

Role of Lifelong Learning in Emerging Knowledge Economy in India

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A person who cannot read instructions, understand the demand of accuracy, and follow the demands of specifications is at a great disadvantage in getting a job in today's globalizing world. ... Widespread participation in a global economy would have been hard to accomplish if people could not read or write, or produce according to specifications or instructions (Amartya Sen, 2001).

Lifelong learning is an essential part in the community development process, where community members acquire their life skills, soft skills and vocational skills throughout their lifespan to take part in their social, cultural, vocational and professional life. Lifelong learning is considered as an intervention tool for socio-economic empowerment in a globalizing world to stay ahead in a competitive world with knowledge superiority. Lifelong learning is especially important in the context of changing global economy where knowledge-based economy supersedes other forms of economy such as agrarian economy and industrial economy, in terms of economic power of the nation and socio-economic empowerment of citizens. Amartya Sen justifies the notion of economic empowerment of people through the participation in continuing education until workforce attains certain levels of accuracy, understands job specifications and follows instructions.

In his book *The Third Wave*, Alvin Toffler divided history of the evolution of human society into three major eras, or waves. The first wave, from 8000 BC to 1750 AD was termed the

agricultural revolution, and was based on farming as the world's primary occupation. In the second wave, from 1750 to 1955, the rise of industrial civilization and the industrial revolution marked the main occupation. The developed world was engaged in or moving toward mass production of industrial goods. The third wave, which began in the mid-1950s, is sometimes referred to as the information age and is based on the delivery of services. Important point to note from Toffler's viewpoint is that all the societies were profoundly transformed with each wave, and that the transition from one to the next was never easy.

What Toffler envisaged three decades ago, we can see it today in the proliferation of knowledge-based industries as well as service industries not only in developed countries but also in developing countries such as India, China, Malaysia and South Korea. Advanced countries such as the United States of America, United Kingdom, Japan, Denmark and Germany were ahead in third wave, which started after the World War II. Many knowledge-based industries emerged in these developed countries due to concerted efforts of advanced research, development and entrepreneurships. These nations nurtured talents and attracted creative and visionary people to establish knowledge-based economy. That is, the enterprises, which have superior knowledge resources, have tremendous growth opportunities in global markets and certainly have edge over others. They became the trend setters and are followed by many others. In the transition to the information/knowledge based society, two aspects are important – development of ICT infrastructure for information accessibility and lifelong learner citizen. If the large number of citizens becomes lifelong learner, they will be capable to utilize a considerable amount of information and learning resources for the generation of wealth and welfare of the society. They can be a driving force in demanding adequate information infrastructure in the country and learning atmosphere in the workplace. The lifelong learning can also play a major role in enhancing employability of fresher graduate students of a developing country, who do not have necessary soft and technical skills due to limitations in university curricula.

Indian Society in Transition

The knowledge-based economy is in existence in advanced countries for a long time, whereas the emerging economies, popularly known as BRICS (Brazil, Russia, India, China and South Africa), are also very keen to establish knowledge-based economy utilizing their huge talent pools, entrepreneurial capabilities and improved infrastructure. Thus, knowledge-based economy

is not a distant dream for India, like some other emerging economies. The impact of third wave in the emerging economies is expected much greater than the other two.

In India large-scale industrial growth started few decades ago mostly after independence. India's first Prime Minister Jawaharlal Nehru had futuristic vision to build-up a self-sufficient nation. He also initiated many science and technology institutions and research centres for making the nation superior in scientific and technological knowledge. In 1980s Indians also witnessed the green revolution, which made India self-reliant in food grains. In early 1990s India had reformed her economy to the tune of globalisation and liberalization to attract foreign direct investments in India and to explore world markets of Indian products and services. Though first two waves came in India very lately, the third wave has already knocked the doors. But it is very limited to a few privileged states in India, particularly centred on metropolitan cities, which have basic infrastructure to host the knowledge-based industries. Now, the transitional Indian society produces success stories of knowledge-based industries in every corner of the country.

Recent economic reports of the Government of India show that the percentage share of GDP from service sector has already been doubled than industry sector, whereas agriculture sector is continuously reducing its GDP contribution in contrary to its largest manpower engagement. The knowledge processing industries, IT and IT-enabled services industries are the key contributor for service sector. The Government of India provides supports to each state government to establish knowledge-based industries by promoting software technology parks, biotechnology parks, export-processing zones, special economic zones and so on, beyond the metro cities.

In a knowledge-based society, knowledge itself becomes the factor of productions, and plays a central role in driving economic and social development. In a knowledge economy, the knowledge-driven industries have much higher economic growth, both in terms of volume and revenue, than manufacturing industries and agriculture. This segment also requires intellectually motivated, creative, competitive decision makers who will enable the knowledge organizations to achieve their accomplishments. This workforce uses knowledge resources judiciously, rationally and adequately to pursue their professional goals, organizational goals and social goals. The utilization of knowledge resources can be habituated and sensitized through the lifelong learning programmes, which are available in the forms of workplace learning, continuous professional development, refresher courses, orientation programmes, open learning,

distance learning and e-learning. The lifelong learning is required at every stage and sphere of a person's life, starting from the school education to higher education, from social life to professional life.

Learning is a lifelong process that starts at the youth age and may go until post-work age. The formal, non-formal and informal ways of learning are circled around a person's life, where the person acquires new sets of knowledge of his/her interests, updates his/her existing knowledge on his/her area of interests. Lifelong learners acquire knowledge, and then utilize knowledge resources to generate wealth and welfare. In post-work life, persons share their wisdom and experiences with the younger generations. Here also informal learning takes place to absorb the knowledge from experienced persons to and use the same knowledge in generating wealth and welfare of the society. This is a continuous cycle of knowledge creation, dissemination and utilization.

With the emergence of knowledge-based industries, digital divide in India seems to be a bottleneck in providing information infrastructure and adequate manpower supply, necessary for this sector and supporting sectors, although the country has made substantive progress in this area. Thus, the policy makers and social scientists are adopting various frameworks to address the digital divide in India for achieving overall economic growth. Information and Communication Technologies (ICT) is being used worldwide as a tool for social welfare, better governance, illiteracy eradication and poverty removal. The ICT is also being used as an intervention tool for empowering certain social groups such as farmers, women, craftsmen, and common citizens. In India, ICT is also adopted at the grass root level through various initiatives and pilot projects on experimental basis. The private public partnerships have been established across India, where many corporate organizations are collaborating with non-governmental organizations (NGOs), local self-help groups and local governments for various social development and social welfare programmes out of their 'social outreach' and 'corporate social responsibility' mandate. Many national and international developmental and funding agencies are also collaborating with grass root level NGOs, volunteering societies to address digital divide in India. Government of India and state governments are also taking appropriate steps in sustaining economic growth, employment generation and strengthening information infrastructure.

Role of National Knowledge Commission of India

The National Knowledge Commission (NKC), a recent initiative of the Government of India, is a concerted approach in making India as a major economic power in the global scenario. The NKC also provides adequate inputs for action to achieve the goal of knowledge society. NKC aims at establishing a knowledge-oriented paradigm of development and to address the digital divide in India. NKC was established in June 2005 with following objectives:

- To build excellence in the lifelong and formal educational systems to meet the knowledge challenges of the 21st century and increase India's competitive advantage in fields of knowledge.
- To promote creation of knowledge in S&T laboratories.
- To improve the management of institutions engaged in intellectual property rights.
- To promote knowledge applications in agriculture and industry.
- To promote the use of knowledge capabilities in making government an effective, transparent and accountable service provider to the citizen and promote widespread sharing of knowledge to maximize public benefit.

NKC has five distinct focus areas:

(i) Access to Knowledge: Providing access to knowledge resources through strengthening information infrastructure and networks; promoting and adopting open access literature, open learning resources, open courseware and open source software.

(ii) Knowledge Concepts: Nurturing intellectual capabilities and enhancing professional and vocational skills of youths through a systematic approach to lifelong learning.

(iii) Knowledge Creation: Making self-sufficiency in knowledge creation; strengthening indigenous research capabilities in science, technology and medicine (STM) areas; generating knowledge for social development.

(iv) Knowledge Application: Deriving maximum benefits from intellectual assets, applying knowledge in fields like agriculture, industry, health, education, etc. where productivity can be enhanced.

(v) Knowledge Services: Making governance and government functionaries more accountable, transparent, efficient and sensitive to the causes of common men.

NKC has recently come up with some bold recommendations for harnessing the potential of lifelong learning to promote a people-centred and inclusive knowledge society in India. It has recommended certain frameworks for achieving quality education for all through a wide-spread lifelong learning system in the country.

NKC is also advocating open courseware and open learning resources for sharing intellectual capitals of elite institutions in India to supplement lifelong learning systems in India. For example, Government of India has initiated a programme called 'National Programme on Technology Enhanced Learning' (NPTEL). This is an open courseware initiative by seven Indian Institutes of Technology (IITs) and the Indian Institute of Science (IISc). The main objective of this programme is to enhance the quality of engineering education in the country by developing more than 200 curricula-based video and web courses. Premier institutions of India are participating in this innovative programme for the production and dissemination of quality courseware in the areas of engineering and technology. Already a number of open courseware is now available through its website. The video courses are at first broadcasted through the Eklavya Technology Channel – a technical education channel for television. This programme addresses harmonization of engineering curricula across the country, refreshing knowledge of technical teachers/students as well as the shortage of quality teaching faculty at the second and third tier (i.e., government-supported and self-supported) institutions. This open educational resource supplements the lifelong learning process of individuals who want to catching up and brushing up their knowledge.

Information Literacy and Lifelong Learning

Information literacy is a set of learning skills which enable a lifelong learner to effectively cope with massive amounts of information, from a variety of media formats, such as, books, journals, magazines, newspapers, audiovisual sources, scholarly databases, and Internet. These skills include the ability to understand how to find the information he wants and how to determine the 'best' information for his needs. Information literacy is a tool for promoting lifelong learning. It is

common to all learning environments, especially lifelong learning environment where learners become more self-directed, and assume greater control over their own learning. The Information Literacy Standards, as adopted by the national and international library associations, assume that an information literate individual is able to:

- Determine the extent of information needed;
- Access the needed information effectively and efficiently;
- Evaluate information and its sources critically;
- Incorporate selected information into one's knowledge base;
- Use information effectively to accomplish a specific purpose; and
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

Information literacy of lifelong learners can enhance the capabilities of a nation for optimum utilization of knowledge resources. It can also make creation and generation of new knowledge a reality. To derive maximum benefits from intellectual assets, to enhance the productivity in different social sectors, and to make public functionaries more accountable and transparent, coherent knowledge dissemination to the society are the needs of the hours where lifelong learners have much more to contribute. Thus, information literacy component in lifelong learning system is needed to achieve these societal goals.

Community Learning Centres in India

Community learning centre (CLC) is a kind of lifelong learning facilitation centre at the community level where adult literacy programmes are organized. This centre also imparts life, vocational, soft and entrepreneur skills to the community members with the help of local bodies, non-government organizations, self-help groups and voluntary societies. ICT components may be embedded in CLCs to enhance access to learning resources available in the digital environment. A.P.J. Abdul Kalam, former President of India, has coined a new term PURA (Providing Urban amenities in Rural Areas) that describes coherent knowledge and resources distribution across the country. PURA delivers knowledge connectivity by establishing community learning centres or similar other centres across the country for facilitating formal,

informal and non-formal education at the community level. Government of India and in collaboration with some development agencies has initiated to set up village knowledge centres, community information centres, and common service centres across the country to improve the connectivity and access to public information. All these knowledge centres can supplement functions of community learning centres at large. These centres along with other related information centres such as community multimedia, rural libraries and community radios can improve access to lifelong learning at the community level, where relevant and customized lifelong learning modules can be developed based on local needs.

Conclusion

In the wake of knowledge-driven development of societies in India, some institutional and policy frameworks for lifelong learning have been planned to bridge the knowledge gaps between university curricula and corporate practices. But, lifelong learning should also be designed to bridge knowledge gaps between information rich and information poor citizens, particularly for the citizens who cannot afford formal education due to socio-economic backwardness. The urban and rural societies can be integrated through another range of lifelong learning initiatives that empower the common citizens with the decision making skills for their vocational, social, intercultural and personal life. The National Knowledge Commission has rightly identified the specific areas where focused interventions can be planned to make every productive Indian citizen a lifelong learner for continuous improvement in his vocational life. Participation in democracy is also another outcome of lifelong learning, where stakeholders are empowered to participate in bottom-up or holistic policy making process. International frameworks for lifelong learning can be adopted in a developing country like India that aims at becoming a knowledge society, where knowledge utilization and knowledge creation capabilities are the driving force in economic and social development.

References

1. Abdul Kalam, A.P.J. (2005). Address to the nation by the President of India Dr. A.P.J. Abdul Kalam on the eve of 56th Republic Day [Online]. Available at: www.presidentofindia.nic.in
2. Association of College and Research Libraries (2000). Information Literacy competency standards for higher education. Available at: <http://www.ala.org/acrl/ilconstan.html>
3. National Knowledge Commission (2006). Report to the Nation 2006. New Delhi: National Knowledge Commission. Available at: <http://knowledgecommission.gov.in/report2006/>
4. Sen, Amartya (2001). Reflections on Literacy. In: *Literacy as Freedom: A UNESCO Round-Table*. Paris: UNESCO Publishing.
5. Toffler, Alvin (1980). *The Third Wave*. New York: Bantam Books.