

VOCATIONAL EDUCATION & SKILL DEVELOPMENT IN INDIA THROUGH ICT

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Abstract

Vocational education consists basically of practical courses through which one gains skills and experience directly linked to a career in future. It helps students to be skilled and in turn, offers better employment opportunities. Time management and meeting deadlines play an important role in success in a vocational course. The education system should produce the skilled manpower rather than just the degree holders. Information and Communication Technology (ICT) are increasingly becoming an integral part of the education system. ICT has changed the style of functioning of the educational system and the judicious use of these technologies will prove to be an asset for generating skilled manpower. This paper highlights various impacts of ICT on contemporary higher education and also discusses potential future developments.

Keywords: *Globalization, skilled manpower, Skill, employment, IT enabled services.*

I call upon the nation to take a pledge to make India the Skill Capital of the World is the call given by the Honourable PM of India on 15th July, 2015 while addressing the nation on World Youth Skills Day. He emphasized upon the need of skilled manpower and the pivot role which a skilled person can play in the development of Indian economy. The dream of generation of skilled manpower can be materialized only with the joint efforts of educators, entrepreneurs and the government policies.

Vocational, or skills-based, education is becoming more and more important today, with many employers expecting new employees to have all the practical skills they need to start work and also for those who have to support their families immediately after senior secondary education. Vocational courses are typically more practical and skills-based than academic degrees, but they are often taught at universities as well as colleges and technical institutes. Vocational Education and Training (VET) is an important element of the nation's education initiative. Vocational education has to be viewed from different multi-layered practices. One is of course the hands on training component. The Information and Communication Technology has permeated in every walk of life affecting the technology fields such as launching satellites, managing businesses across the globe and also enabling social networking. The convergence of computer, communication and content technologies, being known as ICT, has attracted attention of academia, business, government and communities to use it for innovative profitable propositions. The higher education in India has seen the massive growth in post-independence era. At the time of independence 17 universities and about 400 colleges were there in India and today 520 universities, nearly 22,000 colleges, over 10 million students, 0.45 million teachers and one of the largest higher education system in the world. Our education system focuses on creation of high quality and well trained human resources to fulfill the need of ever growing Indian economy, but on other hand

it face challenges at operational level. ICT has changed the way of imparting education in modern era and it has played a great role in strengthening the three traditional branches that make up the mission of higher education i.e teaching, research and service to the society. ICT has changed the style of functioning of the educational system and its governance with the help of digital data, its storage, retrieval, manipulation and transmission. ICT works in three ways: - (i) communication and decision implementation, (ii) automating tedious task, and (iii) supporting new and existing tasks and processes. Use of ICTs can process information, create knowledgebase and make them available wherever and whenever necessary. Information and Communication Technologies (ICTs) in most cases have tremendous success in providing services at reduced costs to the people's door steps. ICTs have the same to do for making the higher education available to all classes of people throughout the country at a lower cost.

The ICT development can also play a pivot role in generating the skilled manpower. Year by year it is becoming simpler to use devices such as desktop, palm top, iPod etc. The Indian information and communication technology (ICT) industry has witnessed excellent growth in the past two decades. Capitalizing on its advantages of talent pool, lower cost of operation and the innovative remote delivery model, India has established itself as a global leader in the ICT sector. ICT can be broadly viewed under two sectors, information technology (IT) and Communication. India is one of the fastest-growing IT markets in the world. The rapid emergence of Indian IT sector has played a significant role in transforming India's image from a slow moving bureaucratic economy to a land of innovative entrepreneurs. More recently, online retailing, cloud computing, data mining, Big data and e-commerce have emerged as the major growth drivers in the sector. The market size of information technology in India is expected to touch US\$ 50 billion in 2015 as compared to US\$ 35.1 billion in 2012, as per International Data Corporation (IDC).

The National curriculum framework 2005 (NCF 2005) has also highlighted the importance of ICT in school education. With this backdrop, major paradigm shift is imperative in education characterized by imparting instructions, collaborative learning, multidisciplinary problem-solving and promoting critical thinking skills

According to Blurton : **ICT is defined** as "diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information". Technologies included in ICTs are: Radio and Television (broadcasting technology), Telephony, Computers, and the Internet.

ICT in higher education is being used for developing course material; delivering content and sharing content; communication between learners, teachers and the outside world; creation and delivery of presentations and lectures; academic research; administrative support, student enrolment.

According to the International Labour Organisation (ILO) "**Skills development** is of key importance in stimulating a sustainable development process and can make a contribution in facilitating the transition from an informal to formal economy. It is also essential to address the opportunities and challenges to meet new demands of changing economics and new technologies in the context of globalization."

ICT can be used as a tool in the process of education in the following ways:

1. Informative tool: It provides vast amount of data in various formats such as audio, video, documents.

2. Situating tool: It creates situations, which the student experiences in real life. Thus, simulation and virtual reality is possible.

3. Constructive tool: To manipulate the data and generate analysis.

4. Communicative tool: It can be used to remove communication barriers such as that of space and time (Lim and Chai, 2004).

ICT-based higher education is popular to those who want flexibility in the learning process so that one can do both study and work together. The study reveals that respondents find ICT-based higher education in terms of technical support is quite adequate. Quality of higher education can be maintained through ICTs means in comparison with face to face conventional learning. The outcome of each technology varies according to how it is used. Delivery of instruction and its reception by learners, online course materials, for example, may be accessed 24 hours a day, 7 days a week. ICT-based education can be offered regardless of time and space. ICTs are a potentially powerful tool for extending educational opportunities, both formal and non-formal, each of the different ICTs—print, audio/video cassettes, radio and TV broadcasts, computers or the Internet.

As, the use of ICT will be of great help in higher education, but now a days the need of the hour is to generate the skilled manpower, not just the degree holders. Skill can be in production, manufacturing, agriculture, industry, education and in all the fields. The need of the hour is to think on these lines, wherein the universities should come up with skilled based courses. The Indian government has also realized the need of skilled based education. Prime Minister Shri Narendra Modi has initiated the wave of Skill India and Make in India, where he has emphasized on generation of products in India by skilled manpower of India only. He has unveiled the Skill India logo and launched four landmark initiatives of the Ministry of Skill Development and Entrepreneurship: National Skill Development Mission, National Policy for Skill Development and Entrepreneurship 2015, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) scheme and the Skill Loan scheme.

The Skill India logo depicts a clenched hand in which a spanner and pencil are firmly held, exemplifying the empowerment of the individual through skilling. The spanner and pencil are held together, suggesting that both skill and general education are at parity and aspirational for India's youth. The tagline, 'Kaushal Bharat, Kusal Bharat' suggests that skilling Indians ('Kaushal Bharat') will result in a happy, healthy, prosperous and strong nation ('Kushal Bharat.')

The Skill India Logo depicts a clenched hand, in which a spanner and pencil are firmly held. The strong depiction of the hand exemplifies empowerment of the individual through skilling.

•The spanner, also known as 'Chabbi' in colloquial Hindi, symbolizes the role that skill plays in unlocking human potential. It is also a universal tool used across many trades, including by plumbers, auto-mechanics, and electricians and in a wide range of manufacturing jobs. The pencil represents service sector skills and is also used in general education.

•The spanner and pencil are held together. Their juxtaposition puts skill and general education at parity, suggesting both can empower individuals and are aspirational for India's youth.

•A rising sun is shown as a backdrop to the clenched hand, alluding to the role of skills in the rise of India as a nation. The use of arrows in 'Skill' suggests upward mobility through skilling.

•The logo is placed on a computer screen, highlighting Skill India as a gateway to sophisticated jobs in advanced sectors and the *great potential of using technology in skilling*.

•The tagline, 'KaushalBharat, KushalBharat' suggests that skilling Indians ('KaushalBharat') will result in a happy, healthy, prosperous and strong nation ('KushalBharat').

The Ministry of Ministry of Skill Development And Entrepreneurship is responsible for co-ordination of all skill development efforts across the country, removal of disconnect between demand and supply of skilled manpower, building the vocational and technical training framework, skill up-gradation, building of new skills, and innovative thinking not only for existing jobs but also jobs that are to be created.

ICT can play a pivot role is generation of skilled manpower by providing various opportunities at the door step of the learners and hence they can grow better. Due to its availability 365*24*7 for all walks of life, it can help anyone to grow and excel in the area of their interest. The skilled manpower will be more employable. The technology will help the skilled persons to do their jobs in a better sophisticated and productive way. The main aim is to increase the productivity and employability of employees both in the organized and unorganized sectors. These changes have caused educational institutions, administrators, teachers to rethink their roles. The society should also put efforts to come out of stereo typed thinking and to consider these skilled based courses at par with the other most sort after courses. It is the time when we should also work to realize the motto of Make India and it will be possible only if we have skilled manpower at every level of production so that our dependency on the other countries should reduce and India can become self dependent in all the spheres.

BENEFITS OF INTEGRATING ICT FOR SKILL DEVELOPMENT: The adoption and integration of ICTs in education have a positive impact on teaching, learning, and research. In addition, it increases flexibility; provide the rich environment and motivation for teaching learning process which have a profound impact on the process of learning by offering new possibilities for learners and teachers. These possibilities can have an impact on student performance and achievement. The various benefits of ICT in education to various stakeholders are summarized as follows:

(a) **To Student** • Increased access, • Flexibility of content and delivery, • Combination of work and education, • Learner-centred approach, • Higher quality of education and new ways of interaction.

(b) **Employers** • High quality, cost effective professional development in the workplace, • Upgrading of employee skills, increased productivity, • Development of a new learning culture, • Sharing of costs and of training time with the employees, • Increased portability of training.

(c) **Governments** • Increase the capacity and cost effectiveness of education and training systems, • To reach target groups with limited access to conventional education and training, • To support and enhance the quality and relevance of existing educational structures, • To ensure the connection of educational institutions and curricula to the emerging networks and information resources, • To promote innovation and opportunities for lifelong learning.

Conclusion:

The skills development initiative will definitely support the employment creation, economic growth and social development process. Skill development policy will be an essential part of comprehensive economic, labour, social policies and programmes. ICT has enabled us to monitor and evaluate what is learned, how it is learned and when and where learning took place. The ICT based Skills Development will create a workforce empowered with the necessary and continuously upgraded skills, knowledge and internationally recognized qualifications to gain access to decent employment and ensure national competitiveness in the dynamic global market.

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