

MOVING THE NEEDLE

... the journey from policy to implementation...



MAY 2023



Dear readers,

In today's globalized economy, while trade rarely has any boundaries, strategic resources availability is quickly becoming a core geopolitical issue. India's blue economy and the latest findings of lithium deposits in the country have opened up various discussion points on the potential as well as way forward for them. Speaking of way forward, while the EV industry can succeed only with an equally strong supporting infrastructure, sustainability of Indian tech-enabled unicorns are other very important points to focus on.

The importance of credit ratings and technology can never be understated when it comes to companies and the economy at large as well as the accomplishment of SDG goals respectively. The Indian defence industry's focus on exports is parallelly being supported by enabling policies and procedures. Music as medicine is also an interesting avenue. Companies also through their cycles and credit ratings are something that become very important as a measure. The healing powers of music are known to all and with latest technological developments, it just enhances the powers of music.

We endeavor to cover above key areas in this edition of the now christened "Moving the Needle". The intent is to highlight and converse on the most critical topics in the most strategic sectors for India.



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01 – Policy Square

Policy Square | A Primus Partners initiative to understand the more fundamental questions in policy making

Primus Partners on 28th December 2021, launched **Policy Square**, in association with Businessworld.

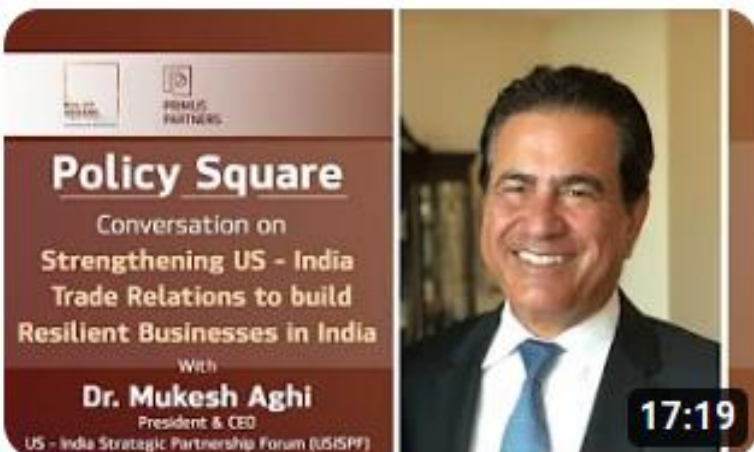
Policy Square, an initiative by Primus Partners, is a monthly expert interview series wherein key constituents of the public policy ecosystem – senior policy-makers, civil society members, business executives etc. – are interviewed on critical issues and

policies of national importance to explore their impact on the country and industry at-large.

The motivation for the Policy Square series is driven by Primus Partners' rich policy-regulatory knowledge, as well as experience of delivering projects across multiple sectors, with an aim to leverage this knowledge, and create a platform to table in – depth discourse.

With this initiative, we have attempted to engage with experts at various levels within the country's ecosystem. Each expert has brought in a new perspective – all towards enabling India's growth both in absolute and relative terms.

Latest episode features **Dr Mukesh Aghi, President and CEO USISPF**



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02 – Economy

Blue Economy - Diving into an ocean of golden opportunities

The Government initiatives such as PLI, PM Gati Shakti and Make in India have acted as growth engines for the economy, giving thrust to manufacturing, logistics and infrastructure sector. As the country moves forward to achieve its big goals in Amrit Kaal, it will be important to continuously explore new avenues to fuel up country's economic growth. It is pertinent to note that India's vast coastline of 7,500kms and its EEZs extending over 2.2 mn sqkms provides significant potential to harness the blue economy. The Blue Economy encompasses a wide range of sectors, including fisheries, aquaculture, shipping, ports, coastal tourism, marine biotechnology, etc emerging as a central point to sustainable development programs. We propose a "Sapta Vision" (7 key drivers) for development of the Blue Economy in the country-

Fisheries and aquaculture: India is the world's second-largest fish producer, and the fisheries sector contributes significantly to food security, employment, and export earnings. Aquaculture, particularly the farming of high-value species like shrimp, sustainable fishing practices, advanced technologies, and value-added services, which would help generate more revenue and create employment opportunities can also contribute significantly to boost this sector.

Maritime trade and transportation: India's strategic location in the IOR allows it to tap into significant trade opportunities. Enhancing port infrastructure, shipping, and coastal transportation can improve efficiency, reduce costs, and facilitate the growth of other industries, thereby contributing to the overall economy. Additionally, it is important to implement a cost-effective national multimodal network integrated on a digital grid to reduce logistics and transportation costs along with warehouse and cargo consolidation infrastructure.

Coastal and marine tourism: India's vast coastline and rich cultural heritage offer numerous opportunities for developing coastal and marine tourism. Developing infrastructure and promoting eco-friendly tourism practices can attract both domestic and international tourists, leading to increased revenue and job creation.

Offshore energy resources: The Blue Economy can help India diversify its energy portfolio by tapping into offshore wind, wave, tidal, and thermal energy resources. This would help meet the increasing energy demand and contribute to energy security, while also promoting low-carbon economic growth.

Marine biotechnology and pharmaceuticals: India's rich marine biodiversity presents opportunities for developing new drugs, bioactive compounds, and other value-added products. Investment in research and development in this sector can lead to innovations that boost economic growth and improve public health.

Coastal infrastructure development: India has 12 major and over 200 non-major ports along its coastline. There is considerable scope for expanding the capacity and efficiency of these ports, which can lead to increased trade and economic growth. Coastal infrastructure such as ports, harbors, and SEZs can help facilitate trade and industrial growth, in turn contributing to increased revenue, job creation, and overall economic development.

Sustainable management of marine resources: Ensuring the sustainable use of marine resources is crucial for long-term economic growth. There is a need for comprehensive and effective monitoring, control and surveillance systems for reducing non-sustainable fishing practices and achieving broader sustainable development in the Indian Ocean.

Hence a strong Marine Policy is required, addressing the challenges and incorporating the policy measures related to the above aspects of the blue economy. The blue economy is one of the core dimensions of growth and by investing in the Blue Economy and adopting eco-friendly practices, India can achieve its economic targets while preserving its marine ecosystem for future generations. Hence, the sea presents a golden opportunity for growing India's economy and food security, sustainable development, enhancing exports and employment.



03 – Geopolitics

Lithium in India - Optimal results will require extensive preparedness

A recent discovery of 5.9mn tonnes of lithium deposits in the Union Territory of Jammu and Kashmir has sparked new hopes for the development of the renewable energy sector in India.

What is the significance?

The discovery of lithium has great significance at a time when the entire global community is coming together in a collective fight against climate change. The insistence on adopting a more sustainable style of living and making way for non-conventional sources of energy has become a global phenomenon. At this juncture, the discovery of huge stashes of lithium in the Indian territory puts India on the path of greater *Atmanirbharta*.

Lithium is a key component of the lithium-ion batteries used to store energy in electric vehicles (EV) and power generated from non-conventional sources like solar and wind. This could also prove to be a game changer in meeting India's targets of EV penetration to the extent of 30% in private cars, 70% in commercial vehicles and 80% in two and three wheelers by 2030.

India is currently a net importer of lithium with major dependence on countries like China, Japan and the US. The use of domestic lithium will also have two-pronged economic advantage of reduction in the cost of lithium-ion batteries and also create newer opportunities of revenue generation and job creation in Jammu and Kashmir.

Opportunities and Challenges

While the discovery is being pegged to be a gold jackpot for the energy transition fable of the country, it does not come without its share of challenges.

The biggest task at hand for geologists in India is to prepare for the extraction of the mineral. The deposits are said to be of G3 grade which means that the commercial viability of the mineral can be vouched for

only after preliminary extraction. Experts familiar with the terrain advice against having high hopes as the possibility of any reserves in that belt had been ruled out nearly 25 years ago. Thus, the process from extraction to quantifying the amount of lithium that can be used for commercial manufacturing will be a long and arduous process.

The second point of contention is the geographical point of discovery. The Salal-Haimana area of Reasi district is known to be an area of high seismic activity and was hit by multiple low intensity earthquakes last August and September. Thus mining in an ecologically challenging zone might pose challenges of its own for the people and the decision-makers alike.

Another very important point to consider is the water and energy consumption towards mining and processing of lithium which can result in environmental footprints in the local regions.

Conclusion

At a time when global undercurrents are undergoing rapid changes and development priorities are being re-aligned, India is also moving ahead in its bid to champion the cause of sustainable development. The discovery of lithium with its fair share of challenges is a reminder yet again for the country to enter into greater capacity building partnerships with other countries and / or companies to develop the expertise and technical know-how to make the most of this opportunity.

This is also a time for the country to re-assess and make greater room for public private partnership in R&D of newer non-conventional sources of power generation and rescript the story of India's energy transition.

04 – Infrastructure

India's EV growth story – Needs a lot more “charge”

The EV industry in India has gained significant traction in recent years, owing to a growing emphasis on lowering emissions and promoting sustainable transportation solutions. FADA reports that the YoY market share of e-passenger vehicles doubled to 2.6% in March, up from 1.3% in March 2022. However, for the EV industry to truly thrive, a robust charging infrastructure must be developed across the country. The lack of public charging infrastructure is a primary barrier to global EV adoption, outweighing concerns about the high cost of EVs.

The Indian government has made significant strides in promoting EV adoption through policy measures targeted at manufacturers and end consumers, such as FAME I and FAME II, which were primarily demand-generating schemes. It has largely been a one-sided enhancement strategy. However, it is now time to shift the focus to private players looking to set up charging infrastructure at public locations, as this is a crucial factor in driving EV adoption.

The Delhi Government's Action Plan for Charging Infrastructure 2022-25 serves as an excellent example of a targeted approach to address this pressing need. The development of EV charging stations across the country is critical to meeting India's ambitious 2030 targets. The existing EV charging infrastructure in India is insufficient to support the expected growth in EV adoption. India had 5,254 public EV charging stations as of January 23, 2023, serving a total of 20.65 lakh EVs. This means that there is one public charging station for every 393 EVs in the country. This lack of infrastructure not only limits the range of EVs but also deters potential buyers, preventing widespread adoption of electric mobility in the country.

Recommendations for expansion of EV charging infrastructure in India:

Tax Incentives: Provide tax breaks or exemptions for businesses and entrepreneurs investing in EV charging infrastructure, such as reduced corporate tax rates or accelerated depreciation benefits, to encourage the growth of the charging network.

Subsidies/Grants/Low Interest Loans: Offer financial support in the form of subsidies or grants to private players for the installation of EV charging stations, thereby reducing the upfront capital expenditure and promoting investment in this sector.

Partnership/Reduced Annual License Fees: Incentivizing petrol pumps, shopping centers, and parking lot operators to provide EV charging infrastructure by offering them reduced annual license fees or other financial benefits, encouraging the integration of charging stations in high-traffic areas.

Public-Private Partnerships (PPP): Promote collaboration between the public and private sectors for the development of EV charging infrastructure. Encourage public sector organizations to install EV charging stations at their facilities or partner with private players to set up charging infrastructure in public spaces.

Single Window Processing for Permits and Land Allotment: Streamline the permit and land allotment process for setting up EV charging stations by establishing a single window system, reducing bureaucratic hurdles and expediting the approval process for investors.

Adjusting Building Bye-Laws to Accommodate Charging Infrastructure: Amend existing building regulations and Urban and Regional Development Plans to mandate the installation of EV charging stations in new residential and commercial developments, ensuring that the necessary infrastructure is in place to support the growing number of EVs on the road.

The Indian ministries including MHI, in collaboration with MoP and MoRTH, and NITI Aayog, could spearhead a concerted effort to address the challenges of EV charging infrastructure development in India. By bringing together multiple stakeholders under a single platform, they can facilitate the establishment of consolidated guidelines and standards for charging infrastructure.

Additionally, implementing clear regulations regarding technical standards pertaining to grid connectivity and safety will ensure a uniform approach to EV charging infrastructure development across the country.



05 – Technology

India's unicorns – Important to become cash flow positive as early as possible

The Government of India has recognised a total of 86,713 startups till 2022, compared to just 445 back in 2016. This makes India the third largest start-up ecosystem in India after the US and China. Furthermore, India has also witnessed an unprecedented growth in the number of unicorns in the last five years.

Till 2017, approximately one unicorn was being added every year. Over the next four years, there was a 66% year-on-year growth in the number of unicorns being added annually and now, India is home to 107 unicorns with a total valuation of \$340.79bn. Out of these, 44 unicorns were added in 2021 and 21 unicorns were added in 2022.

While these numbers are encouraging and augur well to project India's growth story, we have witnessed a considerable slowdown in the number of unicorns, their valuations and access to funding since 2022. Compared to the highs of 2021, start-up funding has declined by over 30% in 2022.

Rising geopolitical tensions and inflationary headwinds are the major macro reasons leading to the startup funding winter. From a micro perspective, most Indian unicorns follow a business model on the idea of incentivizing or discounting.

PE/VCs have pumped ample funds across rounds into these startups, thus they showed tremendous growth in terms of user acquisition and cracking the product-market fit. This has led to higher and exaggerated valuations but with mounting losses as the unicorns prioritized growth over profitability. India currently has only 18-20 profitable unicorns.

PE/VCs typically come in at low valuations and stay invested with the hope of a 10-100x ROI as the startup scales and eventually finds its route to a public offering. The initial lot of unicorns that launched IPOs did not find success and the market cap of these

companies has dropped by more than 50% compared to the listing price.

The number of start-up IPOs more than halved from 11 in 2021 to just four last year. Consequently, other unicorns in the process of launching IPOs have put their plans on hold. Juxtaposed to this, we have also seen shining examples of unicorns like Zerodha, Billdesk, Zoho, etc. which have turned profitable in a short span

The funding winter is here to stay, and unicorns shall have to look within for course-correction and focus on improving cash flows or even pivot their entire business model to a more sustainable one. The funding winter will not last long but shall serve as a reality check for the startup ecosystem.

We expect PE/VCs to explore opportunities in verticals such as fintech, agritech, AI, climate-tech and mobility, in the short to medium term. Sustainable growth and customer loyalty will be paramount as investors look for the next big idea. The next phase of the Indian startup growth story will be graduating of these unicorns via successful IPOs and the coming years would see investor focus and activity in that direction.

06 – Aerospace and Defence

SCOMET – evolving towards more export preparedness

The export of Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) as listed out in the concerned notification are permitted only against an export authorization unless prohibited or permitted without authorization subject to fulfilment of conditions.

be independently governed [restrictions or conditions prescribed in ITC (HS)] by Chapter 10 of the new foreign trade policy, unlike earlier policy where governing policy was covered under corresponding scheme's chapter.

SCOMET Category	SCOMET items	Jurisdictional Licensing Authority	Remark
0	Nuclear materials, nuclear-related other materials, equipment and technology	Department of Atomic Energy (DAE)	Including items mentioned in Note 2 of CIN of SCOMET List
1	Toxic chemical agents and other chemicals	Directorate General of Foreign Trade (DGFT)	
2	Micro-organisms, Toxins	DGFT	
3	Materials, Materials Processing Equipment and related Technologies	DGFT	
4	Nuclear-related other equipment and technology, not controlled under Category '0'	DGFT	
5	Aerospace systems, equipment, including production and test equipment, and related Technology and specially designed components and accessories thereof.	DGFT	
6	Munitions List	Department of Defence Production (DDP)/ Ministry of Defence	Excluding those covered under Note 2 and 3 of CIN and Sub-category 6A007, 6A008
7	'Reserved'	DGFT	
8	Special Materials and Related Equipment, Material Processing, Electronics, Computers, Telecommunications, Information Security, Sensors and Lasers, Navigation and Avionics, Marine, Aerospace and Propulsion.	DGFT	

Chapter 10 of the Foreign Trade Policy 2023 provides an overarching framework with all SCOMET related provisions under one roof - from the earlier version of the policy, Hand Book of Procedures and SCOMET list under ITC(HS). This makes it an easier reference while also potentially clarifying any doubts parallelly. A self-disclosure scheme is also available under SCOMET. whereby, in case an exporter fails to comply with the export control provisions of the relevant legislations, or any regulation related to SCOMET authorization, a voluntary self-disclosure may be filed by such exporter immediately after such violation is discovered. The exporter will further be liable for stricter action for any violation of SCOMET policy where it comes to the notice of DGFT other than under the voluntary self-disclosure option.

India is placing a lot more emphasis on defence exports as its integration with export control regime countries strengthens including as part of the Australia Group, Wassenaar Arrangement as well as the Missile Technology Control Regime (MTCR). There is a wider outreach and understanding of SCOMET (Special Chemicals, Organisms, Materials, Equipment and Technologies) among stakeholders, and the policy regime is being made more robust to implement international treaties and agreements entered into by India. It is important to today identify the correct category in which the proposed export items fall under.

A robust export control system in India would provide access of dual-use high-end goods and technologies to Indian exporters while facilitating exports of controlled items/technologies under SCOMET from India. Export of SCOMET items will now

DGFT's focus on simplifying policies to facilitate the export of dual-use high-end goods / technology is a clear recognition of India's export controls being in line with international commitments under the various multilateral export control regimes enacted to control trade in sensitive / dual-use items/technology.

A key feature of the Foreign Trade Policy 2023, which further solidifies India's position as a trend setter in policy framework and industry friendliness, is the new voluntary disclosure framework for SCOMET/ dual-use items. Given the complexity of the dual-use export control regime, many exporters (especially in IT services) occasionally and involuntarily miss out on compliance. The voluntary disclosure framework will provide an opportunity to such responsible exporters to self-disclose incidents of non-compliance to DGFT and avoid consequences. This should enhance export competitiveness for India.



07 – Healthcare

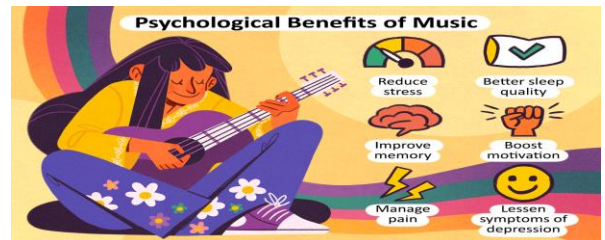
Music and Medicine - striking a chord to be in sync

There is Science in every Artform and there is Art in all of Science, and these are the two elements that form all of life. One artform that every human experiences consistently throughout their life is music. The omnipresence of music transcends all cultures, ages, communities and religions and evokes visceral feelings amongst humans. The depth of influence of music is clearly visible in the physiological and psychological response by the human body towards music or certain sound patterns. The relationship between music and mental health has been studied closely over decades and is now being used as a potent therapeutic tool for management and treatment of mental disorders.

Music as a therapy is used for treatment to address physical, emotional, cognitive, and social needs of individuals by the means of specific sound patterns. It is an evidence-based therapeutic measure found to be effective for individuals with a variety of mental health disorders, including depression, anxiety, and PTSD. A study published in the Journal of Music Therapy found that music therapy significantly reduced symptoms of depression and anxiety in adults. Therapists deliver music therapy in active and receptive forms. The active form requires the person to engage in the creation of music by singing, playing an instrument, movement, songwriting etc., while the passive interventions involve listening to music, guided imagery through music, musical conversation etc.

The practice of Music Therapy in Clinical Psychology came about after World War II as means for those traumatized by the war to express themselves in a creative manner and make music and movement their outlet. One of the pioneers of modern music therapy was a woman named Eva Augusta Vescelius, who began using music as a form of therapy in the 1940s. Vescelius was a cellist and music educator who became interested in the therapeutic potential of music while working with children with disabilities. She went on to establish the first music therapy degree program at Michigan State University in 1944.

Music therapy also helps the patients build a social community through collaboration. This is primarily used as technique to rehabilitate patients with PTSD, substance abuse, autism spectrum disorders and other mental illnesses that cause isolation from society. It serves as a distraction from causative factors for anxiety and depression and helps build meaningful connections amongst humans.



Interestingly, music forms muscle memory in a person who has practiced it for a long time, hence in cases of Alzheimer's Disease, music can be used to stimulate memory which gives the patient feelings of familiarity and security.

Studying and understanding of theoretical classical music is directly linked with higher intelligence and memory retention. Children who take up performing music in some form are more likely to develop healthy communication habits and self expression, which leads to higher self esteem and a balanced emotional state. Several vulnerable communities that see high rates of juvenile substance abuse and violence use music therapy to reform and discipline the youth and develop healthy habits in them.

Music therapy has also been proven to be a pain management technique for patients with chronic illnesses like cancer, advanced diabetes, amputations, cardiac conditions etc. Music serves as a mood regulator and distraction from fatigue and pain.

In conclusion, music is an incredibly powerful tool for promoting mental health and well-being. Whether we're listening to our favorite songs to boost our mood, learning to play an instrument to improve our brain function, or participating in music therapy to address mental health concerns, music has the ability to touch us on a deeply emotional level and provide a source of comfort and connection. As we continue to explore the therapeutic potential of music, we're likely to discover even more ways that it can help us lead happier, healthier lives.

08 – Financial Services

Credit Rating Industry and Trust Factor – Joint to the core

As the Indian economy continues to grow, the credit rating industry has become an important factor in determining the health and stability of businesses operating within the country. Capital markets, bankers, and investors **rely heavily on credit rating before making financial decisions.**

However, In the Indian context, the crisis affecting Infrastructure Leasing and Financial Services Limited (IL&FS) due to misleading rating, along with SEBI cancelling the license for Brickworks Rating owing to **multiple lapses, has called into doubt the reliability of credit ratings.**

The USP of the whole credit rating industry relies on trust. Any loss of trust in the accuracy and credibility of credit ratings can have significant ripple effects in the financial system in any country. **Hence, it is crucial to take measures that will improve transparency, standardize processes and reduce conflicts of interest.**

Indian Credit Rating Industry

The credit rating industry in India is relatively young, with the first credit rating agency, Credit Rating Information Services of India Limited (CRISIL), being established in 1987. Since then, several other agencies have entered the market, including ICRA, CARE Ratings, and India Ratings and Research. Each of the agencies has a slightly different focus, but they all provide credit ratings across a range of sectors.

The top 2 credit rating agencies control 75% of the market share, leaving little room for new entrants. With increasing complexities of rating complex products, the industry is faced with significant issues such as:

- **Lack of transparency.** Given each agency has their own credit rating system and parameters, this **lack of standardization** has made it challenging for stakeholders to assess the accuracy and reliability.
- Second, there have been concerns about the **quality and consistency of credit ratings** in India. Some stakeholders have argued that credit rating agencies have been too slow to downgrade entities, leading to a lack of confidence in the ratings.
- Finally, another concern is the potential for **conflicts of interest.** Credit rating agencies are paid by the entities they rate, which can create a conflict of interest if agency feels pressure to provide higher rating in order to maintain a relationship with client.

In response to some of these concerns, the Securities and Exchange Board of India (SEBI) has implemented several regulations aimed at improving the functioning of the credit rating industry. In 2018, **SEBI introduced a new framework for the monitoring of credit rating agencies**, which included stricter standards for the disclosure of information and management of conflicts of interest. SEBI has also mandated that credit rating agencies provide more detailed information about the entities they rate.

However, there are certain issues with the regulations of SEBI. There have been concerns of credit rating agencies influencing the regulatory process. Further, SEBI imposed a penalty of Rs 25 lakh on a credit rating agency for failing to downgrade the rating of a company in a timely manner in 2019. Critics argued that the penalty was too lenient.

In order to address these issues, both stakeholders, the regulators, and the credit rating agencies, need to take proactive action that can help re-build the lost trust.

Key regulatory recommendations are as follows:

- ✓ Require credit rating agencies **to disclose all potential conflicts of interest**, including business relationships with the companies they rate.
- ✓ Establish a **more robust oversight mechanism** and should **conduct regular audits of rating agencies**
- ✓ **Impose heavy penalties** proportional to the severity of the violations.
- ✓ **Rotate credit rating agencies** to avoid long term associations
- ✓ Understand feasibility of **replacing issuer pays model** with investor or regulator pays model

Credit rating agencies:

- ✓ Can provide more information about their **methodologies and processes.**
- ✓ Can also be more transparent **about any conflicts of interest that may exist.**
- ✓ Can be more transparent about **the performance of their ratings over time.**

In order to address the various issues highlighted, the government and the credit rating industry need to work together to mitigate any risks to the trust factor. **By adopting these solutions, the credit rating industry in India can become more effective and reliable, helping to drive economic growth and stability.**



09 – Impact

SDG and Technology – United we stand and enable

Adopted in 2015 by the UN, SDGs comprising 17 goals and 169 targets, are a holistic vision for ‘transforming our world’ into a more inclusive, equitable and prosperous place. There are several factors which aid implementation of SDGs, including, political will, financing, collaborations and partnerships, data analysis and monitoring, institutional and individual capacity building, communication and awareness. Technology and innovation have also found their place in being a critical factor in ensuring scalable, transparent and efficient implementation of SDGs.

Today, AI and associated technologies are making inroads into every sector and are key enablers for social impact. Research shows that AI will play a key role across the three primary objectives of SDGs - economic growth, social inclusion and environmental protection. It will act as an ‘enabler’ in the accomplishment of 134 SDGs (79%), while as an ‘inhibitor’ in a total of 59 targets (35%). If used effectively and ethically, there are several ways in which AI can accelerate implementation.

Data driven policy making and program designing: Large data sets pertaining to the SDGs can be gathered, analyzed and processed with the aid of AI which can then identify patterns, trends, anomalies, and other predictive analysis parameters that can guide policy and decision-making.

Monitoring and Evaluation: Due to the gradual nature of outcomes in development projects it is difficult to ascertain their impact and technologies such as image analysis can be used to monitor changes in land use, deforestation, and other environmental indicators.

Resource optimization: Through interventions like predictive maintenance, optimization of supply chain, inventory management, resource utilization can be optimized.

Emergency responses: Sensors and satellite imaging can be leveraged to provide rapid and efficient response

AI is making an impact across the most critical goals of SDGs. Given below are just a few examples:

No Poverty (#1): Efficient & targeted welfare delivery through integrated digital IDs.

Zero Hunger (#1&2): Prediction of food shortages, improvement in crop yields through precision agriculture, optimization of food supply chains and improvement in food quality through sensors

Good Health and Well-Being (#3): By significantly improving health diagnostics ability, analyzing large amounts of data to detect diseases, monitor outbreaks, and identify patterns that can lead to early detection and treatment.

Quality Education (#4): By giving students individualized learning experiences and also identifying students who are at risk of dropping out and recommending interventions to stop that.

Clean water and sanitation (#6): By monitoring water quality and infrastructure suitability

Industry, innovation and infrastructure (#9): Via better project planning, design models through generative design and risk mitigation

Sustainable cities and communities (#11): Through detailed urban planning and transportation systems

Climate action (#13): By monitoring and tracking carbon emissions, optimizing energy use and developing new systems.

While it is evident that AI technology will be a critical tool in the potential realization of SDG goals, there are certain factors that policymakers and organizations deploying these advanced tools should remain vigilant about – biases in data and ability to access AI as a medium coupled with discriminatory decision making. It would be important to ensure that development and implementation of AI tools is guided by ethical considerations and privacy and bias-prevention measures are taken.



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She has played a key role in advising the Commission on the economics of Competition law across an expansive range of markets specializing in digital markets and led interfaces between the CCI, sectoral regulators, government, industry and the international competition community. She has steered several market studies of the Commission including e-commerce, pharmaceutical, telecommunications, institutional investment, competition and film industry.

The recent amendments to the Competitions Act indicate a deal value threshold at INR 2000cr. The low DVT could possibly result in more cases being referred to CCI. How is CCI planning to deal with this possibility?

Before I answer the specific question, it is important to understand the rationale for the indicated amendment. The Commission's jurisdiction to review combinations was limited to those transactions that meet the asset/turnover threshold stipulated in the Competition Act, 2002. Further, the M&A transaction that meet the threshold(s) provided in Section 5 of the Act are eligible for exemption, if assets or turnover of the target business are below the threshold prescribed in the exemption notification (De-Minimis Exemption).

It is now widely recognised across jurisdictions that the asset/turnover criteria may fail to capture potentially anti-competitive transactions in new-age markets. It is also pertinent to note that these notification thresholds are particularly high in India in comparison to other jurisdictions. Some transactions may also fall below the turnover-based thresholds because the target's products are offered for free. Innovation-based products and services command lower turnover, especially in their nascent stage, as the emphasis is on growth. The value of the target's sales and assets may be a poor indicator of the merger's significance for competition. In such markets, the possession of intangible assets such as data, growth, and network effects have become means of gaining significant market position and are reflected in the valuation of the entity.

Firstly, not every M&A with deal value exceeding Rs. 2000 cr will be notifiable. This would be applicable only if the target has "significant business operations in India". The purpose of combination regulation is to identify and scrutinise mergers and acquisitions that are likely to affect competition in India. The objective of regulation has never been to impose compliance burden on

transactions that are not likely to have a considerable impact on markets in India. Thus, jurisdictional thresholds shall be such that transactions with sufficient local nexus alone are subjected to notification requirement.

Secondly, a number of deals above Rs. 2000 cr maybe notifiable without the criteria anyways as they would meet the notifiable assets and turnover thresholds. Moreover, the dispensation of notification for categories of transactions mentioned in Schedule I of the Combination Regulations (as has now been codified in the law) will also have an impact on the number of notifications. Thus, the overall effect of the value of transaction criteria is not likely to be unmanageable. This is also indicated by our internal estimates whereby we expect the impact on the number of cases not to increase substantially.

During the Competition Law Review Committee deliberations, it was suggested that an empirical assessment may be carried out for deals with high value which escaped scrutiny by the Commission. An in-house study was to understand the trend and the number of deals in the digital sector in India that escaped the scrutiny owing to asset/turnover falling below the thresholds. The findings were consistent with the experience of Germany and Austria where the impact was not very substantial on the number of cases.

Today there is a mix of both consolidation as well as new entrants coming into various fields. How do you think a balance can be achieved where new entrants while potentially disrupting the market do not, over a period of time, result in a monopolistic situation?

India is currently at the cusp of large-scale digitisation, with the emergence of start-ups across various sectors.

10 – Expert speak

Most start-ups are technology-driven businesses and typically rooted in innovation, and they try to address deficiencies of existing products and services or create new categories of goods and services. The start-ups thereby often disrupt established ways of doing business and have widespread impact on the sectors that they are part of. The fillip to this ecosystem has been provided by the Government of India's start-up India initiative, launched in January 2016 with the objective of building a strong ecosystem for nurturing innovation and start-ups in the country.

In the last few years, the Indian start-up ecosystem has also witnessed a wave of high-profile M&A transactions. These acquisitions traverse across various new age economy sectors such as fin-tech, enterprise-tech, health-tech, ed-tech, food-tech, among others. The profile of acquirers has also changed. Nowadays, a new trend has emerged wherein start-ups are on an acquisition spree. No firm trends are emerging; start-ups are buying start-ups but are also acquiring established businesses. The main motivation, as in any inorganic growth through acquisitions, is to expand market reach, product portfolios, geographic spread or simply to bolster the limited talent pools. Such acquisitions also allow start-ups to raise larger funding in subsequent rounds at higher valuations. Established Indian corporates have also expanded their digital footprint by acquiring start-ups. There have been reports that India has 115 unicorns and counting, which exemplifies the dynamic nature of Indian markets.

These acquisitions may be pro-competitive, generating substantial synergies and efficiencies, yet, there may be acquisitions that may have anticompetitive risks due to. These trends need to be observed. There has been a suggestion by the Parliamentary Standing Committee (PSC) on Big-Tech that "Systemically Important Digital Intermediaries" should report their acquisitions to the CCI, if not for anything else but to observe the emerging trends. To evolve a suitable regulatory response, it is important to have a strong empirical basis for doing the same. The newly introduced value of transaction threshold will allow for some of these deals to also be notified. The review will allow for taking appropriate measures before multiple transactions by a single entity allows it to monopolise a certain relevant market.

Between vertical integration (consolidating the supply chain) and horizontal integration (growing business share), which do you think requires a sharper focus with respect to competition laws?

The fundamental difference vertical and horizontal mergers is that vertical mergers combine firms that do not directly compete, but that operate in related markets of a supply chain. Therefore, in vertical mergers there is no direct loss of competition between the merging firms. Rather, they combine firms that are

in a buyer-seller relationship. Vertical mergers by definition combine complementary economic functions and thus, maybe pro-competitive as they eliminate contracting frictions and double marginalisation (profit cascading effect) to benefit consumers. Thus, the vertical mergers have potentially less chances of having adverse effects on competition. However, this traditionally held view was challenged by the FTC while recently rescinding the Vertical Merger Guidelines of 2020.

However, the adverse effect concerns like input and consumer foreclosure remain and need proper analysis before they can be given a go ahead by a competition authority. Vertical mergers may create the same concern over foreclosure, that arises when looking at exclusionary practices, such as margin squeeze or refusal-to-deal. Therefore, from the perspective of a competition regulator both vertical and horizontal mergers need equal attention, and they can't afford to be relaxed in either case. Moreover, there have been suggestions that horizontal consolidation in digital sectors should increasingly mean a presumption of illegality with the burden of proof shifting onto the parties to demonstrate the pro-competitive effects. Long standing economic theories guiding both horizontal and vertical mergers are being increasingly questioned.

How the recent market structures such as platforms affect the application of competition law?

In the last decade, the digital sector has witnessed tremendous growth in India as well as worldwide. While this growth has given rise to new business models, opened up new markets, and unlocked significant demand side efficiencies, it has also raised concerns that Big-tech firms may use excessive amounts of data to influence digital markets to their advantage. The economics has, thus, created a cohort of a few intermediation/aggregator platforms with data hegemony. New asymmetries of power have emerged, where the 'arena' of competition is an ecosystem of various complementary products/services and associated businesses. Since the interplay between data collection and competition is increasing and competition concerns related to data may be observed in a growing array of sectors, designing of appropriate measures to encourage competition may therefore be of increasing importance for competition policy. Interventions in digital cases are now premised on novel theories of harm guided by the economics of multi-sided markets. Once practices that attenuate competition are identified, it is important to address them through precise and carefully crafted remedies.

Another very important aspect of competition policy is combination regulation. The exponential growth of digital economy has given effect to a flurry of activity in the inorganic growth of digital companies. Over the past few years, there has been a wave of mergers and acquisitions in the digital economy. Technological firms, around the world, are continually expanding their reach across the markets in order to consolidate their market position. Anti-competitive risks emerge when such acquisitions pose a significant impediment to effective competition. Traditionally, competition authority's jurisdiction to review combinations is limited to those transactions that meet the asset/turnover threshold stipulated in the respective acts. Thus, the platforms being asset light may escape competition authority's combination jurisdiction. Therefore, competition authorities world over are exploring ways to fill this jurisdictional gap in platform markets. The Amendment to the Competition Act with the introduction of transaction value as an additional criteria for notification is likely to address this lacunae.

In digital markets, the theories of harm may need to be augmented as the focus cannot just be on price effects, price being a non-significant metric of competition in many digital markets. Factors such as data, quality, choice and innovation that shape the digital competition landscape would therefore be the relevant for formulating the theories of harm. The legal framework set out in the Indian Competition Act for determination of appreciable adverse effect on competition is broad and gives the Commission the flexibility to develop and test all such theories of harm that may be relevant in digital markets. The Commission is open to bring in such new dimensions in the substantive assessment. At the same time, the Commission is cautious not to let speculative theories replace objective and evidence-based analysis.

What do you perceive as the top 2-3 major challenges that CCI today faces and what is being done to address the same?

It has been argued that competition law, in its current manifestation, is unable to address the challenges raised by Big Tech. Several issues have been identified, including its procedural requirements and case-specific nature (which delays decisions), the substantive standards (which places extensive demands on authorities when establishing a contravention) or the remedies (which may be limited in restoring competition)

Secondly, when the same issue is brought before the competition authority for different product segments by different affected user groups, it leads to parallel/multiple investigations and adjudicatory process causing wastage of time and resources. Thus, when a specific practice is known to be anti-

competitive, repeating the adjudication process with respect to that practice for each product/service (which the current statutory process would demand) is not desirable from regulatory efficacy and resource optimisation standpoint. The same argument holds for remedy design as well.

The recent report of the Parliamentary Standing Committee on the anti-competitive practices of big tech has recommended that the Government of India examine the need for an ex-ante regulatory mechanism in the context of systemically important digital intermediaries. A Committee on Digital Competition Law (CDCIL) has been constituted by the central government and is deliberating on this matter. Ex-ante stipulation of codes is believed to provide the necessary certainty and clarity to stakeholders. . Going forward, new legislative instrument that has a flavour of 'competition law by regulation' may have to be introduced. This will be a challenging exercise.

In view of the growing number of cases and complexity in the digital sector there is an increasing need for data and technology skills at the Commission. The Commission is in the process of setting up a dedicated digital markets and data unit in CCI. In addition to the staff from the law, economics and finance streams, the unit will be staffed with new professional profiles such as data scientists, algorithm experts, etc. The specialist team will assist the Commission in evidence gathering and will be the nodal point for stakeholder engagement across industry, academia and other sectoral regulators.

Capacity and resource constraints of regulators is common across jurisdictions and not just India. However, effective cooperation between nation-states through international cooperation has resulted in knowledge sharing and leapfrogging for newer competition authorities such as ours. In the few years of working of our Competition law, India has been actively pursuing the idea of international cooperation and has already signed nine MoUs. India is also an active participant in international competition law seminars, workshops and deliberations.

Disclaimer: Payal Malik is advisor and head economics at the Competition Commission of India. Views are personal and cannot be attributed to the Commission.

About Primus Partners

Primus Partners has been set up to partner with clients in 'navigating' India, by experts with decades of experience in doing so for large global firms. Set up on the principle of 'Idea Realization', it brings to bear 'experience in action'. 'Idea Realization'— a unique approach to examine futuristic ideas required for the growth of an organization or a sector or geography, from the perspective of assured on ground implementability.

Our core strength comes from our founding partners, who are goal-oriented, with extensive hands-on experience and subject-matter expertise, which is well recognized in the industry. Our core founders form a diverse cohort of leaders from both genders with experience across industries (Public Sector, Healthcare, Transport, Education, etc.), and with varied specialization (engineers, lawyers, tax professionals, management, etc.).



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