

# A Study On: Need To Reform The Skill Development Program In India

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## Abstract

In one of the most prominent reports presented by NITI Ayog on the employment scenario in India, concluded that increase in unemployment. Other agencies also shared their inputs on the same subject and found that lack of employability skills training is one of the main reasons for unemployment in India. The skill development programs are carried by almost every second institute/college/university in every corner of India, still the gap between the vacant positions and the needy graduates is increasing every day. The corporate houses are still searching for the right candidates and so, spending huge amount to find the competent and skilled employees. However, apart from classroom teachings, degree certificates and impressive percentage on mark sheet is not enough to get someone job. To be employable, one need to be well trained according to the changing need of corporate world especially the post-pandemic period. This review paper highlights the lacunas in the skill development program in India along with suggestive approaches to overcome this issue. The paper also explains the need to reform these traditional skill development program in order to implement practical employability skills programme, which can sustain in the modern era.

**Keywords:** Training, Development, Skill, Employability skills, job, corporate, India, Indian youth, Job industry, hiring, recruitment, HR,

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Date of Submission: 19-05-2023

Date of Acceptance: 29-05-2023

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## I. Background

Skill development in India has gained significant attention in recent years due to the government's focus on creating a skilled workforce to drive economic growth and development. The need for skilled workers is particularly crucial in industries such as manufacturing, IT, healthcare, and construction (Chenoy D. , 2019). The government of India has launched several initiatives to promote skill development in the country. The National Skill Development Corporation (NSDC) was established in 2009 to facilitate and coordinate the development of vocational training and certification programs across various sectors. In 2015, the government launched the Skill India campaign, aimed at creating a workforce of 500 million skilled workers by 2022 (Dr. Anand Prakash, 2016). The campaign includes various initiatives such as the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), which provides financial assistance and training to individuals seeking to enhance their skills (Dr. Deepa Gupta & Sugandha Agarwal, 2018). Additionally, the government has established Sector Skill Councils (SSCs) to develop industry-specific training programs and certification standards. These SSCs work closely with businesses to identify the skills required for various job roles and design training programs accordingly (Furtado, 2018). There has also been a push towards incorporating skill development into the formal education system in India. The National Education Policy 2020 emphasizes the importance of vocational education and encourages schools and colleges to offer skill-based courses.

The skill India campaign was launched in 2015 to train over 40 Crore people in India. The need to form such program is emerged from the population analysis, which shows that India is the youngest nation in the world with over 50% of the population in under the age of 30 (Maroof Maqbool, March 2019). The report

published in 2012 by World competitiveness yearbook estimates that by the end of 2025, India will have around 25-30% of the total global workforce. Hence there is significant need to develop the youth of India in terms of skill development to prepare for various sectors. The National Sample Survey Organisation (NSSO) defines that India will beat China by 2030 in the race to capture global outsource work and so, India need to prepare well according the changing technology and required skill set (Kasturi, 2021).

The Skill India campaign was established with sole objective to provide proper direction to the youth along with improved productivity, required skill training, knowledge of technological advancement and empowering individual workforce (Dr. Rajni Arora, March 2019). With the skill development programme, India is focusing to have the young workforce of 500 million by the year 2025 (Dogra, 2018). To achieve this objective, India has joined hands with World Bank and also formed s dedicated institution called the National Skill Development Corporation (NSDC) which is based on Public Private Partnership (PPP) model to be monitored by Ministry of Skill Development & Entrepreneurship (MSDE) (Kahlon, 2017). One more aspect to be noted here that the need to form the skill development programme is because of the report of Periodic Labour Force Survey (PLFS) states that only 2% youth gets the proper technical training and around 7% gets the employment ready training, which causes high impact on the unemployment ratio with losing big shot work order around the globe (Venkateshwarlu, 2016). The following figures elaborate that actual versus required numbers in terms of skilled people available in India as compared to required demand for skilled people in various sectors, which need to be identified and solved. Thus, this may be the main reason behind establishing and introducing Skill India program.

Sr. No.	Type of Industry	GAP (in Million)
1	Manufacturing Industry	103.1
2	Infrastructure	36.13
3	Auto Industry & its components	35.4
4	Textile & Garments	26.2
5	Transport & Logistics	17.9
6	Retail Industry	17.8
7	Healthcare & Pharma sector	14.2
8	Food Processing	12.7
9	Education & Skill development	9.9
10	Technological & IT	5.8

Source: NSDC

Thus, we can conclude that skill development program needs to be restructured in order to meet the industry requirements and generate the ground reality employment for the youth.

## **II. Literature Review**

A literature review on skill development in India reveals that the country faces a significant skill gap, and there is a need to reform the skill development programs to address the issue. Several studies have highlighted the importance of skill development in India's economic growth and emphasized the need for effective skill development programs to enhance the employability of the workforce (R D. Y., 2017). One of the significant challenges facing the Indian economy is the mismatch between the demand and supply of skilled workers. Several studies have pointed out that the lack of skilled workers has resulted in lower productivity, lower wages, and slower economic growth (Okada, 2012). Moreover, the literature shows that the traditional education system in India is not adequately preparing individuals for the job market, and there is a need to focus on skill-based education and training programs. A study by the National Skill Development Corporation (NSDC) found that only 2.3% of the Indian workforce has undergone formal skill training, highlighting the need to scale up the skill development programs in the country (Jamal, 2013). Several studies have emphasized the need for industry participation and collaboration in skill development programs. The industry can provide valuable inputs on the skills required for the job market, and their participation can help bridge the skill gap. For instance, a study by the Confederation of Indian Industry (CII) highlighted the need for industry-driven skill development programs to address the skill gap in India. In addition, the literature shows that technology and digital skills are becoming increasingly important in the changing job market. Several studies have emphasized the need to incorporate emerging technologies such as AI, Robotics, and IoT into skill development programs to prepare individuals for the jobs of the future. However, the literature review suggests that skill development is critical to India's economic growth and development, and there is a need to reform the skill development programs to address the skill gap (Yadav). The literature highlights the need for industry participation, scaling

up of skill development programs, and incorporation of emerging technologies to prepare individuals for the changing job market.

### III. The concept overviews

(Asha, 2016) Skill development refers to the process of acquiring new or improving existing skills, knowledge, and abilities through training, education, or practical experience. It involves learning how to perform specific tasks or activities that are relevant to a particular job or industry. Skill development can take many forms, including vocational training, apprenticeships, on-the-job training, and formal education programs (Pandey, January 2016). The goal of skill development is to enhance an individual's employability, productivity, and overall contribution to society. The concept of skill development refers to the process of acquiring and enhancing the skills and knowledge required to perform a particular job or task effectively (Johansson, 2004). Skill development involves a range of activities, including education, training, and work experience, aimed at improving an individual's capabilities and increasing their employability. Skill development is essential not only for individuals but also for the economy as a whole. A skilled workforce is essential for economic growth and development, as it contributes to increased productivity, innovation, and competitiveness (Agarwal, 2013). Moreover, skill development can help reduce unemployment and poverty, promote social inclusion, and support overall economic and social development.

"The process of identifying the skills gaps and imparting the required skills to individuals to make them employable and productive" - The National Skill Development Corporation (NSDC)

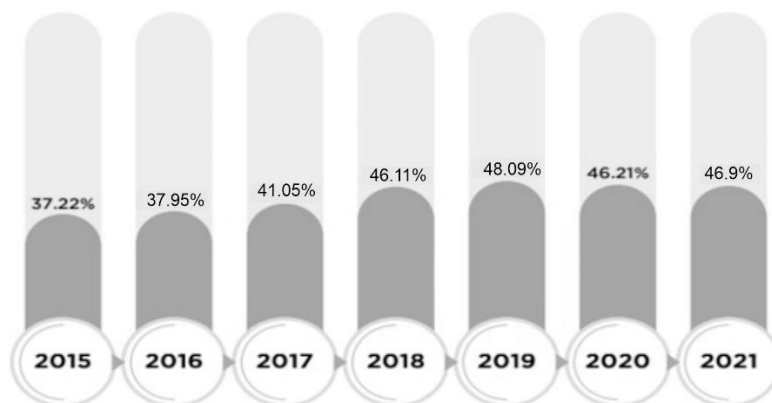
"The process of acquiring, developing, and improving competencies, capabilities, and knowledge that enable individuals to perform specific tasks and adapt to changes in the workplace and society" - The Organisation for Economic Co-operation and Development (OECD)

"The process of learning and acquiring knowledge, skills, and competencies that are relevant to a particular job, occupation, or profession" - The United Nations Educational, Scientific and Cultural Organization" - The United Nations Educational, Scientific and Cultural Organization (UNESCO)

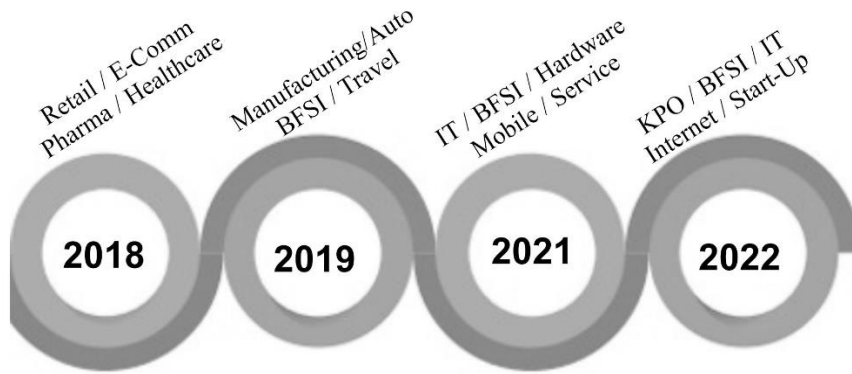
"The process of improving the knowledge, skills, and abilities of individuals to enhance their employability, productivity, and quality of work" - International Labour Organization (ILO)

#### Current Scenario

A study by the National Skill Development Corporation (NSDC) found that only 2.3% of the Indian workforce has undergone formal skill training, highlighting the need to scale up the skill development programs in the country.



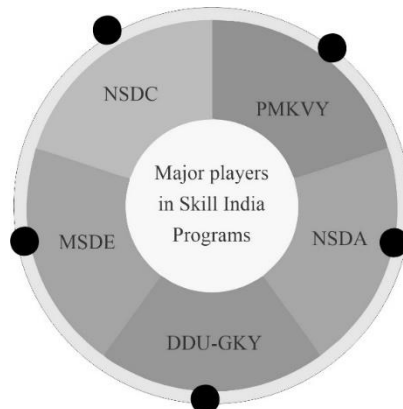
(Punjani) Highlighted the key skill development initiative by the Government is including establishing 1500 new ITI's through DGET (Directorate General of Training), establishing 50,000 skill development centres across India through DGET, setting up PM National Council on Skill Development and National Skill Development Coordination Board along with involving several other ministries in the skill development program including; Ministry of Textiles, Ministry of Rural Development, Ministry of Human Resource Development, Ministry of Urban Development, Ministry of MSME, Ministry of Food Processing Industries and so on. Still the issue remains same in the form of smooth coordination and strong operational command in keeping 20 separate ministries, 35 state government and union territories, internal and external agencies that are overlapping each other due to lack of effective power, coordination role and higher authority conflicts, which makes this project significantly under-resourced (S., 2022).



(Chhadwani, November, 2018) has elaborated the various schemes introduced by government in the skill development sector such as Deen Dayal Upadhyay Gram Kaushal Yojna (DDU-GKY), Deen Dayal Antyodaya Yojna (DAY-NULM), Directorate General of Training- Module Employable Skills (DGT-MES), Mahatma Gandhi National Rural Development Guarantee Act (NREGA), National Skill Development Co-operation (NSDC), National Skill Development Agency (NSDA) and Pradhanmantri Kaushal Vikas Yojna (PMKVY). (GOI, 2016) All these schemes have solid presentation on the paper but in the reality, the scheme paper itself shows the limitation of the operating procedure such as DDU-GKY is limited only up to 15 states of India (Employment, 2011). The DAY-NULM scheme is designed specifically for the skill development of street vendors, who are utterly busy in their day to day business activity and so, it makes them far from such training programs, the skill development programs offered by the DGT-MES is no different from these two as it only focuses on the school dropouts to be functionally trained to earn sustainable earnings (N, 2017). The agency may have the numbers data of school dropouts, but it is practically hard to reach such dropouts and convince them for the training programs. Whereas NREGA is offering 100 days of employment guarantee but later on the issue of employment remains unsolved and non-productive (Planning Commission, 2008).

Currently, (India, 2004) according to the National Skill Development Corporation (NSDC), the Indian government's flagship skill development initiative, Skill India, has trained over 5 million people as of 2021. As per the India Skills Report 2021, only 45.9% of Indian youth are considered employable, highlighting the need to bridge the skill gap in the country. (Ministry of Skill Development & Entrepreneurship, 2017-22) According to a report by KPMG, the Indian vocational education and training market is expected to grow at a CAGR of 8.4% between 2021 and 2025, driven by increasing demand for skilled workers across various industries. (India, Education, Skill Development and Labour Force., 2014) The Indian government has launched several initiatives to promote skill development in the country, including the National Skill Development Mission, Pradhan Mantri Kaushal Vikas Yojana, and the Skill India initiative. The Indian government has set a target of skilling 400 million people by 2022 under the Skill India initiative. Also, The NSDC estimates that India will require a workforce of 700 million skilled workers by 2022 to meet the demands of a growing economy (India, Second Annual Report to the People on Employment, 2011). Overall, the data on skill development in India highlights the need to address the skill gap in the country and increase the number of skilled workers to support economic growth and development. The Indian government's various initiatives to promote skill development in the country and the expected growth in the vocational education and training market indicate a positive trend towards addressing the skill gap in India (DK, 2017).

The following table illustrates programs of Government of India primarily targeted to enhance employability:



Ministry	Government Programs	Accomplishments
Ministry of Skill Development & Entrepreneurship	Pradhan Mantri Kaushal Vikas Yojana	8.70 lakh trained and 3.80 lakh employed
	National Apprenticeship Promotion Scheme	6.00 lakh Apprentices engaged
	Jan Shikshan Sansthan	1.60 lakh trained and 20,000 oriented as entrepreneurs
	Pradhan Mantri Yuva Yojana	11,154 trained and 6,000 oriented as entrepreneurs
	Skill Saathi	counselling done to 10 lakhs
Ministry of Rural Development	Deendayal Upadhyaya-Grameen Kaushalya Yojana	2.30 lakh trained and 1.30 lakh employed
	Rural Self Employment Training Institutes	41,323 trained and 8,776 connected to credit, 2,238 employed and 20,714 settled in self-employment
	Deendayal Antyodaya Yojana - National Rural Livelihoods Mission	42,572 trained and 40,000 employed
Ministry of Human Resource Development	Saakshar Bharat/Padhna Likhna Abhiyan	66.90 million benefited
	National Apprenticeship Training Scheme	4.20 lakh trained
Ministry of Minority Affairs	Seekho aur Kamao	67,000 trained and employed
	Nai Roshni	59,400 women benefited
	Upgrading Skills & Training in Traditional Arts/ Crafts for Development	16,200 trained
	Nai Manzil	20,100 trained
	Gharib Nawaz Skill Development Training for Minorities	11,930 trained
Ministry of Housing & Urban Affairs	Deendayal Antyodaya Yojana	1.10 lakh employed
Ministry of Textiles	Integrated Skill Development Scheme	2.80 lakh trained and 1.70 lakh employed
Ministry of Electronics & Information Technology	Skill Development in Electronics System Design & Manufacturing	96,477 trained and 66,261 employed

Source: Ministry websites, reports, and information released by Press Information Bureau.

### **Need to reform the skill development program in India**

India needs to reform the skill development program to address the skill gap in the job market and to create a skilled workforce that can contribute to the growth of the economy. India needs to reform the skill development program to address the skill gap in the job market, reduce unemployment, promote economic growth, meet the requirements of industries, and create job opportunities in rural areas (Chenoy, 2013). Reforms in the skill development program can create a skilled workforce that can contribute to the growth of the economy and improve the standard of living for the citizens. The following are some of the reasons why India needs to reform the skill development program:

**Skill gap:** Skill gap refers to the difference between the skills that employers require in their employees and the skills that are possessed by the job seekers. In other words, it is the gap between the demand for skilled workers and the supply of skilled workers in the job market. There is a significant skill gap in the Indian job market, with employers struggling to find skilled workers to fill job vacancies. The skill development program can bridge this gap by providing training to the youth and equipping them with the skills needed to meet the demands of the job market. Skill gap is a significant issue in many countries, including India (Swain, 2020). Employers often struggle to find skilled workers to fill job vacancies, leading to a situation where jobs remain vacant, and the unemployment rate remains high. The skill gap arises due to various factors, such as the lack of access to education and training, outdated education and training systems, and a mismatch between the skills taught in educational institutions and the skills required by the job market (IAMR, 2010). To bridge the skill gap, it is essential to have effective skill development program that provide training in the skills that are in demand in the job market. These programs should be designed in collaboration with industries to ensure that the training provided is relevant and up-to-date. Additionally, the quality of trainers and the training infrastructure should be improved to ensure that the training provided is of high quality. By bridging the skill gap, countries

can create a skilled workforce that can meet the demands of the job market, reduce unemployment, and promote economic growth (R, 2012).

**Unemployment:** Unemployment refers to the situation where individuals who are willing and able to work are unable to find suitable employment. It is a significant issue in many countries, including India. India has a high unemployment rate, particularly among the youth. The skill development program can help in reducing the unemployment rate by providing training and creating job opportunities for the youth. Unemployment can arise due to various factors, such as a lack of job opportunities, a mismatch between the skills possessed by job seekers and the skills required by employers, and economic downturns (Dash, 2020). High unemployment rates can have significant social and economic consequences, such as increased poverty, reduced consumer spending, and a decline in the standard of living. To address the issue of unemployment, it is essential to have effective policies and programs that can create job opportunities and provide the necessary training and skills development to help individuals secure employment. Skill development programs can play a crucial role in reducing unemployment rates by equipping job seekers with the skills required by employers. Additionally, programs that promote entrepreneurship and self-employment can also help in creating job opportunities.

**Economic growth:** Economic growth refers to an increase in the production of goods and services in a country over a period of time. It is a critical component of the overall development of a country and is essential for improving the standard of living of its citizens (Banerjee, 2018). In India, economic growth has been a major focus of the government, with the aim of making India a global economic powerhouse (Training, 2009). India has the potential to become a global economic powerhouse, but this can only be achieved by having a skilled workforce that can drive innovation and growth in various industries. The skill development program can help in creating a skilled workforce that can contribute to the growth of the economy (H, 2019). Skill development programs can play a vital role in promoting economic growth by creating a skilled workforce that can drive innovation and productivity in various industries. A skilled workforce can help businesses to improve their efficiency, develop new products and services, and increase their competitiveness in the global market (OECD, 1997). This, in turn, can lead to increased production, job creation, and overall economic growth. Additionally, skill development programs can help in creating a more entrepreneurial culture, with a focus on innovation and creativity. Entrepreneurs can use their skills and knowledge to start new businesses, create jobs, and drive economic growth. Skill development programs that focus on entrepreneurship can help individuals to develop the necessary skills and knowledge to start and run successful businesses. However, skill development programs can play a crucial role in promoting economic growth by creating a skilled workforce, driving innovation and productivity, and creating job opportunities. By promoting economic growth, skill development programs can help to improve the standard of living of citizens and make India a more prosperous and developed country.

**Industry requirements:** Industry requirements refer to the specific skills and knowledge that are required by employers in various industries. These requirements may vary depending on the industry, the job role, and the level of expertise required. The job market is constantly evolving, and industries require workers with updated and relevant skills. The skill development program needs to be reformed to ensure that they provide training that meets the current and future needs of the job market. It is essential to understand industry requirements when designing skill development programs (Agrawal, 2012). The programs should be designed in collaboration with industry experts to ensure that the skills and knowledge taught are relevant and up-to-date. This helps to ensure that individuals who complete the training have the skills and knowledge that are in demand in the job market, and are more likely to secure employment. Furthermore, skill development programs should also focus on providing practical training that simulates real-world industry scenarios. This helps individuals to develop the necessary skills and knowledge required to succeed in their chosen industry. For example, a skill development program for the hospitality industry may include training in customer service, food preparation, and housekeeping, among other things. It is important for skill development programs to stay up-to-date with industry requirements and adapt to changes in the job market. This ensures that individuals who complete the training are equipped with the most relevant and in-demand skills, and are better able to compete in the job market.

**Rural areas:** Rural areas are an essential part of India's economy and social fabric. However, they often lack adequate infrastructure, education, and healthcare facilities, leading to significant economic and social disparities between rural and urban areas. A significant portion of the Indian population lives in rural areas, where there is a lack of job opportunities and access to education and training (Vidhyadhar T. Banajawad & Dr.Mukta S Adi, 2020). The skill development program can help in addressing this issue by providing vocational training in trades such as agriculture and handicrafts, which can create job opportunities in rural

areas. Skill development programs can play a crucial role in reducing these disparities by providing individuals in rural areas with the necessary skills and knowledge to participate in the formal economy. Such programs can help to bridge the skill gap between rural and urban areas, increase employability, and promote economic growth in rural areas. Skill development programs for rural areas should be tailored to the specific needs of rural communities. For example, training programs could focus on developing skills in agriculture, animal husbandry, and other rural livelihoods. These programs could also include training in entrepreneurship and small business development, to help individuals start their businesses and create jobs in their local communities (Tamanna Joshi & Mukesh Pandey, 2018). Furthermore, skill development programs for rural areas should be accessible and affordable. This can be achieved by establishing training centers in rural areas, offering flexible training schedules, and providing financial support to individuals who may not have the means to pay for training. However, skill development programs can play a crucial role in reducing the economic and social disparities between rural and urban areas in India. Tailored programs that focus on the specific needs of rural communities, coupled with accessible and affordable training options, can help to bridge the skill gap and promote economic growth in rural areas.



### Global comparison of Indian skill development programs

When compared to other countries, India's skill development programs still have some room for improvement. However, India has made significant progress in recent years, and its efforts in this area have been recognized globally (Middleton, 1993). Here is a brief global comparison of Indian skill development programs:

<b>China</b>	China has a well-developed vocational education and training system, with a focus on developing skills for specific industries. The Chinese government has invested heavily in this area, and the country has a large network of vocational schools and training centers (Research). The Chinese government has made a significant investment in skill development programs. It has set up a number of institutions, including the China Education and Research Network (CERNET), the National Vocational Education and Training Committee (NVETC), and the Ministry of Education (MOE) to oversee the development and implementation of these programs (Run-Zhi Lai, 2011).
<b>Germany</b>	Germany is known for its dual education system, which combines practical training with classroom education. This system has been successful in developing a highly skilled workforce and is considered one of the best in the world. Germany has a dual education system which combines classroom education with practical training. This system is focused on developing skills for specific industries, and has been successful in developing a highly skilled workforce (Barabasch, 2008). The practical training is conducted in companies, where trainees work alongside experienced professionals. Also, German industries actively participate in the development of skill training programs, which ensures that the skills taught are relevant and in demand (Euler, 2013). Companies play a major role in developing the curriculum, and also provide the practical training for trainees.
<b>Singapore</b>	Singapore has a well-developed skills training system, with a focus on developing skills for the digital economy. The country has invested heavily in this area and has a large network of training providers, including private companies. Singapore is known for having a highly developed and efficient skill development system, which has played a key role in the country's economic growth and competitiveness (Kuruvilla, 2002). The system is focused on developing skills for specific industries and is built around a tripartite model, which involves the government, industry, and educational institutions. Singapore's skill development programs are focused on emerging technologies such as artificial intelligence, robotics, and data analytics (James, 2002). This is done to keep up with the rapidly changing technological landscape and to ensure that the workforce is equipped with the necessary skills to adapt to the changes.

<b>United States</b>	The United States has a diverse system of vocational education and training, with a mix of public and private providers. The focus is on developing skills for specific industries, and the government provides financial assistance to individuals who are pursuing training in high-demand fields. Community colleges play a major role in the US skill development system. These institutions offer vocational training programs in a wide range of fields, including healthcare, IT, and manufacturing. Community colleges work closely with local industries to develop programs that are relevant to the needs of the local economy. Also, The US government works closely with industry associations to develop skill development programs that are relevant to the needs of the industries. Public-private partnerships are common in the US, and are used to leverage the resources of both the government and industry to develop effective training programs.
<b>Japan</b>	Japan has a highly developed and efficient skill development system that is considered one of the best in the world. In Japan, there is a strong partnership between the government and industry to develop and implement skill development programs (Eichhorst W, 2012). This collaboration ensures that the programs are aligned with the needs of the industry and lead to better employability of the workforce. Japan places great importance on the quality of trainers and their qualifications. Trainers in Japan are required to undergo extensive training and certification before they are allowed to teach. Also, Japan has a strong culture of lifelong learning, and individuals are encouraged to continue learning and upskilling throughout their careers. The government offers various programs and initiatives to support lifelong learning.

Compared to these countries, India's skill development programs are still in the early stages of development. However, the Indian government has taken significant steps to improve these programs, with a focus on developing skills for emerging industries, improving the quality of trainers, increasing industry participation, and increasing the focus on vocational training. With continued effort and investment in this area, India has the potential to become a global leader in skill development.

### **Steps to be taken to reform the skill development program**

India has a huge workforce, and there is a need to reform the skill development program in order to enhance the employability and productivity of its citizens. However, reforming the skill development program in India is crucial for enhancing the employability and productivity of its citizens (Bank, 2008). The government should take proactive steps to align the skill development program with industry needs, focus on emerging technologies, improve the quality of trainers, increase industry participation, increase the focus on vocational training, provide financial assistance, and create a strong monitoring mechanism to ensure the effectiveness of the program (Desai, 2010). Some of the steps that can be taken to reform the skill development program in India are:

Aligning the skill development program with industry needs: The skill development program should be designed in a way that they meet the demands of the industry. The program should be designed after assessing the skills that are in demand in the market, and the training should be provided accordingly.

a) **Focus on emerging technologies:** India is rapidly evolving into a technology-driven economy, and there is a need to provide training on emerging technologies such as artificial intelligence, cloud computing, blockchain, etc. The skill development program should be designed to provide training on these technologies so that the workforce is future-ready. Focusing on emerging technologies is crucial for the skill development program in India as it will enable the workforce to be future-ready and equipped with the skills required for the jobs of the future. AI is rapidly transforming various industries, and there is a huge demand for professionals with skills in AI. The skill development program should provide training on AI to enable the workforce to develop skills in machine learning, deep learning, natural language processing, etc. Cloud computing is becoming increasingly popular, and there is a need for professionals who can manage and maintain cloud infrastructure. The skill development program should provide training on cloud computing to enable the workforce to develop skills in cloud architecture, cloud security, cloud migration, etc. IoT is revolutionizing the way we live and work, and there is a huge demand for professionals with skills in IoT. The skill development program should provide training on IoT to enable the workforce to develop skills in sensor technology, data analytics, IoT security, etc. Blockchain is being adopted in various industries, and there is a need for professionals who can develop blockchain-based solutions. The skill development program should provide training on blockchain to enable the workforce to develop skills in smart contracts, blockchain architecture, blockchain security, etc. also, With the increasing use of technology, there is a need for professionals who can ensure the security of digital systems. The skill development program should provide training on cybersecurity to enable the workforce to develop skills in network security, cryptography, ethical hacking, etc.

b) **Improve the quality of trainers:** The trainers play a crucial role in imparting skills to the workforce. There is a need to improve the quality of trainers by providing them with regular training and upskilling. Improving the quality of trainers is essential for the skill development program in India to ensure that the workforce receives high-quality training that meets industry requirements. The skill development program



should collaborate with industry experts to provide training to the trainers. The industry experts can share their knowledge and experience with the trainers, which will improve the quality of training provided to the workforce. The trainers should be certified and accredited by recognized institutions (Jain, 2018). The certification and accreditation process will ensure that the trainers meet the required standards of knowledge and teaching skills. The skill development program should leverage technology to provide training to the trainers. The trainers can use e-learning platforms, virtual classrooms, and other digital tools to enhance their teaching skills and knowledge. The trainers should also receive feedback and evaluation from the learners and industry experts. The feedback and evaluation will help the trainers to identify their strengths and weaknesses and improve their teaching skills accordingly. And lastly, the trainers should be provided with incentives and recognition for their performance. The incentives and recognition will motivate the trainers to improve their teaching skills and provide high-quality training to the workforce.

c) **Increase industry participation:** The industry should actively participate in the skill development program by providing inputs on the skills required and also by providing on-the-job training to the workforce. Increasing industry participation is crucial for the skill development program in India as it will ensure that the workforce receives training that is relevant to industry requirements (Okada A. , 2006). The skill development program should engage with the industry to understand their requirements and identify the skills that are in demand. The industry can provide inputs on the curriculum, training methodology, and assessment process. The skill development program should collaborate with the industry to provide training to the workforce. The industry can provide training infrastructure, trainers, and equipment to ensure that the training is relevant to industry requirements (Sharma, 2016). The industry should participate in the assessment of the workforce to ensure that the assessment process is relevant to industry requirements. The industry can provide inputs on the assessment methodology and participate in the evaluation of the workforce. The industry should support the skill development program in providing placements to the trained workforce. The industry can provide job opportunities, internships, and apprenticeships to the trained workforce, which will ensure that the training is relevant to industry requirements. Also, the industry should provide funding for the skill development program to ensure their sustainability. The industry can provide funding for infrastructure, equipment, trainers, and curriculum development. However, increasing industry participation is crucial for the skill development program in India to ensure that the workforce receives training that is relevant to industry requirements (Tara, 2016). The skill development program should focus on industry engagement, collaboration, engagement of industry experts as trainers, industry participation in assessment, industry support for placements, and industry funding to increase industry participation.

d) **Increase the focus on vocational training:** The skill development program should focus more on vocational training so that the workforce is equipped with the skills required for specific jobs. Increasing the focus on vocational training is essential for the skill development program in India as it will equip the workforce with the skills that are in demand in the job market. Vocational training focuses on providing practical skills and hands-on experience that are required in specific trades and industries (Venkateshwarlu, Skill development training Programme: A Case study of IGNOU, 2016). The skill development program should identify the trades that are in high demand in the job market. This will help in prioritizing the vocational training program that need to be developed. The skill development program should collaborate with the industry to identify the skills that are required in specific trades and industries. The industry can provide inputs on the curriculum and training methodology for vocational training program. The skill development program should develop vocational training program for specific trades and industries (NMK, 2021). These programs should focus on providing practical skills and hands-on experience to the workforce. The vocational training program should be certified and accredited by recognized institutions. This will ensure that the training is of high quality and meets industry requirements. However, increasing the focus on vocational training is crucial for the skill development program in India to equip the workforce with the skills that are in demand in the job market. The skill development program should focus on identifying high-demand trades, collaborating with industry, developing vocational training program, upgrading infrastructure and equipment, engaging skilled trainers, and certification and accreditation to increase the focus on vocational training (Tsuji, 2005).

e) **Provide financial assistance:** The government should provide financial assistance to the economically weaker sections of the society to enable them to participate in the skill development program. Providing financial assistance is crucial for the success of skill development program in India as it will ensure that the workforce has access to training and education (Paul, 2011). The cost of skill development program can be a barrier for many people, especially those from economically disadvantaged backgrounds. The skill development program should offer scholarships to students who are unable to afford the cost of training. Scholarships can cover tuition fees, training materials, and other related expenses. The skill development

program can partner with financial institutions to provide loans to students who need financial assistance. These loans can be repaid after the student completes the training and finds a job. The government can provide subsidies to skill development program to reduce the cost of training. This can encourage more people to enroll in these programs. The government and other organizations can also provide grants to skill development program to support their operations. These grants can be used to cover the cost of infrastructure, equipment, and training materials. Also, the government can partner with private companies to provide financial assistance to students. These partnerships can involve the government providing funding and the private sector providing training and employment opportunities. However, providing financial assistance is crucial for the success of skill development program in India as it will ensure that the workforce has access to training and education (Moorosi, 2009). The skill development program should focus on offering scholarships, loans, subsidies, grants, tax benefits, and public-private partnerships to provide financial assistance to students.

f) **Create a strong monitoring mechanism:** A strong monitoring mechanism should be put in place to ensure that the skill development programs are being implemented effectively and the desired outcomes are being achieved. Creating a strong monitoring mechanism is crucial for the success of skill development program in India as it will ensure that the programs are running efficiently and effectively. Monitoring mechanisms can help in identifying the gaps in the training process, and areas where improvement is needed. The skill development program should conduct regular inspections to ensure that the trainers are providing quality training and that the infrastructure and equipment are in good condition (McGrath, 2002). The skill development program should evaluate the performance of trainers regularly. This can help in identifying areas where the trainers need improvement and provide feedback to improve their performance. The skill development program should also evaluate the performance of students regularly. This can help in identifying areas where the students need improvement and provide feedback to improve their skills (Mason, 2006). The skill development program should collect feedback from employers about the quality of the training and the skills of the workforce. This can help in identifying the areas where the training needs improvement and in designing program that meet the needs of the job market. The skill development program should continuously improve their training process based on the feedback received from trainers, students, and employers. This can help in ensuring that the programs are meeting the needs of the job market and providing quality training. However, creating a strong monitoring mechanism is crucial for the success of skill development program in India. The skill development program should focus on regular inspections, evaluation of trainers and students, feedback from employers, data analysis, and continuous improvement to create a monitoring mechanism that ensures the effectiveness and efficiency of the program.

#### **IV. Conclusion**

In conclusion, the skill development program in India need reform in several areas to ensure that they are effective and meet the needs of the job market. The study identified the need to focus on emerging technologies, improve the quality of trainers, increase industry participation, and increase the focus on vocational training. By implementing these reforms, India can create a skilled workforce that can meet the demands of the job market and contribute to the growth of the economy.

#### **Reference**

- [1]. Agarwal, T. (2013). Vocational Education and Training programs : An Asian Perspective. Asia-Pacific Journal of Cooperative Education,, 15-26.
- [2]. Agrawal, T. (2012). Vocational education and training in India: challenges, status and labor market outcomes. Journal of Vocational Education and Training, 453-474.
- [3]. Asha, S. L. (2016). Skill Development in India: Challenges and Opportunities. Indian Journal of Science and Technology.
- [4]. Banerjee, R. S. (2018). Role of recognition of prior learning for emerging economies: learning from a four sector pilot project in India. Journal of Education and Work.
- [5]. Bank, A. D. (2008). Education and skills: Strategies for Accelerated Development in Asia and the Pacific. Manila: Asian Development Bank.
- [6]. Barabasch, A. H. (2008). Planned policy transfer: the impact of the German model on Chinese vocational education compare. A Journal of Comparative and International Education,, <http://www.tandfonline.com/loi/ccom20>.
- [7]. Chenoy, D. (2013). Skill Development in India : A transformation in the making, Private Sector in Education . Indian Infrastructure Report : Infrastructure Development Finance Company.
- [8]. Chenoy, D. (2019). Skill development for accelerating the manufacturing sector: the role of 'new-age' skills for 'Make in India'. International Journal of Training Research.
- [9]. Chhadwani, D. R. (November, 2018). Analysing the impact of skill India as a tool for reshaping Indian economy. IJRAR- International Journal of Research and Analytical Reviews , 392-397.
- [10]. Dash, D. C. (2020). Skill Development Mission and the Skill Landscape. International Journal of Innovative Science and Research Technology, 34-37.
- [11]. Desai, S. D. (2010). Human Development in India: Challenges for a Society in Transition. New Delhi: Oxford University Press.
- [12]. DK, P. A. (2017). Impact of skill India training programme among the youth. International Journal of Multidisciplinary Research and Development, 294-299.

- [13]. Dogra, J. K. (2018). Skill Development in Punjab: A Critique Study of Initiative, Challenges and Way Forward. *Amity Journal of Entrepreneurship*, 24-35.
- [14]. Dr. Anand Prakash. (2016). Skill Development in India: Challenges and Opportunities., *International Research Journal of Management Sociology & Humanity*.
- [15]. Dr. Deepa Gupta & Sugandha Agarwal. (2018). Skill Development Initiative - Literature Review. *Journal of Modern Management & Entrepreneurship*.
- [16]. Dr. Rajni Arora, & M. (March 2019). Analysing the impact of skill India as a tool for reshaping Indian economy. *IJRAR-International Journal of Research and Analytical Reviews*, 392-396.
- [17]. Eichhorst W, R.-P. N. (2012). A Roadmap to Vocational Education and Training Systems Around the World., IZA DP.
- [18]. Employment, M. o. (2011). Annual Report 2010–11, Ministry of Labor and Employment. New Delhi: Government of India.
- [19]. Euler, D. (2013). Germany’s dual vocational training system: a model for other countries? Gütersloh: Bertelsmann Stiftung.
- [20]. Furtado, H. (2018). , A study on impact of skill development at entry level job candidates in India. *Journal of Business and Management*, 24-32.
- [21]. GOI. (2016). Programme Guidelines. Retrieved from [ddugky.gov.in](http://ddugky.gov.in): . DDU-GKY, Ministry of Rural Development.
- [22]. Government of India- Ministry of Skill Development & Entrepreneurship, N. (n.d.).
- [23]. H, K. A. (2019). Skill Development - The Future of India. *International Journal of Scientific & Technology Research*.
- [24]. IAMR. (2010). , The Challenges Facing Skill Development in India. [www.iamrindia.gov.in](http://www.iamrindia.gov.in).
- [25]. India, G. o. (2004). *India Vision 2020*. New Delhi: Planning Commission.
- [26]. India, G. o. (2011). *Second Annual Report to the People on Employment*. New Delhi: Ministry of Labour & Employment.
- [27]. India, G. o. (2014). *Education, Skill Development and Labour Force*., Delhi: Labour Bureau, Ministry of Labour & Employment.
- [28]. Jain, T. M. (2018). Barriers to skill acquisition: Evidence from English training in India. *World Development*, 314-325.
- [29]. Jamal, T. a. (2013). , Skill development mission in vocational areas – mapping government initiatives. *Current Science*, Vol. 104.
- [30]. James, D. A. (2002). The Evolution of Education and Training Strategies in Singapore, Taiwan and S. Korea: A development model of skill formation. *Journal of Education and Work*, 5-30.
- [31]. Johansson, R. &. (2004). *Skills Development in Sub-Saharan Africa*. . Washington, D.C.: World Bank.
- [32]. Kahlon, A. (2017). Skill development mission in Punjab: Key Challenges, hindrances and possible solutions. *International Journal of Science, Technology and Management*, 854-857.
- [33]. Kasturi, A. (2021). Skill Development in India - A Critical Review of National Policy and Initiatives. *CESS-RSEPPG Background Paper Series (BPS)#7*, 1-15.
- [34]. Kuruvilla, S. E. (2002). An Assessment of the Singapore Skills Development System: Does it Constitute a Viable Model for Other Developing Countries. *World Development*, 1461-1476.
- [35]. Maroof Maqbool, M. A. (March 2019). Skill Development Programmes in India – A Literature Review. *RESEARCH REVIEW International Journal of Multidisciplinary*, 459-468.
- [36]. Mason, G. &. (2006). Employability skill initiative in higher education: what effect do they have on graduate labour market outcomes?. *Education Economics*, 1-30.
- [37]. McGrath, S. (2002). Skills for Development: A New Approach to International Cooperation in Skills Development? *Journal of Vocational Education and Training*, 413-430.
- [38]. Middleton, J. Z. (1993). *Skills for Productivity: Vocational Education and Training in Developing Countries*. New York: Oxford University Press.
- [39]. Ministry of Skill Development & Entrepreneurship, N. K. (2017-22). *Human Resource and Skill Requirements* . New Delhi: Government of India-.
- [40]. Moorosi, P. (2009). Gender, skill development and poverty reduction. *Empowering Women for Gender Equity*, 110-117.
- [41]. N, A. B. (2017). Impact of Skill India on Rural Youth – A Perspective. *ICTACT Journal on Management Studies*, 457-460.
- [42]. NMK, S. M. (2021). Pursuing Growth in Developing countries through Community Capacity Building – An innovative approach towards Skills development. *Ilkogretim Online. Elementary Education Online*, 516-526.
- [43]. OECD. (1997). *Industrial Competitiveness in the Knowledge-based Economy: The New Role of Governments*. Paris: OECD.
- [44]. Okada, A. (2006). Skills Formation for Economic Development in India: Fostering Institutional Linkages between Vocational Education and Industry. *Manpower Journal*, 71-95.
- [45]. Okada, A. (2012). Skills Development for Youth in India: Challenges and Opportunities. *Journal of International Cooperation in Education*, 161-193.
- [46]. Pandey, S. (January 2016). Improvising Skill Development & Employability Potential through Higher Education, Research & Innovations in India. *International Journal of Innovative Research in Science, Engineering and Technology*, 680-689.
- [47]. Paul, B. (2011). Demographic Dividend or Deficit: Insights from Data on Indian Labor. *Annual Conference of the Academic Network for Development*, 3-6.
- [48]. Planning Commission, G. o. (2008). *Eleventh Five Year Plan*. New Delhi: Oxford University.
- [49]. Punjani, P. K. (n.d.). A STUDY ON THE REQUIREMENT OF SKILLS DEVELOPMENT FOR THE SUCCESS OF “MAKE IN INDIA” PROJECT. *Tactful Management Research Journal*, 65-71.
- [50]. R, D. Y. (2017). Economic Prosperity Through Skill India: A Study Of Key Success Factors And Challenges. *International Journal of Management*, 17-23.
- [51]. R, V. (2012). Vocational Education and Training System (VET) in India, in Matthias Pilz *The Future of Vocational Education and Training in a Changing World*. VS: Springer.
- [52]. Research, G. o. (n.d.). *Understanding Skill Development and Training in China: Lessons for India*. New Delhi: Planning Commission.
- [53]. Run-Zhi Lai, N. M. (2011). *Vocational Education and Training in China*.
- [54]. S., M. (2022). *India’s Skill Challenge: Reforming the Vocational Training System to realize the Demographic Dividend*., Oxford University Press.
- [55]. Sharma, L. &. (2016). Skill development in India: Challenges and opportunities. *Indian Journal of Science and Technology*, 1-8.
- [56]. Swain, A. S. (2020). Skill Development In India : Challanges & Opportunities. *International Journal of Scientific Research and Engineering Development*.
- [57]. Tamanna Joshi & Mukesh Pandey. (2018). Skill Development: Enhancing Employability in India. *Journal of Management Research and Analysis*, 32-36.
- [58]. Tara, N. &. (2016). Skill development in India: In conversation with S. Ramadorai, Chairman, National Development Corporation, former CEO, MD & Vice-Chairman, TCS., *IIMB review*, 184-185.
- [59]. Training, N. C. (2009). *India Yearbook* . Delhi: NCERT.

- [60]. Tsuji, A. K. (2005). Bangalore's Software Cluster. In A. K. Tsuji, *Industrial Clusters in Asia: Analyses of their Competitiveness and Cooperation* (pp. 244-277). New York: Palgrave-Macmillan,.
- [61]. Venkateshwarlu, N. S. (2016). Skill development training Programme: A Case study of IGNOU. *Global Journal of Enterprise Information system*, 66-70.
- [62]. Venkateshwarlu, N. S. (2016). Skill development training Programme: A Case study of IGNOU. *Global Journal of Enterprise Information system*, 66-70.
- [63]. Vidhyadhar T. Banajawad & Dr.Mukta S Adi. (2020). A study on skill development programmes for rural youth in India. *International Journal of Education, Modern Management, Applied Science & Social Science*.
- [64]. Yadav, R. (n.d.). "SKILL DEVELOPMENT INITIATIVES IN INDIA: CHALLENGES AND STRATEGIES WITH REFERENCE TO VOCATIONAL TRAINING INITIATIVES IN MAHARASHTRA". *Tactful Management Research Journal*, 2319-7943.