



# UNSKILLED WORKFORCE: A BARRIER TO GROWING SMALL-SCALE INDUSTRIES IN INDIA

<sup>1</sup>Vineeta Singh, <sup>2</sup>Dr. V.D. Sharma,

<sup>1</sup>Research Scholar, <sup>2</sup>Professor,

<sup>1</sup>Department of Business Economics, VBS Purvanchal University, Jaunpur, India

<sup>2</sup>Department of Business Economics, VBS Purvanchal University, Jaunpur, India

**Abstract:** In India by the year 2025, approximately 75% of the population would be employable. For the overall development of the country, we need better skills and opportunities at the same time. The population with proper skills could help the nation to generate revenue, create job opportunities and mitigate poverty. Small-scale industries in India are crucial for the development of the nation as a developed country, despite that this sector is facing a shortage of skilled workforce. Understanding and mitigating the challenge of skilled workforce shortage is crucial for the growth and success of small-scale industries in India. By analysing the factors contributing to the shortage, evaluating its impacts, and exploring potential solutions, this research paper aims to provide valuable insights for policymakers, industry leaders, and stakeholders in addressing this pressing challenge. Ultimately, the findings and recommendations from this study can contribute to fostering a skilled and competitive workforce that supports the sustainable development of small-scale industries in India.

**Keywords:** Skilled workforce, Sustainable development, employment generation, Vocational training, small-scale industry.

## Introduction:

Small-scale industries play a vital role in the Indian economy, contributing significantly to employment generation, industrial growth, and regional development. These industries are known for their entrepreneurial spirit, innovation, and ability to cater to local markets. However, amidst their contributions, small-scale industries face a critical challenge that threatens their sustainability and growth—the shortage of a skilled workforce.

The shortage of skilled workers in small-scale industries has become a major concern that hampers their productivity, efficiency, and competitiveness. Skilled workers are essential for driving innovation, adopting advanced technologies, and maintaining high-quality standards. Without a skilled workforce, small-scale industries struggle to adapt to changing market demands, implement efficient production methods, and overcome barriers to growth.

This research paper aims to explore and analyse the challenge of skilled workforce shortage in small-scale industries in India. By examining the underlying factors contributing to this challenge and its impact on the growth and performance of small-scale industries, we can gain valuable insights into the dynamics of this issue. Furthermore, this research seeks to identify potential solutions and recommendations to address the skilled

workforce shortage, with the ultimate goal of enhancing the sustainability and competitiveness of small-scale industries.

Through an extensive literature review, this paper will examine previous studies, reports, and scholarly articles that shed light on the factors driving the shortage of skilled workers in small-scale industries. It will explore the limitations in access to quality education and vocational training, brain drain to other sectors, and the prevailing perception that small-scale industries offer limited career growth opportunities. By understanding these underlying factors, we can develop a comprehensive understanding of the challenges faced by small-scale industries in acquiring and retaining skilled workers.

Additionally, this research will investigate the impacts of the skilled workforce shortage on small-scale industries. It will delve into the consequences of diminished productivity, compromised quality standards, and inhibited innovation. By analyzing these impacts, we can comprehend the magnitude of the challenge and its implications for the long-term sustainability of small-scale industries.

To address the skilled workforce challenge, this paper will examine the initiatives and policies implemented by the government to promote skill development, vocational training, and entrepreneurship in the small-scale industry sector. It will assess the effectiveness of these measures and identify potential areas for improvement. Furthermore, the paper will explore the importance of collaboration between small-scale industries and educational institutions in bridging the skills gap. Successful models of industry-academia partnerships, apprenticeship programs, and industry-specific skill development initiatives will be examined to provide insights into effective strategies.

## **FACTORS CONTRIBUTING TO THE SHORTAGE OF SKILLED LABOUR**

1. **Limited Access to Quality Education and Vocational Training:** One of the key factors contributing to the shortage of skilled workers in small-scale industries is the limited access to quality education and vocational training. Disparities in educational infrastructure, especially in rural areas, result in unequal opportunities for skill development. The lack of sufficient technical institutes and vocational training centers catering specifically to the needs of small-scale industries restricts the availability of skilled workers.
2. **Perception of Limited Growth Opportunities:** Small-scale industries often face challenges in attracting skilled workers due to the perception that these industries offer limited career growth opportunities compared to larger enterprises. Many skilled individuals prefer working for multinational corporations or established companies with perceived stability and growth prospects. The lack of awareness about the potential for innovation, entrepreneurship, and advancement within small-scale industries contributes to this perception.
3. **Brain Drain to Other Sectors:** Skilled workers in small-scale industries are also drawn to other sectors, such as information technology, finance, and service industries. These sectors often provide higher salaries, better benefits, and more appealing career prospects. The allure of urbanization and migration to larger cities for better job opportunities also contribute to the brain drain phenomenon, leaving small-scale industries with a shortage of skilled talent.
4. **Mismatch between Skills and Industry Requirements:** Another contributing factor is the mismatch between the skills possessed by the workforce and the specific requirements of small-scale industries. Rapid technological advancements and changing market demands often require up-to-date skills and knowledge. However, the education system and vocational training programs may not always align their curricula with the evolving needs of small-scale industries, resulting in a skills gap.
5. **Lack of Industry-Academia Collaboration:** Limited collaboration between small-scale industries and educational institutions is a significant factor. The absence of effective partnerships prevents the alignment of curriculum with industry requirements and hampers the transfer of industry-relevant knowledge. Insufficient practical training opportunities, internships, and apprenticeships further widen the gap between theoretical education and practical skills needed in the workplace.
6. **Demographic Shifts and Aging Workforce:** The demographic shifts and an aging workforce pose challenges to the availability of skilled workers in small-scale industries. With a significant portion of the workforce approaching retirement age, there is a need to replace them with a younger generation of skilled workers. However, attracting and retaining young talent poses challenges, particularly when industries face competition from other sectors.

Addressing these factors is crucial to overcoming the challenges of skilled workforce shortage in small-scale industries. By improving access to quality education and vocational training, promoting entrepreneurship and career growth opportunities, fostering industry-academia collaboration, and adapting to the changing needs of the workforce, small-scale industries can attract and retain skilled workers, ensuring their long-term growth and sustainability.

### **IMPACT OF UNSKILLED WORKFORCE ON SMALL SCALE INDUSTRY**

1. **Decreased Productivity:** The shortage of skilled workers in small-scale industries can lead to decreased productivity. Without a sufficient number of skilled employees, industries may struggle to meet production targets and efficiently carry out operations. This can result in delays, inefficiencies, and increased costs, hindering the overall productivity of the business.
2. **Compromised Product Quality:** Skilled workers play a crucial role in maintaining product quality standards. Their expertise and knowledge ensure that products meet or exceed customer expectations. In the absence of skilled workers, small-scale industries may face challenges in maintaining consistent product quality. This can lead to customer dissatisfaction, loss of market share, and damage to the reputation of the business.
3. **Inhibited Innovation and Technological Adoption:** Skilled workers are essential for driving innovation and adopting advanced technologies. They bring expertise, creativity, and problem-solving capabilities that contribute to process improvements and product innovations. However, the shortage of skilled workers can limit the ability of small-scale industries to innovate and keep up with technological advancements, making them less competitive in the market.
4. **Inefficiencies in Operations:** The absence of skilled workers can result in operational inefficiencies within small-scale industries. Skilled workers are often responsible for specialized tasks and have a deep understanding of industry-specific processes. When these tasks are not adequately performed or are distributed among unskilled workers, it can lead to bottlenecks, errors, and inefficiencies in operations, hampering overall business performance.
5. **Limited Capacity for Growth:** Skilled workers are crucial for expanding the capacity and capabilities of small-scale industries. Their expertise enables the industries to scale operations, enter new markets, and diversify product offerings. However, the shortage of skilled workers can restrict the growth potential of these industries, limiting their ability to seize market opportunities and expand their reach.
6. **Increased Training Costs:** When small-scale industries face a shortage of skilled workers, they may need to invest more in training programs to bridge the skills gap. This incurs additional costs for the businesses, including training materials, instructors, and the time required for skill development. These costs can strain the financial resources of small-scale industries, especially those with limited budgets.
7. **Difficulty in Meeting Customer Demands:** Skilled workers contribute to the agility and responsiveness of small-scale industries in meeting customer demands. Their expertise allows for quick adjustments to production schedules, customization of products, and timely order fulfillment. In the absence of skilled workers, small-scale industries may struggle to meet customer demands, leading to potential loss of customers and market share.

Addressing the impact of the skilled workforce shortage is crucial for the growth and sustainability of small-scale industries. By finding ways to attract and retain skilled workers, implementing training and skill development programs, and fostering industry-academia collaboration, small-scale industries can overcome these challenges and enhance their productivity, product quality, innovation, and overall competitiveness.

### **GOVERNMENT INITIATIVES AND POLICIES:**

1. **Skill Development Programs:** The government has launched various skill development programs aimed at enhancing the employability of individuals and addressing the skills gap in the workforce. Programs like the Skill India Mission and the National Skill Development Corporation (NSDC) focus on providing vocational training and certification in specific trades relevant to small-scale industries. These initiatives aim to equip individuals with industry-specific skills and improve their employability.
2. **Vocational Training Schemes:** The government has implemented vocational training schemes specifically targeted at small-scale industries. These schemes provide financial assistance, infrastructure development support, and training facilities to enhance the skill sets of individuals interested in working in small-scale industries. The Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and the Craftsmen Training Scheme (CTS) are examples of such initiatives.
3. **Entrepreneurship Promotion Schemes:** Recognizing the potential of small-scale industries in promoting entrepreneurship and self-employment, the government has introduced entrepreneurship promotion schemes.

These schemes offer financial incentives, business development support, and training programs to encourage individuals to establish their own ventures. Initiatives like the Start-Up India program and the Stand-Up India scheme focus on fostering an entrepreneurial ecosystem and providing assistance to aspiring entrepreneurs.

### **INDUSTRY-ACADEMIA ASSISTING IN SKILL DEVELOPMENT:**

1. **Curriculum Alignment with Industry Requirements:** Collaborations between small-scale industries and educational institutions can help ensure that the curriculum aligns with the specific skill requirements of the industries. By involving industry experts in curriculum development and updating, educational programs can better equip students with the necessary skills and knowledge demanded by small-scale industries.
2. **Internship and Apprenticeship Programs:** Industry-academia collaborations can facilitate the implementation of internship and apprenticeship programs. These programs provide students with practical, hands-on experience in real work environments. Small-scale industries can offer internship and apprenticeship opportunities to students, allowing them to gain industry-specific skills and experience. Such programs can lead to employment opportunities for students within the same industries.
3. **Industry-Specific Skill Development Initiatives:** Collaborations between small-scale industries and educational institutions can result in the development of industry-specific skill development initiatives. These initiatives focus on enhancing the technical and vocational skills required by small-scale industries. They may involve customized training programs, workshops, and seminars conducted by industry experts to address specific skill gaps identified within the industries.
4. **Knowledge Transfer and Research Partnerships:** Industry-academia collaborations can facilitate knowledge transfer between small-scale industries and educational institutions. Research partnerships can help industries gain access to the latest research and technological advancements while providing educational institutions with practical insights into industry needs. This collaboration can lead to joint research projects, sharing of resources, and exchange programs that benefit both parties.

These government initiatives and industry-academia collaborations play a crucial role in addressing the skilled workforce shortage in small-scale industries. By promoting skill development, providing vocational training, fostering entrepreneurship, aligning curriculum with industry needs, and facilitating collaborations, the aim is to bridge the skills gap, enhance the employability of individuals, and support the growth and competitiveness of small-scale industries.

### **SUGGESTIONS AND RECOMMENDATIONS**

- **Strengthening Vocational Training Programs:** Enhance vocational training programs by expanding their reach, improving the quality of training, and incorporating industry-relevant skills. Collaborate with vocational training institutes, industry experts, and small-scale industries to design curricula and training modules that align with the specific skill requirements of the industries.
- **Promoting Industry-Academia Collaboration:** Encourage partnerships between small-scale industries and educational institutions to bridge the gap between theoretical education and practical skills. Facilitate internships, apprenticeships, and industry visits to provide students with hands-on experience and exposure to real work environments. Foster research collaborations to address industry challenges and promote innovation.
- **Government Incentives for Skill Development:** Introduce incentives and subsidies for small-scale industries to invest in the skill development of their workforce. This can include tax benefits, grants, and financial assistance to support training programs, workshops, and upskilling initiatives. Such incentives can motivate small-scale industries to prioritize skill development and invest in the training of their employees.
- **Strengthening Entrepreneurship Ecosystem:** Encourage entrepreneurship within small-scale industries by providing entrepreneurial training, mentoring, and access to financial resources. Government initiatives should focus on creating a supportive ecosystem that nurtures and empowers individuals to start their own ventures within small-scale industries. This can help attract and retain skilled individuals who have an interest in entrepreneurship.
- **Collaborative Industry-led Training Programs:** Small-scale industries can collaborate to create industry-led training programs that address common skill gaps. By pooling resources and expertise, industries can design and deliver training programs that specifically cater to their needs. This collaboration can also include sharing best practices, conducting joint training sessions, and creating networks for knowledge exchange among industries.

- **Promoting Apprenticeship Programs:** Encourage small-scale industries to offer apprenticeship programs to young individuals seeking practical training and industry exposure. The government can provide incentives for industries to participate in apprenticeship programs, such as tax credits or subsidies. This not only provides valuable training opportunities for individuals but also helps small-scale industries develop a pipeline of skilled workers.
- **Enhancing Access to Technical Education:** Improve access to technical education by establishing more technical institutes and vocational training centers in underserved areas. This includes investing in infrastructure, upgrading existing institutions, and providing scholarships or financial aid to deserving students. Emphasize the importance of technical education and promote awareness among students and parents about the potential career opportunities available in small-scale industries.
- **Continuous Learning and Upskilling:** Promote a culture of continuous learning and upskilling within small-scale industries. Encourage employees to participate in training programs, workshops, and seminars to enhance their skills and stay updated with industry trends. Small-scale industries should prioritize employee development, provide opportunities for learning, and create a supportive environment that values skill enhancement.

By implementing these solutions and recommendations, small-scale industries can address the challenge of skilled workforce shortage. These actions can help attract, develop, and retain skilled workers, improve productivity and innovation, and contribute to the overall growth and competitiveness of small-scale industries in India.

## CONCLUSION

In conclusion, the shortage of skilled workforce poses a significant challenge to small-scale industries in India. The impact of this shortage includes decreased productivity, compromised product quality, inhibited innovation, operational inefficiencies, limited capacity for growth, increased training costs, and difficulty in meeting customer demands. However, several solutions and recommendations can be implemented to address this challenge.

Government initiatives and policies play a vital role in skill development. Programs such as Skill India Mission, vocational training schemes, and entrepreneurship promotion initiatives provide avenues for individuals to acquire industry-specific skills and foster entrepreneurship. Strengthening vocational training programs and promoting industry-academia collaboration are essential. Aligning curriculum with industry requirements, facilitating internships and apprenticeships, and fostering research partnerships can bridge the skills gap.

Furthermore, incentivizing skill development through government support, tax benefits, and grants can encourage small-scale industries to invest in training and upskilling their workforce. Collaboration among industries in creating industry-led training programs and promoting apprenticeship programs can contribute to skill enhancement and the development of a skilled talent pool.

Promoting access to technical education, upgrading infrastructure, and creating awareness about career opportunities in small-scale industries are crucial steps. Encouraging a culture of continuous learning and upskilling within small-scale industries is essential for sustaining a skilled workforce.

By implementing these solutions and recommendations, small-scale industries can overcome the challenges posed by the shortage of skilled workers. This will lead to improved productivity, enhanced product quality, increased innovation, operational efficiency, and the ability to meet customer demands. Ultimately, addressing the skilled workforce shortage will contribute to the growth, competitiveness, and sustainability of small-scale industries in India.

**References:**

- Surianarayanan, G., & Menkhoff, T. (2020). Outcomes of an expert survey: Are Singapore's manufacturing small and medium enterprises ready to embrace Industry 4.0.
- Mertzanis, C., & Said, M. (2019). Access to skilled labor, institutions and firm performance in developing countries. *International journal of manpower*, 40(2), 328-355.
- Hajela Ruchi, (2012). Shortage of Skilled Workers: A Paradox of the Indian Economy. SKOPE Research Paper No. 111 November 2012
- Shaju, Hamilton & Suman, Vilasini. (2021). Lack of skilled management personal in small and medium constructions. 7. 2387-2393.
- [www.ilo.org/wcmsp5/groups/public/ed\\_dialogue/sector/documents/publication/wcms\\_710031.pdf](http://www.ilo.org/wcmsp5/groups/public/ed_dialogue/sector/documents/publication/wcms_710031.pdf)
- [www.niti.gov.in/sites/default/files/2019](http://www.niti.gov.in/sites/default/files/2019)
- Industry Academia Conclave on Skill Development – Welcome to SCGJ | SKILL COUNCIL for GREEN JOBS (sscgj. in)
- Jain Mamta. (2017), Bridging Industry Academia Gap Through Skill Development, *International Journal of Innovation and Research in Educational Sciences* Volume 4, Issue 1.
- Skill Development | Government of India, All India Council for Technical Education (aicte-india.org)
- Microsoft Word - Knowledge\_Paper\_Industry\_\_Academia\_Convergence\_Bridging\_t... (inskills.co.in)
- Industry-Academia R&D Ecosystem in India (puchd.ac.in)
- Entrepreneurship and Skill Development Programs | Ministry of Micro, Small & Medium Enterprises (msme.gov.in)
- Buvaneshwari, R., and V. Abinaya. "Women Entrepreneurship." *Shanlax International Journal of Commerce*, vol. 7, no. S2, 2019, pp. 61–63.
- Gupta, Deepa & Agarwal, Sugandha. (2018). Skill development initiative- literature review. *Inspira- Journal of Modern Management & Entrepreneurship (JMME)*, Volume 08, No. 02, April 2018, pp. 319-322

