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Indo-German Programme
for Vocational Education and Training

Conducting a Skill Gap Analysis

A Pilot Measure for Replication | Aurangabad Cluster, Maharashtra





Who We Are

The Indo-German Programme for Vocational Education and Training (IGVET) is a joint initiative of the Indian Ministry of Skill Development and Entrepreneurship (MSDE) and the German Ministry for Economic Cooperation and Development (BMZ). Implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, it aims at improving the skills of India's labour force, a priority for the Government of India.

The work of IGVET is inspired by the German Dual System of Training, which effectively combines school-based learning with high quality, on-the-job training. Based on the German experience, we provide advisory services and guidance to public and private sector actors in different sectors and regions and focus on finding tailor-made solutions for local challenges. Transferable solutions – like the one presented here – are documented for replication and upscaling across other regions and trades.



The Starting Point

Marathwada is a region in the state of Maharashtra, which is home to 195 large, and more than 3,400 small and medium-sized enterprises (SMEs). Apart from agriculture and allied industries, the automotive, pharmaceutical, textile and food processing sectors have played a key role in the region's strong economic development over the past few years and are expected to continue their growth trend.

In theory, this growth provides ample opportunities for job creation and youth employment. However, the Indian vocational education and training (VET) system is struggling to deliver a workforce of adequate size and quality. As a result, many SMEs in the Marathwada region lack the human resources to fully capitalise on their production capacity.

The Case of MASSIA

The *Marathwada Association of Small-Scale Industries and Agriculture* (MASSIA) represents more than 1,500 SMEs from a large variety of sectors. Like many other SMEs, MASSIA's member companies were struggling to fill their job vacancies with qualified candidates. With the support of the *Indo-German Programme for Vocational Education and Training* (IGVET), MASSIA therefore

decided to take matters into their own hands: They established a skill development centre at their headquarters in Aurangabad to actively support their member companies in addressing the lack of human resources. Conducting a skill gap analysis for MASSIA's small and medium-sized member companies was a key milestone in this initiative.



Why Conduct a Skill Gap Analysis?

A skill gap analysis is a prerequisite for the successful design and implementation of any training-related initiative. It is generally conducted by policy makers and training providers to align their respective efforts with the needs of the industry. In the case of MASSIA, our skill gap analysis allowed us to better understand

- 1 the skill sets that are available on the market;
- 2 the skill sets that are needed by MASSIA's member companies; and
- 3 the challenges MASSIA's member companies are facing in identifying, recruiting, training and retaining young talent.

Based on this information, MASSIA was able to deduce which trainings should be provided to which target group in which sector and how these trainings would need to be designed. Furthermore, MASSIA used this information to determine additional support services that the new skill development centre was to offer its small and medium-sized member companies.



Mr. Arjun Gaikwad

Convener – MASSIA Skill Development Center

“GIZ support in doing this skill gap analysis allowed us to identify the skill demand especially in small-scale industries. This is very important since many small companies struggle to put the required time and money into such activities. The analysis not only helped to identify and become aware of major skill gaps in different industries. It also encouraged MASSIA to establish a skills development centre and to take action to better support our member companies in all training-related matters.”

What We Did

To conduct a comprehensive skill gap analysis for MASSIA's member companies, we supported MASSIA in:

- putting together a task force,
- developing a tailor-made skill gap survey,
- shortlisting 50 SMEs from 7 different sectors to participate in the survey,
- administering the survey to 33 of the shortlisted SMEs through face-to-face interviews,
- triangulating the survey results through follow-up phone interviews,
- analysing the results of the survey and the follow-up interviews to identify skill gaps,
- determining suitable courses of action to address the identified skill gaps, and
- compiling the collected data and the determined courses of action in a detailed skill gap report.



Mr. Abhay Hanchanal

President of MASSIA

“MASSIA conducted a skill gap survey last year in association with GIZ among our member companies. The survey analysis gave us the complete information on list of skills sets needed, and where there is a strong demand. This has helped us to focus and work on those areas to support our member companies in training and developing the manpower they need.”

Our Task Force

To enable MASSIA to support its member companies in addressing their lack of human resources, we put together a task force consisting of 5 representatives of MASSIA's management board, as well as MASSIA's member companies. In a series of round table meetings, our task force discussed their personal experiences and observations with regard to their human resource requirements.

As a result of these round table discussions, our task force realised that they would require more detailed information about the existing skill gaps and overarching challenges faced by MASSIA's member companies to be able to design and implement effective support services. The following key questions were raised by the participants of the round table meetings:

- 1 What are the entry-level requirements for the available job vacancies in our member companies?
- 2 To what extent do the skillsets of young jobseekers meet the requirements of our member companies?
- 3 Which technical skills are required for the available job vacancies in our member companies?
- 4 Which soft skills are required for the available job vacancies in our member companies?
- 5 What are the main challenges faced by our member companies in identifying, recruiting, and equally important, retaining young talent?
- 6 What are the main challenges faced by our member companies in training young talent for their available job vacancies?
- 7 What are the main dynamics and reasons behind the identified skill gaps and challenges?
- 8 What are our member companies' expectations towards us, as an industry association, to support them in addressing the identified challenges and skill gaps?

Our Skill Gap Survey

Based on these questions we developed a tailor-made skill gap survey. Our survey consisted of 12 questions, 6 of which were closed-ended and 6 of which were open-ended. While the closed-ended questions served to (in-)validate the previous experiences and observations of our task force members, the open-ended questions allowed the survey participants to provide additional comments and input on their needs and challenges.

To maximise clarity, coherence and ease of understanding, our survey questions were cross-checked and finalised in close cooperation with the members of our task force. We then short-listed 50 of MASSIA's member companies, out of which 33 agreed to participate in the survey. We administered the survey through face-to-face interviews, which allowed us to not only gain insights with regard to our initial set of questions, but to also probe for additional information where needed. This is what our survey looked like:

9. Please state the number of employees presently working in your company:

10 th /12 th	ITI	Diploma	Engineering	Women	Total

10. Please state the number of current job openings (per trade/branch):

	ITI			Diploma	Engineering
Trade/branch					
Number					

11. Please state the number of job openings for the next 1–3 years (per trade/branch):

	ITI			Diploma	Engineering
Trade/branch					
Number					

12. What kind of support services do you expect from MASSIA? Please tick one or more options:

1. Making ITI students industry-ready	1. Facilitating linkages with relevant ITIs	
3. Improving the skill sets of current employees	4. Facilitating linkages with other training providers	
5. Offering periodic refresher courses/ short-term courses for job entrants	6. Facilitating career guidance activities for ITI students	
7. Providing a platform for easy recruitment	8. Others (please specify):	

If you are interested in the full set of survey questions, please get in touch with us.

Our Skill Gap Analysis

To analyse the survey results, we compiled the data from our face-to-face interviews in a digital format. We then related the answers we had received on each of our survey questions to the total number of survey participants as well as to their respective sectors and cross-referenced them with the additional statements and explanations given during the face-to-face interviews. For some of the survey questions, we conducted follow-up phone interviews with a few of the survey respondents to triangulate our findings.

Our analysis revealed that:

- 1 Most entry-level jobs offered by the survey respondents are directed at graduates from Industrial Training Institutes (ITIs).
- 2 ITI graduates, while fulfilling the formal requirements for the available job vacancies, often do not have the technical skills required for the vacancy at hand.
- 3 The most sought-after technical specialisations include the *Turner, Fitter, Machinist, Electrician and Computer Numerical Control (CNC) Operator* trades.
- 4 The most sought-after soft skills include communication skills, the ability to work in a team and the ability to self-motivate.
- 5 50% of the survey respondents have no direct ties with ITIs or other training providers.
- 6 The lack of an effective platform for identifying and recruiting qualified youth is one of the key obstacles faced by the survey respondents.
- 7 67% of the survey respondents are unable to match the stipends offered to apprentices by larger companies.
- 8 90% of the survey respondents expect MASSIA to support them in establishing linkages with ITIs and other training providers and in creating short-term courses to upskill new job entrants in accordance with their needs.



What We Achieved

Based on the results of our skill gap analysis, MASSIA decided to establish a professional skill development centre, which has since worked towards addressing the identified skill gaps and overarching challenges in its member companies. Over a period of 6 months,

5

ITIs and 30 of MASSIA's member companies participated in networking events organised by MASSIA's skill development centre.

5

new partnerships between MASSIA's skill development centre and local ITIs were forged.

30

youths from the Marathwada region were upskilled in accordance with the identified skill requirements of MASSIA's member companies.

1,000

youth from the Marathwada region participated in career guidance sessions organised by the MASSIA skill development centre.



What We Learned

Our skill gap analysis has proven to be an effective tool for improving understanding of both the existing skill gaps as well as the overarching challenges faced by MASSIA's member companies in identifying, recruiting, training and retaining young talent. While implementing this pilot measure, we learned that ...

... information is key.

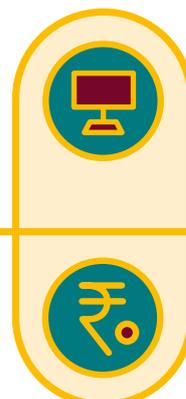
Our analysis showed that skill gaps can be caused and aggravated by various factors. In the case of MASSIA, the lack of a suitable platform for identifying and recruiting qualified youth was identified as one of the key challenges. This information encouraged MASSIA to establish a skill development centre and direct its main efforts towards facilitating partnerships between MASSIA's member companies and relevant ITIs.

... skill gap surveys are best administered face-to-face.

Our method of administering the skill gap survey through face-to-face interviews entailed considerable administrative efforts. In contrast to a simple online survey, however, this method enabled us to probe on different aspects of the survey questions and gain an in-depth understanding of the challenges faced by MASSIA's member companies.

... SMEs need additional support.

Our analysis revealed that many of MASSIA's member companies struggle to match the stipends offered to apprentices by larger companies. As a result, few apprentices are interested in their apprenticeship offers. MASSIA's skill development centre can help to address this issue by supporting MASSIA's members in applying for reimbursement for parts of the apprenticeship stipends under the National Apprenticeship Promotion Scheme (NAPS). Additional financial support might, however, be the only means to make SME-based apprenticeships more attractive to young talent.



Contact

If you, too, want to improve the skills of your labour force by making use of India's untapped human potential and if you, at the same time, want to contribute to a brighter future for India's youth and economy, get in touch with us.

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