

Skill Development in India: Policies, Challenges, and the Road Ahead

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ABSTRACT

Skill development plays a crucial role in India's socio-economic growth, particularly in leveraging its vast demographic dividend. This paper provides a comprehensive review of India's skill development ecosystem, examining key government initiatives, private-sector involvement, policy frameworks, and emerging trends. It highlights flagship programs such as the Skill India Mission, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), and other vocational training schemes aimed at bridging the gap between formal education and industry requirements. Despite these efforts, challenges such as inadequate infrastructure, lack of industry alignment, and regional disparities persist. The paper also explores opportunities for a more sustainable and inclusive skill development framework by integrating technological advancements, fostering public-private partnerships, and strengthening vocational education at grassroots levels. By addressing these issues, India can better equip its workforce with the skills necessary for global competitiveness and long-term economic growth.

Keywords: Skill development, Government initiatives, Economic growth, Vocational training, Policy frameworks, Public-private partnerships.

INTRODUCTION

Skill development is increasingly seen as a critical factor in shaping India's future workforce. As the world's largest democracy and one of the youngest nations in terms of its population, India is positioned with a unique advantage — a demographic dividend. However, this dividend can only be fully realized if the youth are equipped with the right set of skills to meet the demands of the job market. Despite the large pool of young talent, the country faces a significant challenge in terms of skill mismatch and the employability of its workforce. Skill development, therefore, becomes crucial not just for individual empowerment, but for the overall economic growth of the nation. This paper examines the current skill development landscape in India, evaluates the initiatives undertaken by the government and the private sector, highlights the challenges in implementation, and explores opportunities for improvement. Through this analysis, we seek to understand how India can bridge its skill gap, create a future-ready workforce, and ensure that the benefits of its demographic dividend are fully realized.

Background and Importance of Skill Development in India

India's demographic profile offers immense potential, with over 65% of its population under the age of 35. This creates an opportunity for India to leverage its young workforce to drive economic growth, but only if the youth are adequately skilled. Historically, India has focused heavily on academic education, often neglecting the vocational and technical skills that are crucial for meeting the demands of the job market. As a result, there is a growing mismatch between the skills taught in educational institutions and the skills required by industries, leading to high unemployment rates, especially among the educated youth. Skill

development, therefore, is a vital component in ensuring that India remains competitive in the global economy. It helps improve employability, reduces poverty, and enhances social inclusion by equipping individuals with the necessary competencies to thrive in the workforce. With industries evolving rapidly due to technological advancements and globalization, there is an urgent need for a skilled workforce that can adapt to new challenges. As such, skill development serves not only as a means to address unemployment but also as a pathway to socioeconomic development and a more sustainable future for the country.

REVIEW OF LITERATURE

Mehta, N. J., Bhatt, N. P., & Raval, N. V. (2024) Researcher have highlighted that the realization of Viksit Bharat 2047 depends significantly on a well-structured skill development framework, aligning with India's vision of becoming a developed nation by its 100th year of independence. Studies have emphasized that empowering key groups—youth, women, the poor, and farmers—through skill enhancement is essential for economic and social transformation. However, research has also pointed out critical challenges, including outdated curricula, weak industry alignment, and regional disparities in skill development. A study conducted on India's workforce readiness suggests that fostering innovation, digitization, and entrepreneurial education is necessary to create a future-ready workforce. Furthermore, researchers argue that continuous reskilling and upskilling will be vital as global economic structures evolve.

Ms. Ritu Sharma (2023), the study focused on The importance of skill development in driving economic growth is widely recognized. A comprehensive literature review highlights the crucial role of Technical and Vocational Education and Training in fostering a skilled workforce. Various government initiatives, such as national skill missions, policies, and programs, are emphasized as key to building a robust skill development ecosystem in India. These initiatives aim to address both current and future workforce needs. During the COVID-19 pandemic, the government adapted its skill development strategies, implementing reforms to ensure continuity in training and mitigate the economic challenges posed by the crisis. These efforts underline the vital role of skill development in preparing a resilient workforce for future demands.

Prabhakar, N. S., & Nimesh, N. A. (2022) conducted a study on “Skill development programmes for women in India: current status and future perspectives” have highlighted that skill development programs for women play a crucial role in enhancing their socio-economic status and promoting gender equality. The study conducted on government-led initiatives emphasized that these programs aim to integrate women into the industrial and service sectors, thereby strengthening their economic participation. However, the study highlighted that rural women face significant barriers, including limited access to education, societal constraints, financial dependence, and lack of awareness about training opportunities. Researcher has pointed out that these challenges hinder the full realization of the government's skill development objectives.

Dr. Ajay Solkhe, Dipika(2021) discussed that India's skill development ecosystem is governed by a structured policy framework at both the state and central levels. this study conducted on the Skill India campaign found that around 20 Central Ministries and Departments, including the Ministry of Skill Development and Entrepreneurship, oversee more than 40 skill development schemes. Studies have emphasized that while policy-backed initiatives aim to enhance workforce employability, their implementation faces significant challenges. Research has observed that despite substantial government expenditure, the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) has struggled to meet its target of training 1 crore individuals. This study highlighted that the performance of the Centrally Sponsored State Managed (CSSM) component was particularly low, achieving only 20.48% of its target, while the Centrally Sponsored Centrally Managed (CSCM) component performed better at 74.95%. Furthermore, studies have pointed out that placement rates remain low, with CSCM achieving 28.41% and CSSM 28.79%. Researchers suggest that increasing public awareness through government-led promotional campaigns is essential, as people tend to trust government-backed training programs more than private initiatives.

Ms. Megha Grover, Ramit Kapoor(2020), Researchers have highlighted that skill development is a crucial factor in driving economic growth and reducing unemployment in India. the study conducted on government

initiatives such as Skill India and Make in India emphasized their role in equipping the youth with necessary competencies and refining existing skills to meet industry demands. Studies have further pointed out that skill development programs not only enhance employability but also contribute to overall economic progress by creating a more skilled workforce. However, researcher has highlighted various challenges, including inadequate training infrastructure, lack of industry alignment, and limited awareness among job seekers. This study emphasized that addressing these challenges through structured policies, industry collaboration, and widespread awareness campaigns is essential for successful skill development. Researchers suggest that by strengthening these areas, India can harness its demographic dividend effectively, paving the way for sustainable growth and reduced unemployment.

Cabral, C., & Dhar, R. L. (2019) the study discussed that skill development plays a crucial role in economic empowerment, particularly in the context of technological advancements and labor market reforms. A study conducted through a systematic literature review of 45 articles (2004–2017) emphasized the importance of institutional frameworks such as the National Skill Development Agency (NSDA) and Pradhan Mantri Kaushal Vikas Yojana (PMKVY) in shaping India's skill ecosystem. The study highlighted that integrating skill development with secondary education is essential for improving workforce preparedness.

Sawale, S. B., & Karpe, M. D. (2019) discussed that the Training plays a crucial role in ensuring the availability of skilled manpower at all management levels, enhancing the abilities and potential of entrepreneurs, and improving efficiency. It helps maintain product quality, minimize wastage in the production process, reduce fatigue, and increase work speed. Government support for women's entrepreneurship development through initiatives like MSME, DIC, Make in India, Start Up India, and Stand Up India is vital in fostering entrepreneurial growth. Additionally, the government provides various training and skill development programs for individuals aspiring to start their own businesses, ultimately contributing to the growth of entrepreneurship and the economy.

Sharma, L., & Nagendra, A. (2016) conducted a study "Skill Development in India: Challenges and Opportunities" the main objective of the study is to understand the current state of vocational education and training and review them. India, with the lowest median age among major economies, is poised to become the largest provider of a skilled workforce globally. This demographic advantage positions India alongside countries like China and Singapore in skill development and labor supply. However, significant skill gaps persist across various sectors, limiting workforce readiness. Addressing these gaps through targeted training programs, industry-academia collaboration, and policy interventions is crucial. The study also highlights challenges in skill development, including inadequate infrastructure, evolving industry demands, and regional disparities.

Tara, S. N., & Kumar, N. S. (2016) Researchers have highlighted the urgent need to scale up skill development efforts as India transitions into a knowledge-based economy. The study conducted on various government initiatives emphasized the role of schemes, management structures, and policy frameworks in building a professional skilled workforce. The study highlighted that while significant progress has been made, challenges such as fragmented implementation, lack of industry alignment, and insufficient training infrastructure persist. Research has also pointed out the importance of identifying effective pathways to counter these challenges and ensure the successful execution of skill development programs.

Research Gap

Despite various government and private sector initiatives, there is a lack of research on aligning these efforts with labor market demands. Long-term evaluations of programs like Skill India Mission and PMKVY remain limited. Additionally, regional disparities in skill development, especially in rural areas, require further study. The role of emerging technologies in expanding training access and the effectiveness of private sector involvement in bridging the education-industry gap also need deeper exploration. Addressing these gaps will help create a more inclusive and industry-aligned skill development framework in India.

Objectives of the Study

1. To analyze the current status of skill development in India
2. To examine the effectiveness of government initiatives
3. To assess the role of the private sector and industry partnerships
4. To identify the key challenges faced in implementing skill development programs in India

RESEARCH METHODOLOGY

This study adopts a qualitative and analytical approach to examine India's skill development ecosystem. The methodology includes the following key components:

Research Design

A descriptive research design is used to analyze policies, programs, and challenges in skill development. The study focuses on government initiatives, private-sector participation, and emerging trends in the sector. Information is gathered from government reports (e.g., Ministry of Skill Development and Entrepreneurship), policy documents, research papers, and industry reports. Review of successful skill development models and best practices from India and other countries have been included. Examining differences in urban vs. rural skill development efforts and industry participation.

Scope and Limitations

- The study focuses on existing policies and does not include primary data collection from stakeholders.
- Findings are based on available literature, and real-time industry trends may evolve beyond the study's scope.

DISCUSSION

India has made significant strides in skill development to harness its demographic dividend. The Skill India Mission, launched in 2015, has been pivotal in this effort. As of 2024, the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) has trained approximately 14.2 million individuals, with over 11.3 million receiving certification across various sectors. The India Skills Report 2024 indicates an improvement in employability, with 51.25% of assessed youth found to possess the required skills. Telangana stands out, with 85.45% of its youth in the 18-21 age groups being employable. Despite these advancements, challenges persist. A significant portion of the workforce remains without formal vocational training, leading to a mismatch between industry demands and available skills. Regional disparities, particularly in rural areas, further exacerbate this issue. To address these challenges, the government has introduced initiatives like the Skill India Digital platform to enhance accessibility and the revised Model Skill Loan Scheme, which offers loans up to ₹7.5 lakh with government-backed guarantees, benefiting 25,000 students annually.

Government Initiatives in Skill Development

In response to the growing need for skilled labor, the Government of India has launched several initiatives aimed at enhancing the country's skill development ecosystem. One of the most significant efforts in this direction is the Skill India Mission, launched in 2015, which aims to train over 40 crore people by 2022 in a variety of skill sets ranging from traditional trades to emerging sectors like Information Technology (IT), renewable energy, and healthcare. Among the key initiatives under this mission is the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), a flagship scheme designed to provide industry-relevant skills to youth and certify them based on national standards. The National Skill Development Mission (NSDM) also plays a pivotal role in coordinating and accelerating skill development activities across the country, ensuring that skills' training is aligned with the needs of the labor market. Additionally, the government has focused on creating a robust National Skill Qualification Framework (NSQF), which provides a clear structure for

recognizing skills and qualifications. These programs aim to build a more structured approach to skill development, ensuring that training is standardized and recognized across industries. While these initiatives have made significant strides, their effectiveness depends on various factors such as quality of training, availability of infrastructure, and engagement with private sectors to align skills with employment needs.

Private Sector Contribution to Skill Development

In addition to the government's initiatives, the private sector in India has also played an instrumental role in skill development, especially in providing specialized training programs tailored to the needs of specific industries. Many private companies have launched corporate social responsibility (CSR) initiatives that focus on skill development in underserved regions, offering training in areas like IT, hospitality, healthcare, and manufacturing. These efforts are often driven by the recognition that businesses need a skilled workforce to remain competitive. For example, companies like Tata, Infosys, and Reliance have partnered with educational institutions to establish training centers and offer courses that bridge the gap between education and employment. Industry-led skill councils have been set up to offer vocational education that meets global standards and the demands of the labor market. Additionally, the private sector is also leading the charge in adopting technology-driven solutions for skill development, such as online learning platforms, mobile apps, and virtual classrooms, making training more accessible, especially in remote areas. However, while the private sector's contribution is valuable, there needs to be a more coordinated effort between the government and private enterprises to ensure that the skills being developed are aligned with market demand and are accessible to a larger section of the population.

Challenges in Skill Development

Despite the various efforts made by both the government and private sector, skill development in India faces several critical challenges that hinder its effectiveness. One of the biggest issues is the mismatch between the skills imparted and industry requirements. Many skill development programs fail to align with the specific needs of industries, leading to a situation where skilled individuals are either unemployable or underemployed. The quality of training also remains a concern, as many training providers lack the resources, infrastructure, and qualified trainers to deliver high-quality education. Furthermore, access to training centers is a significant barrier, particularly in rural and remote areas where infrastructure and resources are limited. Regional disparities in skill development programs create uneven opportunities for youth, making it difficult for people in less developed states to access training and employment opportunities. In addition to this, the lack of industry collaboration in curriculum design, training modules, and certification processes means that many students graduate with qualifications that are not recognized or valued by employers. The overall funding for skill development programs is also insufficient to meet the growing demand for skilled labor, leading to gaps in the availability of high-quality training options. Lastly, social barriers such as gender, caste, and economic status also prevent certain segments of the population from accessing skill development opportunities, leading to inequalities in employment outcomes. Addressing these challenges is key to creating a more effective and inclusive skill development ecosystem in India.

- Mismatch between the skills taught and industry requirements
- Low quality of vocational training
- Inadequate infrastructure and funding
- Regional disparities in access to training
- Gender and social barriers

SUGGESTIONS

On the basis of aforementioned discussion, the suggestions are made as under.

- Develop more training centers in rural and underserved areas to reduce regional disparities. Improve digital infrastructure to facilitate online and hybrid skill development programs.

- Establish stronger collaboration between industries and training institutes to ensure courses meet current job market demands. Regularly update curricula based on technological advancements, automation, and future industry trends.
- Utilize AI, virtual reality, and online learning platforms to make skill training more interactive and accessible. Implement data-driven tracking systems to assess program effectiveness and employability outcomes.
- Encourage corporate investment in vocational education under CSR initiatives. Establish joint certification programs between private industries and government bodies for better skill recognition.
- Improve monitoring and evaluation mechanisms for government-backed skill development schemes like PMKVY. Simplify administrative procedures and provide incentives for startups and MSMEs to participate in skill-building initiatives.
- Promote women's participation in vocational training through targeted programs and financial assistance. Provide subsidized training for economically disadvantaged groups to make skill development more inclusive.
- Embed vocational training within school and college curricula to equip students with job-ready skills early. Expand the National Skill Qualification Framework (NSQF) to cover a broader range of sectors.
- Study successful models from countries like Germany, Singapore, and China to integrate best practices into India's skill development policies. Foster international collaborations for skills training, certification, and knowledge exchange.

CONCLUSION

Skill development is a key driver of India's socio-economic growth, especially in harnessing its vast demographic dividend. While significant progress has been made through initiatives such as the Skill India Mission and Pradhan Mantri Kaushal Vikas Yojana (PMKVY), several challenges persist, including infrastructure gaps, industry misalignment, and regional disparities. To ensure a more sustainable and inclusive skill development ecosystem, India must focus on enhancing infrastructure, leveraging technology, strengthening public-private partnerships, and integrating vocational education within formal schooling. Aligning training programs with industry requirements and global best practices will further improve employability and workforce competitiveness. By addressing these critical areas, India can equip its workforce with future-ready skills, reduce unemployment, and strengthen its position in the global economy. A well-structured, technology-driven, and industry-aligned skill development framework will not only enhance job creation but also contribute to long-term economic stability and social progress.

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