

Knowledge-based economy and union budget 2021-22

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The world is going through an unprecedented global pandemic, and not even a single country is out of that. It has become a health care crisis that is transformed into an economic and a social situation. Precisely, the COVID-19 has an impact more on economics than on the health of the people.

Even though the pandemic's impact on economic and social issues is tremendous, I am concentrating on education and skills, where we know that there are many challenges. Over the last year, the various sections of the students - primary, secondary or tertiary education - there has been a loss of opportunity in learning. As remote or virtual learning has become the rule of the day, a significant challenge is due to the vast digital divide in countries like India. As the feeding programs have been stopped in schools, lakhs of students got affected in terms of nutrition, and many others dropped off even in the tertiary sector. On the other hand, many opportunities emerged in the form of different online education models. New learning strategies have been developed in a very short time, and a lot of web-based products have come out. Likewise, in the case of skills, a lot of challenges have been brought out, the most prominent being the skill gap. People may need multiple skills, and they may have to concentrate on multiple careers than focus on one career.

The Knowledge-Based Economy (KBE) is the latest stage in the development of modern societies. The concept of the knowledge-based economy is that an economy where knowledge is the main engine of economic growth. This new phase of development is built on human knowledge, skills, information, and technology. The budget speech, as well as the economic survey, is stemmed from the importance of quality education, skill up-gradation,

and innovation for imminent development. The future of a country like India is here envisioned upon knowledge, which is an intangible asset.

Knowledge-based Economy can be defined as an economy where the production, distribution, and use of knowledge is the primary driver of growth, wealth creation, and employment across all industries (OECD 1996, APEC 2000). The Knowledge Workers are those "Workers will require the ability to create, analyze and transform information and to interact effectively with others.... Learning will increasingly be a lifelong activity" (Alan 2000). They can create, distribute and exploit knowledge is increasingly central to competitive advantage, wealth creation, and better standards of living (OECD (2001)).

In the Economic Survey 2021, the eighth chapter is titled "Innovation: Trending Up but needs thrust, especially from the Private Sector." India entered the top 50 innovating countries for the first time in 2020. According to the Global Innovation Index (GII), India ranked at 81 in 2015 but 48 in 2020. Among the seven pillars of the GII, India stands at 27th in knowledge and technology outputs (KTO), 31st in market sophistication, 55th in business sophistication, etc. Among the sub-pillars 10th in knowledge diffusion, 15th in trade, commerce, and market scale, 1st in ICT services exports, and so on. On the flip side, India ranks 107th on education sub-pillar, 118th on the pupil-teacher ratio in secondary education, 115th on new business per thousand population in ages 15-64, 108th on tertiary inbound mobility, 108th on ICT access as well as ICT use, 105th on ease of starting a business, 101st on females employed with advanced degrees. On the larger side, being the 5th largest economy, India aspires to compete on innovation with the top ten economies. Research and Development is concerned, the government is heavy-lifting on R&D with 56% of the gross expenditure on R&D. India's gross expenditure on R&D at 0.65% of GDP, Indian government sector contributes the highest share of total R&D personnel (36%) and researchers (23%) amongst the top 10 economies (9%). India must significantly ramp up investment in R&D if it is to achieve its aspiration to emerge as the third-largest economy in terms of GDP current US\$.

Reinvigorating Human Capital is 4th Pillar in the Union Budget 2021-22. For school education, the budget says that more than 15,000 schools will be qualitatively strengthened to include all components of the National Education Policy. They shall emerge as exemplar schools in their regions, handholding and mentoring other schools. 100 new Sainik Schools will be set up in partnership with NGOs/private schools/states. In the case of higher

education, setting-up up the Higher Education Commission of India is going to be a reality which is an umbrella body having four different vehicles for standard-setting, accreditation, regulation, and funding. In the case of skilling, in 2016 - the National Apprenticeship Promotion Scheme is launched. It is proposed to amend the Apprenticeship Act to enhance apprenticeship opportunities for our youth further. It is also proposed to realign the existing scheme of the National Apprenticeship Training Scheme (NATS) for providing post-education apprenticeship, training of graduates and diploma holders in Engineering with an outlay Rs. 3,000 crores. for Innovation and R&D, the finance minister has announced the setting up of the National Research Foundation in 2019. Not she says that the government has worked out the modalities, and the NRF outlay will be of Rs 50,000 crores over five years. The budget also ensures that the overall research ecosystem of the country is strengthened with a focus on identified national-priority thrust areas. The setting up of the National Language Translation Mission (NTLM) will enable the wealth of governance-and-policy-related knowledge on the Internet to be made available in major Indian languages.

To make a quick appraisal of the budget, we have to first look at the very meaning of the word used in the budget: reinvigorating. That means "to make someone feel healthier, and more energetic again" (Cambridge dictionary). Especially in the context of COVID and the context of a weakening economy over one or two years, we expected suggestions based on diversification, digitalization, E-Governance, Professionalism, and so on. In that context, this budget is quite depressing and found to be unimaginative. The 'new normal' is the word of the day, and the unskilled/untrained people working in the various fields lead to low productivity, and the commoner bears the entire cost. Nowadays, technology becomes indispensable for any area, whether Processing, Production, Service, and Delivery. Employability of the youth to be enhanced by improving today's various skills: industry 4.0 skills, digital skills, life skills, language skills, functional skills, domain skills, and fintech skills.

Hence, the policy frameworks are to be triggered to make waves in the economy. New tools and policy mixture are needed for the long-term human capital investment as they are having a long gestation period. In most cases, the trickling down takes time, and the base slips to negative. In the bleak pandemic scenario, humanity must be brought into the more prominent front - not the commercial interest. So life long learning must be encouraged, and

borderless/seamless envisioning is needed to enhance the country's knowledge-based economy.