

TELECOM SECTOR

The telecom sector is a cornerstone of economic development, driving growth, connectivity, and innovation. Improving the ease of doing business in this sector is crucial for fostering investment, enhancing service delivery, and promoting competition. Several dimensions contribute to the ease of doing business in the telecom sector, including regulatory environment, infrastructure, market competition, and technological advancements. Here's an overview of these aspects:

A streamlined and transparent regulatory environment is fundamental to enhancing the ease of doing business in the telecom sector. Regulatory bodies must create clear, consistent, and predictable rules to encourage investment and innovation. Key regulatory elements include:

Simplified and expedited licensing processes can reduce the time and cost for companies to enter the market. Digital platforms for application and approval processes help in reducing bureaucratic delays.

Efficient spectrum management and allocation are critical for telecom operations. Implementing transparent auction processes and ensuring fair distribution of spectrum can minimize disputes and enhance market competition.

Clear guidelines and support for compliance with regulations, including those related to data protection, quality of service, and consumer rights, are essential. Regular dialogue between regulators and industry stakeholders can help in addressing concerns and improving regulatory frameworks.

Robust and modern infrastructure is vital for the effective operation of telecom services. Efforts to improve infrastructure include Network Deployment: Facilitating the deployment of telecom infrastructure, such as towers and fiber-optic cables, requires reducing bureaucratic hurdles related to land acquisition and permissions. Streamlining processes for obtaining approvals and providing incentives for infrastructure investment can accelerate network expansion.

Collaborations between government and private entities can help in developing and maintaining infrastructure. Public-private partnerships (PPPs) can bring together resources and expertise to address infrastructure gaps and enhance service coverage.

Ensuring equitable infrastructure development across urban and rural areas is crucial. Special incentives or subsidies for telecom operators to extend services to underserved regions can help bridge the digital divide.

Promoting healthy competition within the telecom sector can drive innovation, improve service quality, and reduce prices. Strategies to enhance market competition include Reducing unnecessary regulations and opening the market to new entrants can increase competition. Deregulation can lead to more choices for consumers and spur companies to offer better services.

Implementing and enforcing measures to prevent anti-competitive practices, such as monopolistic behavior or collusion, helps maintain a fair competitive environment. Regular monitoring and prompt action against anti-competitive practices are necessary to ensure market integrity. Strong consumer protection laws and mechanisms to address grievances can enhance consumer confidence and ensure fair practices. Transparent billing, quality of service standards, and effective dispute resolution systems contribute to a positive market environment.

Changing healthcare needs holistic approach in education

■ VIJAY GARG

Changing healthcare needs holistic approach in education. Even as India stands tall as a significant contributor to the global healthcare workforce, there is a growing demand for skilled, competent healthcare professionals in the country. However, the medical education system grapples with several challenges especially related to quality and efficiency, limiting its ability to produce a workforce equipped to meet the changing healthcare needs.

A parliamentary standing committee report on the quality of medical education highlights the urgent need for a comprehensive transformation. The report identifies critical areas that require immediate attention. These include the uneven distribution of medical colleges across the country which hinders access to many students, the shortage of UG and PG seats. However, transforming medical education requires an approach that goes beyond just increasing the number of medical colleges and seats. There is a need to focus on quality, which will ensure that healthcare professionals get critical thinking skills and practical competencies that are the foundation of modern healthcare sector.

Competency-based education

The formation of the National Medical Commission (NMC) and the introduction of common entrance and exit exams are steps towards standardising medical education. However, the need of the hour is overhauling and modernising medical education through competency-based medical education (CBME). It focuses on real-world healthcare scenarios and the course and training is designed to equip students with necessary skills and competencies to effectively manage these. There is an emphasis on practical application over rote learning. The NMC has suggested guidelines with the CBME Regulations, 2023. However, we must go beyond just formulating guidelines if we are to successfully implement CBME in India. We need to invest in creating a strong base to build on, which includes robust infrastructure and continuous evaluation to ensure effectiveness. We must also strengthen faculty development through providing a supportive environment to create a pool of educators trained in CBME pedagogy. A collaborative approach involving government, regulatory bodies, and medical institutions is crucial for navigating the challenges of implementing CBME.

Equitable access to education

The concentration of medical colleges in urban areas creates a significant healthcare gap in rural India. The government's initiative to establish medical colleges attached to district hospitals is a positive step, but we must ensure these institutions receive adequate resources and have experienced faculty to deliver quality education, a formidable challenge.

A revolutionary step would be incentivising medical professionals to serve in rural areas.

While this could be in the form of financial support and career advancement opportunities, improvement in the living and working conditions is essential. The doctors must have the right infrastructure to make a difference to the lives of their patients.

Future requirements

India needs a forward-looking strategy for specialist training that aligns with the country's disease burden and projected healthcare needs. Statistics indicate a shortfall of more than 80% of the required surgeons and paediatricians in the 6,064 community health centres across the country as of last year. Shortfall of super specialist doctors like surgeons, paediatricians, obstetricians-gynaecologists across government hospitals in various states.

However, instead of randomly increasing seats in specialisations, a data-driven approach must be followed to identify areas requiring more specialists along with projection of future demand.

This will require collaboration between hospitals (public and private sector), government agencies, and individual healthcare professionals to analyse epidemiological trends, population demographics, and technological advancements to predict future healthcare needs.

(The writer is Retired Principal and Educational columnist)

Transforming India's Food Security with Irradiation Technology



■ CHIRAC PASWAN

The importance of food extends far beyond basic sustenance. It plays a central role in our festivals, social gatherings, and rituals, reflecting our cultural identity and social dynamics. Economically, the food industry drives growth, creates jobs, and fosters rural and agricultural development. It significantly contributes to the national economy through both domestic consumption and exports. As India moves towards the vision of Vikas Bharat in the 78th year of its independence, advancing food safety and security is crucial. This entails ensuring that food reaching consumers is safe from contaminants and minimizing food loss and waste to guarantee that sufficient, nutritious food is available to all.

Addressing food loss and waste, especially of perishable items like fruits and vegetables, is crucial for enhancing food security and sustainability. It also helps ensure remunerative prices for our farmers.

Additionally, as the trade of agricultural and processed food products grows, effective food safety management becomes increasingly important. Many developed economies have very stringent food safety regulations and practices to ensure safety of food imports. Food safety incidents can have serious economic repercussions, including public health risks, reduced consumer confidence, and disruptions in food supply and price stability. Therefore, safeguarding food safety is essential not only for protecting public health but also for supporting economic development, promoting international trade and maintaining market access.

To address the issues of food safety and security and in line with India's commitment to meet-

ing its Sustainable Development Goals targets, the Union Budget for 2024-25 has allocated funds for setting up 50 multi-product food irradiation units in the MSME sector. It reflects our dedication to food safety and security as food irradiation technology extends the shelf life and safety of agrifood products, ensuring they reach consumers in optimal condition while reducing food losses along the production and supply chain.

Food irradiation involves exposing food, whether packaged or in bulk, to ionizing radiation in a carefully controlled environment. This method effectively reduces the risk of foodborne illnesses by eliminating harmful microorganisms. It also prevents food spoilage by slowing down the decay process and destroying organisms that cause spoilage, while minimizing food loss by delaying premature ripening, germination, or sprouting. It also reduces the need for chemical preservatives in extending the shelf life of food products, thereby, contributing to a more sustainable food supply chain. Irradiation processing typically requires just one exposure treatment to achieve the desired effects, which streamlines the process, simplifies food safety practices, and contributes to cost savings in the food supply chain.

While the concept of using radiation for food preservation is not new-traditional methods like drying fruits, vegetables, shrubs, meat, fish etc. under the sun have been used for preservation since centuries-modern interest in food irradiation technology surged after the Codex Alimentarius Commission, part of the Joint Food Standard Programme of the Food and Agricultural Organization (FAO) of the United Nations, established global standards.

Food Irradiation, much like cooking, is a safe and effective method for ensuring food safety across all aspects. It has gained widespread adoption, especially in countries with advanced food safety standards such as the United States, the

European Union, Japan, Australia, and Canada, where it is extensively used for both domestic and export markets. A notable example of its impact is the 2012 agreement that allowed Indian mangoes to be exported to the United States after a 20-year ban. This breakthrough was achieved by India agreeing to irradiate its mangoes before export to eliminate or significantly reduce the threat of pests, thereby, protecting US domestic agriculture.

India has also made significant progress, establishing 34 irradiation processing facilities nationwide. The Ministry of Food Processing Industries (MoFPI) has played a crucial role in developing this infrastructure, with 16 of these facilities receiving MoFPI support. While this progress is commendable, expanding the number and distribution of facilities will further enhance our ability to meet the growing demands of our vibrant agri-food market.

However, widespread commissioning of off food irradiation facilities is constrained by high capital costs. Establishing an irradiation facility with a 1 MCI Cobalt 60 source requires an investment of approximately Rs. 25 to 30 crores, excluding land and additional infrastructure costs. Its commissioning process involves several critical stages, including proposal scrutiny, approval, site clearance, plant construction, source installation, safety assessments & guidance, supervision, commissioning, and ongoing maintenance including occasional replacement of radiation sources. Key organizations such as Bhabha Atomic Research Centre and the Atomic Energy Regulatory Board oversee this process.

Despite the initial high capital costs involved with these facilities, there are substantial opportunities for investors. The growing demand for safe, long-lasting food products in both domestic and international markets presents a lucrative investment opportunity. The ability to enhance

food safety and extend shelf life make food irradiation facilities as crucial players in reducing food waste and meeting stringent export standards. With the Indian food processing sector expected to reach USD 535 billion by 2025-26 and an ever-increasing share of processed food exports, irradiation facilities represent a promising investment opportunity.

To support infrastructure development aimed at reducing food wastage, the Ministry of Food Processing Industries (MoFPI) also offers financial assistance of up to Rs. 10 crore per project for setting up food irradiation units. This support, provided as grants or subsidies, is designed to treat perishable produce, including fruits and vegetables, and enhance their hygiene and shelf life. Following the announcement in the Union Budget 2024-25, MoFPI has invited Expressions of Interest from entrepreneurs for setting up multiproduct food irradiation units under the Integrated Cold Chain & Value Addition Infrastructure (Cold Chain scheme).

Given the critical role that food irradiation plays in enhancing food safety and extending the shelf life of perishable produce, there is a pressing need to expand our infrastructure to meet the growing demands of the Indian food supply chain and agrifood export sector. We urge investors and entrepreneurs to seize this opportunity to establish additional irradiation facilities, utilizing the financial support provided by the Ministry of Food Processing Industries. Investing in irradiation facilities will enhance food safety, minimize waste, and improve food security across India, while also ensuring better prices for our farmers. Join us in transforming India's food industry-your investment will drive the future of sustainable agriculture and contribute to a thriving economy.

(The writer is Union Minister, Ministry of Food Processing Industries)

Technology, often referred to as psychiatric aides, harms youth mental health

■ SURJIT FLORA

In today's technologically advanced society, smartphones have become an integral part of our daily lives, almost like an extension of our hands. Social media platforms provide us with a virtual window into the lives of not only our acquaintances, but also individuals we may not personally know. In the current era, individuals often find themselves easily immersed in the vast digital landscape. The user begins their online session by engaging in various activities such as checking messages, scrolling through the Instagram feed, and potentially watching multiple videos on YouTube. However, it is not uncommon to lose track of time and find oneself engrossed in the screen for an extended period.

At this point, the complexity of the plot increases. Recent studies have revealed intriguing findings indicating that excessive time spent in the digital realm can have a detrimental impact on our cognitive well-being, particularly among younger individuals. Exposure to a constant stream of curated perfection and the tendency to compare oneself to others can contribute to the manifestation of anxiety and depression. Furthermore, it is important to acknowledge the presence of FOMO (fear of missing out) that arises when individuals perceive others to be leading fulfilling lives through their online presence. As technology has become ubiquitous, affecting almost everyone. Smartphones are a wonderful example of this growing type of laptop technology. Having a smartphone in hand and accessing all the world's information with just a click has led to a surge in digital knowledge. On the one hand, it offers numerous benefits, but it also presents numerous drawbacks.

You will be surprised to know that 23% of children aged 5 to 7 have started using social media. Also, 50% of children over the age of 11 own a smartphone. Children between the ages of 8 and 17 spend an average of 4 to 6 hours on social media. 50% of these children also use their phones from 12 p.m. to 5 a.m. In light of this, today's article will discuss the impact of excessive technology use on the mental health of young people.

The impact of smartphones and social media on the younger generation is undeniable. From a very young age, it becomes deeply ingrained in their lives. They effortlessly integrate new technology into their lives, fearlessly exploring and experimenting with various devices, games, and platforms.

This desire comes from nature's progression.

Parents who are addicted to mobile phones can't blame their children for excessive smartphone use or the resulting behavioral problems. Children learn by observing our behavior: How can we possibly criticize their habits?

It is evident that our self-centered tendencies are on the rise, caus-

ing us to become more absorbed in our own affairs, sometimes at the detriment of others, including our own family members.

As our reliance on electronic devices continues to grow, the amount of face-to-face interaction we have with others decreases. This raises concerns about our ability to effectively communicate with our children. It's important for us to reflect on our compulsive use of technology and consider the impact it may have on our relationships. Would we truly understand and fulfill our children's needs and desires if we removed both our own and their smartphones in order to improve communication between us? Perhaps it would be beneficial for us to stay together in a common place, even if only for a brief moment of hesitation, instead of completely separating.

Today's children have become accustomed to having computers and the Internet as part of their everyday lives. They rely on the online world for various activities such as streaming music, sharing videos, making purchasing decisions, choosing outfits, planning outings, and even socializing (albeit virtually). They view technology as an almost seamless extension of themselves.

Outdoor ventures, whether in urban or natural settings, have lost some of their allure. Online activities have taken their place. When young people go out, they tend to choose places where they can be surrounded by others who are deeply engaged in their own digital world. Achieving a fundamental change can be facilitated through the creation of meaningful content that educates both adults and children about the development of nature and humanity. This content should elucidate how nature is inherently leading the world towards a state of equilibrium, as well as provide guidance on enhancing our communication skills to foster more balanced and harmonious relationships within society.

But wait, there's more to this story! It's not just about what we see online; it's also about how it affects our real-world connections. The act of spending extended periods of time fixated on electronic screens results in a reduction of in-person interactions with friends and family, leading to feelings of isolation and loneliness.

Thus, the aforementioned narrative represents a story that dates back to the inception of the internet. The topic of concern is the potential correlation between excessive technology usage and mental health challenges among young adults and teenagers. The given scenario can be likened to a contemporary fable that reflects the characteristics of the digital era. However, it is important to note that despite the presence of cautionary tales, there are also instances of hope that should not be overlooked. In order to successfully navigate the digital landscape without losing ourselves, it is important to find balance, unplug from technology periodically, and prioritize nurturing offline connections.

Elections: The Heart of Democracy

■ AYAAN SAROORI

Democracy is a fundamental structure that has been followed in India since independence. However, we cannot fully enjoy all the rights and freedoms of independence unless we have the opportunity to participate in all democratic exercises, particularly in electing representatives to strengthen the representative form of democracy. Elections are one of these democratic exercises, taking place periodically to maintain the socio-political stability of a country.

Elections can be defined as a formal decision-making process by which citizens elect a representative or multiple representatives to hold public office. It is a procedure to choose representatives. Before independence, India witnessed the election process, but electoral rights were not fully enjoyed, and the participation of Indian representatives was limited, as seen under the Morley-Minto Reforms of 1909.

Post-independence, the first general elections were held in 1951-52 with millions of eligible voters, though only a portion of them participated. The Indian National Congress, led by Jawaharlal Nehru, won the majority in these elections, setting the stage for India's parliamentary democracy. Over time, the Indian National Congress (Congress party) remained in power with different elected representatives.

For fair elections, various evolutions have taken place, one of which is the establishment of the Election Commission of India in 1950. The Commission was created with the aim of ensuring free and fair elections. Over time, it introduced several beneficial reforms, including the use of Electronic Voting Machines (EVMs), voter identity cards, and processes to ensure

transparency in the electoral process.

What makes elections democratic?

Free and fair elections is the primary measure which makes elections democratic. Elections should be conducted in a free manner without any manipulation and voters should be able to cast their vote without hurdles. All eligible citizens should be given proper voting identity without discrimination based on socioeconomic status, race, gender and religion. Second is regular election on fixed intervals, this is important to ensure that government is accountable to people. Meanwhile, in Jammu and Kashmir assembly elections are going to be held after 10 years after dissolution of Assembly from 2019 to then. By this time, we have been blessed again with enjoying our powers through electing our representatives again after 10 years.

Elections commission of India - a constitutional body formed in 1950 by constitution of India empowered to conduct free and fair elections. It does not affiliate with any government or particular ruling party due to which in recent elections free and fair elections have been increased. While it monitors each and every activity of political party or candidates in terms of funding for campaign, media coverage and other means used by a candidate. Moreover, Model Code of Conduct is a mechanism introduced by the commission to make eye on each activity of nominated candidates for election period.

These are not sufficient reason for making elections democratic but respect for the results, civic participation are also to be followed for the same. People should be aware of all the candidates of their constituency with basic informations and methods of using Electronic voting Machine (EVM)

and all the candidates, participants should respect the results of democratic elections. In nutshell, free and fair election without any discrimination and an independent body should conduct each activity or action of the process which make these elections democratic.

Are All Elections Truly democratic?

Many countries conduct elections regularly, but when there is no competition between opposing candidates, these elections become entirely undemocratic. For elections to be truly democratic, it is essential that multiple candidates stand for election, creating competition and providing citizens with real choices, all within a framework of the rule of law and a fair election process.

Countries like North Korea and Belarus, however, conduct elections in name only. These elections are far from democratic, as they are marked by force and oppression. What real benefit can come from elections that are neither free nor fair?

Moreover, elections should be competitive, with candidates from different parties or independent candidates vying for votes.

It is also crucial to adhere to the rules and regulations set by the Election Commission of India. Not all elections are democratic, but in India, elections are conducted through an independent constitutional body - the Election Commission - with transparency and in accordance with the rule of law. Since independence, India has maintained a democratic election process, which is vital for democracy and empowers citizens to choose their representatives.

Elections in India

In India there are various sorts of elections held after each five years. Generally, state legislative elections

are of the same kind and held after the same duration or when dissolved and then local level elections such as Municipal corporations and panchayats, etc.

For the impartial voting and the whole process a constitutional autonomous body takes overall responsibilities.

India being a populous country, it is not possible to vote through any other means and for easy and fair voting commission has set up Electronic voting machines (EVMs) on which any eligible person can vote under privacy to its favoured candidate. This system of commission is valuable and proved beneficial in various election processes besides many alleged of manipulation and electoral fraud but commission had neutralised all the allegations through independent audits and testing, conducted open challenges and various public demonstrations to prove all the false allegations baseless.

Your statement is mostly correct but can be refined slightly for clarity and flow. Each political party and participant in the elections publish a manifesto before the general public. A party's manifesto addresses various issues on which they campaign, including social welfare schemes, corruption, communalism, economic policies, national security, and other relevant matters that are crucial for the country's development in the present time.

Meanwhile, it is very important to vote a candidate who can fulfil the pre-elections promises and he/she should be honest, educated and dynamic.

"Voting is our right, and we should not waste it, as

it provides us the opportunity to choose our future."

(The writer is a school student)