide some solace to learn that distractions are not unique to our times. Every generation has in its turn worried about the impact of the latest innovation. People have, in the past, fretted about television, video games, cable channels, and ridiculous as it may appear now, even about the printing press when it was first invented (they worried about its deleterious impact on the oral tradition prevailing then). Today, of course, they worry about the damage that internet-powered mobile phones and other snazzy gadgets could inflict on their children's ability to focus on studies.

Early in the book, the author says that the objects causing distraction are not always the real problem. Often, the trouble lies with the person himself. Those experiencing painful and difficult times tend to be especially susceptible to distractions. He cites the example of a Yale professor who became addicted to her Striiv Smart Pedometer and spent a humongous amount of time working out so she could garner points and beat her competitors. Her obsessive exercising began to take a toll on her work and her well-being. The root cause, the author reveals, was not the pedometer but her marriage that was falling apart. All that huffing and puffing was her way of seeking refuge from her pain. Only by addressing this troublesome aspect of her life was she able to wean herself off her addiction, or at least gain a measure of control over it.

Reimagining the task at hand is one way you can make your work more interesting, and avoid getting distracted. Every day you could strive to do your job better or faster. Gather as much knowledge as you can about your field of work. As one gains mastery, even seemingly mundane subjects begin to come alive. The author says he tries to reimagine his job of writing books as one of searching for novel solutions to mankind's age-old problems. That is his way of investing his work with greater significance, and thereby staying motivated.

In another chapter, the author urges readers to introspect about the values they hold dear. What kind of a person do they wish to be? Do they want to be a good worker, father/mother, or a good friend? Do timeboxing (which basically means that a person needs to allocate chunks of time in his weekly schedule) for tasks that will help bring you closer to becoming the person you want to be. Merely desiring something in a vague sort of way will not suffice. If you want to be a good father, for instance, you must schedule time each week for teaching your daughter or engaging in an activity with her. Such timeboxing also helps address the lack of balance in life, wherein one role, say, work, takes over completely, to the detriment of others.

While the early parts of the book are devoted to handling internal triggers that can distract a person, in the latter part the author offers practical tools for keeping external distractions at bay. There are chapters on dealing with emails, group chats, mobile phone, and so on — tools that are useful but nibble away at our time and prevent us from being optimally productive. An entire segment is devoted to raising indistractable children, which parents, who are at their wits' end regarding how to deal with their children's inability to settle down and study, will find invaluable. Readers will also like the insights on behaviour and motivation strewn across the book.

Ultimately, however, a person can become truly indistractable when he realises that anything worthwhile and enduring can be achieved only through hard work and unwavering focus.

INDISTRACTABLE: How to Control Your Attention And Choose Your Life
Nir Eyal with Julie Li
Bloomsbury; 319 pages; ₹550