

Importance of Technical Education in Entrepreneurship and Agriculture in India

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Abstract - Technical graduate unemployment is a big issue in India. The lack of skills and innovation leads to poverty and dependent economy. One sure way of reviving the economy is to include technical education into entrepreneurship and agriculture by which skills, discoveries and innovations shall be converted into goods and services in the marketplace. With the advancements in technology, including sensors, devices, machines, and information technology, modern farms and agricultural operations work in a much different way than those a few decades ago. Today's agriculture routinely uses sophisticated technologies such as robots, temperature and moisture sensors, aerial images and GPS technology. These advanced devices and precision agriculture and robotic systems allow businesses to be more profitable, efficient, safer, and more environmentally friendly. Enormous benefits are derivable from technical education in entrepreneurship and agriculture including self-employment, employer of labor, poverty eradication, and reduction of capital flight among others. For the purpose of this study, secondary data was used by reading documents. The aim of this paper is to persuade education authorities, policy makers, financial institutions and entrepreneurs to adopt an integrated approach. The paper posits that urgent steps are needed to enhance technology in entrepreneurship and agriculture.

Keywords: Technical education, Entrepreneurship, Agriculture, India

INTRODUCTION

According to the All India Council for Technical Education, more than 60% of the eight lakh engineers graduating from technical institutions across the country every year remain unemployed.

[1] When technical education is used for entrepreneurship and agriculture it give rise to innovation, production, creates jobs, balance regional development, enhances growth in gross domestic product (GDP) and per capita income, increases standard of living, increases exports and community development. India's Ministry of Micro, Small & Medium Enterprises (MSME) sector, comprised of 36 million units that provide employment for more than 80 million people, now accounts for over 37% of the country's GDP. Each new addition to these 36 million units makes use of even more resources like land, labor and capital to develop products and services that add to the national income, national product and per capita income of the country [2]. This growth in GDP and per capita income is again one of the essential goals of economic development.

ENTREPRENEURSHIP

Entrepreneurship is the process of designing, launching and running a new business, which is often initially in a small scale. An enterprise is a project, an undertaking, a company, a firm or an individual that is engaged in one form of economic activity or the other, with the aim of producing some goods or services for sale to others [3]. An entrepreneur is a person who has the special ability to turn an opportunity into profit by assembling resources – finance, labor, technology, facilities, machinery, and information to produce products and services at a cost substantially below the price for which they can be sold in a competitive market [4]. Entrepreneurship has been described as the "capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make profit".

TECHNICAL ENTREPRENEURSHIP

Engineers, technologists, technicians and craftsmen are experts in their various areas of studies. However, for these people to enjoy doing their own things, in their own way and in their own time (in order to be an entrepreneur) they require wide exposure to business ideas in order to exploit technology-driven market opportunities. This will lead to technical entrepreneurship [5].

SCOPE OF TECHNICAL EDUCATION IN ENTREPRENEURSHIP

The training of technical education benefits students and other individuals in various ways in order to translate skills, knowledge, innovations into goods and services to the marketplace. The rewards include:

- Incentive for ingenuity and creativity.
- Involvement in societal (economic) changes.
- Financial assistance from sponsor organizations or individuals.
- Self-employment and job creation

SCOPE OF TECHNOLOGY IN AGRICULTURE

In India, farmers find it difficult to take care of large fields and are often ignorant of specific problems arising from time to time with regard to irrigation, fertilizers, pesticide and harvesting which is evident from the high rate of suicide among farmers. In 2014, the National Crime Records Bureau of India reported 5,650 farmer suicides [6]. The highest number of farmer suicides was recorded in 2004 when 18,241

farmers committed suicide. The farmer's suicide rate in India has ranged between 1.4 and 1.8 per 100,000 total populations, over a 10-year period through 2005 [7].

The most common problems faced by farmers and agricultural institutions in India where there is a wide diversity of soil quality, water supply, weather and practice include excessive wastage and high cost. Using technology in agriculture, farmers may use the optimum quantities required and target very specific areas, or even treat individual plants differently. In addition, robotic technologies enable more reliable monitoring and management of natural resources, production, processing, distribution, and storage of crops. The benefits include:

- Higher crop productivity
- Greater efficiency and lower prices
- Safer growing conditions, safer foods, worker safety and less biomagnifications
- Reduced environmental and ecological impact

NATIONAL POLICIES IN INDIA FOR PROMOTING TECHNICAL EDUCATION AND ENTREPRENEURSHIP

The rise of unemployability of engineering graduates in India is alarming as referred earlier. But for the development of the country the government as well as other statutory bodies (public and private) has implemented various policies in different fields that include necessary data sampling and relevant schemes in order to overcome the current situation and enable technical education of India to be at par with the global standards. The two most highlighted ones are one by All India Council for Technical Education (AICTE) and by Indian School of Business (ISB).

All India Council for Technical Education (AICTE) promotes planned and coordinated development of technical education in the Country after ensuring World standards in the institutions through facilitating and enabling mechanisms. For enhancing technical education to a world-class and state-of-art level, AICTE has laid the framework that includes the following[8]:

- Development of high quality institutions thriving for academic excellence, innovation, research and patents;
- Networking of institutions for optimum resource utilization, knowledge dissemination and affordable education; thereby leading to industry-institution interaction;
- Inculcating entrepreneurship promoting technology forecasting and global manpower planning;
- Encouraging indigenous technology focusing on

non-formal education;

- Making Indian Technical Education globally acceptable;

Indian School of Business at Hyderabad (ISB)

has launched one Technology Entrepreneurship Program (TEP) is a one-year program offered by the Indian School of Business which is tailored specifically to build entrepreneurial orientation among young engineering students [9]. The idea is to imbibe "business" skills to engineering college students and orient them towards entrepreneurship by educating them with "soft" business skills. The primary goals of TEP are:

- Mentor and support students to launch their own ventures
- Provide an environment experience to create investable technology based startups by linking entrepreneurial and innovative behavior to education and career pathways.

A FEW INDIA'S EFFORTS AT PROMOTING ENTREPRENEURSHIP AND AGRICULTURE

The Government of India has taken special note of the fast declining situation of technical education and related pitfalls in the industry and lifestyle of individuals because of that, and in this regard has invited its citizens to be part of various schemes that are launched from time to time. Some of them include:

- Startup India
- Digital India
- Make in India
- Pradhan Mantri Kaushal Vikas Yojana (PMKVY)
- Kisan Call Center (KCC)
- Pradhan Mantra Krishi Sinchai Yojana(PMKSY)
- Rainfed Area Development Programme (RADP)

CONCLUSION

Countries capable of developing their productive workforce coupled with entrepreneurship skill can be termed truly developing, developed and independent. For practical economical growth of India the youth must imbibe proper technical education and research, and the farmers should be made aware of relevant technologies for better production. Government at all level should create the enabling environment required for integrating entrepreneurship, technical and vocational education. Indians urgently need to emulate an integrated approach and adopt measures to become a successful nation.

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