Chapter 9
Attractiveness of Vocational Education and Training in India: Perspectives of Different Actors with a Special Focus on Employers

Matthias Pilz and Muthuveeran Ramasamy

Abstract India is a country with a growing population and significant economic expansion. Therefore, skilling young people so they can contribute to this economic expansion is now a crucial goal for educational policy levels and the actions of educational institutions. Yet, apart from general statements concerning the 'lack of attractiveness of vocational education', little research-informed policies and practices exist about this important topic in India. In addressing this gap, this chapter draws upon studies undertaken so far on the issue of the attractiveness of VET in India. Its analysis focused mainly on the perspective of employers, but also on those of students and their parents and vocational teachers. The focus is on the Industrial Training Institutes (ITIs), which are important vocational education institutions in India. These institutes account for the largest share of formal VET provisions in India and are administered by either the state or private sector. Interviews in South India with employers of ITI graduates are described and discussed. The comparison with findings focused on the other stakeholders indicates that even when the motives are different; the attractiveness of VET in India is very low. The study explores three major influencing factors: The quality of VET programs including employability, payment and productivity and career perspectives in combination with further training. Then some means are advanced by which it might be possible to elevate the standing of vocational education through changes to the current situation on the policy level and the individual ITI and employer.

Keywords Vocational education and training · Attractiveness · India · Industrial Training Institutes · Employers · Labour market · Employability · Quality of training · Standing · Productivity · Investment in training

M. Pilz (✉) · M. Ramasamy
University of Cologne, Cologne, Germany
e-mail: matthias.pilz@uni-koeln.de

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Introduction

For more than a decade, vocational education and training (VET) in India has been of particular interest for different protagonists. Countries and international organisations engaging in foreign aid and economic development have been active in the field, trying to push skill development by different means and initiatives (see e.g., Dar, 2008; World Bank, 2017). Simultaneously, the Indian government has shown a major interest in skill development through formal VET (Agrawal, 2014) to engage and utilise the potential of a young and ever-growing population. This young and expanding population offers a large potential for growth and prosperity, on the one hand, but could indeed turn into a threat to economic and societal cohesion if India fails to develop the skills of its young labour force and provide opportunities for decent work (Mehrotra, 2014). Every year, approximately 12–13 million young people leave school in search of some vocational education, training or work (British Council, 2016). But even though 59% of the population is in the working- age group of 15–54 years (UNDP [United Nations Development Program], 2019), a shortage of skilled workers is evident (Agrawal, 2014).

This mismatch between supply and demand particularly affects the intermediate skill sector of skilled workers below the academic level (see Marsden & Ryan, 1995) which is also growing in India. One reason why the demand for skilled workers cannot be met, despite the large number of young people looking for good employment, is the alleged poor quality of formal VET (Tara et al., 2016) and the lack of willingness of companies to invest in training (Pilz, 2016a). However, how attractiveness is related to quality and company participation, among other things, is largely unexplored for India.

In this chapter, therefore, the attractiveness of VET in India will be presented and discussed on the basis of empirical findings. The focus is on the employers' perspective, but is framed by the interaction with other stakeholders, especially the students' perspective. The focus is on the Industrial Training Institutes (ITIs), which are important VET institutions in India. First, the Indian vocational training system with a special focus on ITIs will be outlined very briefly and then a theoretical concept for the study of attractiveness will be introduced, followed by the presentation and discussion of our own empirical findings.

Brief Overview of Formal Vocational Training in ITIs

Vocational training in India may start from grade nine onward and goes on into post-secondary education, depending on the type and level of course offered (UNEVOC [International Centre for Technical and Vocational Education and Training], 2018). It is not associated with higher education but refers to certificate-level training in a variety of craft skills. Entry requirements differ from course to course, however, a successful completion of grade eight is a minimum requirement for all courses

except for some schemes targeting the informal sector (MSDE, 2018). In the main, VET is provided under two schemes: the Craftsman Training Scheme (CTS) and apprenticeship training under the Apprentices Act (Wessels & Pilz, 2018).

The most significant scheme in terms of the number of students for industrial trade training is the CTS, which was introduced in 1950 by the Indian government (MSDE, 2018). Courses are offered at governmental or private Industrial Training Institutes (ITI) that provide training programs of 6–24 months duration, depending on the occupation and course. Presently, there exist about 14 thousand ITIs with a capacity of around three million state-sponsored positions (MSDE, 2018). Privately financed and managed ITIs number about 12 thousand (MSDE, 2018), a major part of them accredited by the National Council for Vocational Training (NCVT) (Rao et al., 2014). Courses address 126 occupations, of which 73 are classified as technical and 48 as non-technical. The CTS scheme has a focus on practical instruction that constitutes 70% of the duration of the training program. Entrance requirements vary from successful completion of grade 8–12, according to the respective occupation (Wessels & Pilz, 2018). After completion of the course, students may receive a National Trade Certificate by the NCVT if they successfully complete the exam (MSDE, 2018). Teachers at ITIs are trained for 1 year under the Crafts Instructor Training Scheme (CITS) in 12 ATIs and other ITIs and training centers that are affiliated with the NCVT (MSDE, 2018).

While the number of ITIs has increased over the past years (see Rao et al., 2014; Wessels & Pilz, 2018), there are still not enough positions to meet the demand for skill training. Both governmental and private ITIs face serious challenges in areas such as teacher qualification and provision, equipment, learning content and curricula design (Dar, 2008). These factors result in overall poor training quality and a lack of employability of students who graduate (Dar, 2008; Tara et al., 2016; Jambo & Pilz, 2018).

Apprenticeship training is offered in a range of schemes under the Apprentices Act. It combines training in institutions and at the workplace, following a dual training approach adopted in many countries that combine educational experiences in workplaces and the training institutes. The Apprenticeship Training Scheme (ATS) offers a range of training options in trades and enterprises, addressing occupations designated by the government or 'optional trades' suggested by employers under specific requirements (MSDE, 2018). The scheme was initiated in 1961 under the Apprentices Act and was fashioned to meet the needs of industry and structure informal training according to specified standards. The main goal of this scheme was and remains to involve employers in VET and utilize industrial workplace settings for practical training, as institutional training was considered insufficient to generate the full set of practical skills needed for employment in those occupations (MSDE, 2018). The legal regulations governing apprenticeship training have been modernized iteratively to adapt the program to meet stakeholder requirements (Saxena & Gandhi, 2014), the last revision being in 2014 (MSDE, 2018). The scheme targets two groups of apprentices: (i) those who enter the program at a minimum age of 14 and (ii) after successful completion of grades 8–12, depending on the kind of training offered (Wessels & Pilz, 2018). There is a wide spectrum of 259

occupations in 39 areas (Saxena & Gandhi, 2014). Under the Trade Apprenticeship scheme, 360,000 positions are available per year (Wessels & Pilz, 2018). Trade apprenticeships fall under the responsibility of the MSDE as they form part of VET.

However, the significance of the program is questionable. Judging by the numbers and its acceptance by young people in search of training, it has proven rather unsuccessful. The number of positions offered is insufficient compared to the annual demand from young people in need of VET provision, as well as compared to the size of the economy itself (MSDE, 2018). Also, the apprenticeship schemes are not even utilized fully, as each year a large portion of the available positions and remain unoccupied. In terms of acceptance, the scheme's targeting of graduates from higher education programs fares even worse, as more than half the offered positions remain empty (Wessels & Pilz, 2018) compared to 30% for the Trade Apprenticeships (Rao et al., 2014). The MSDE (2018) notes that more than 80% of all the apprentices come from the ITIs and that apprenticeships are dominantly provided in engineering, while the service sector, though an important driver of the economy, does not provide training in substantial numbers.

Theoretical Concepts of Attractiveness of VET

In many countries, the attractiveness and image of VET have been the subject of intensive policy debates over many years (see the contributions in this volume and for example the special issue in the Journal of Vocational Education and Training (Vol. 72, Issue 2, 2020) or Ratnata, 2013; Hao & Pilz, 2021), yet confusion persists about the concepts involved and the terminology used to describe them. In a report for CEDEFOP, Lasonen and Gordon (2009, p. 31) conclude that "[T]he nature of VET attractiveness is a political concern that has not been thoroughly analysed in research."

Analysis of the image of VET in the national and international literature also suggests that there is no standardised set of concepts and definitions. Discussions of 'image', for example, use a range of alternative or subordinate concepts, including 'value', 'status', 'attractiveness', 'reputation', 'recognition', 'standing', 'prestige', 'acceptance' and 'esteem'. This confusion is particularly well illustrated in a selected bibliography published by the German Federal Institute for Vocational Education and Training (BIBB) and UNESCO/International Centre for Technical and Vocational Education and Training (UNEVOC) of research into the attractiveness of VET. The literature list is a striking illustration of the immensely varied nature of the discussion that reflects sets of national, geographical and local factors that shapes how VET is valued.

We provide at least an overview of some particularly significant approaches to the attractiveness of VET. A recent study by the German Federal Institute for Vocational Education and Training (BIBB, 2015), for example, uses the concepts of 'attractiveness' and 'esteem': 'attractiveness' relates primarily to the perspective of training companies and the reasons why companies engage in training, while

'esteem' is interpreted as the view that society as a whole, and individual young people within it, have of vocational training. In his international study, Winch (2013, pp. 95–99) also uses the concept of 'attractiveness', which he interprets as the advantages that individuals can access through vocational training. In this context, parity of esteem between general and VET is of particular importance. Winch (2013) also takes an economic perspective and investigates the economic advantages that vocational training confers. So, he distinguishes the two different perspectives, that VET is attractive to nation states and its attractiveness to individuals. In the CEDEFOP report alluded to above, Lasonen and Gordon (2009) also address 'attractiveness', of which they say (p. 76): "VET attractiveness has never been defined in research literature so far, so a definition is a good place to start". Broadly, the view taken here is that of the individual, with particular reference to access to and quality of vocational training courses. Lasonen and Manning themselves (2001, p. 117) also, however, explicitly address the concept of 'attractiveness': "The terms 'attractiveness' and 'esteem' are related to behaviour or to attitudes held by individuals or groups. These are socio-psychological concepts, which in this context, except for partial interventions, go beyond the scope of our investigation. It is more appropriate, therefore, to refer to the 'standing' of vocational education, which is an objective term related to educational levels and achievements, even if complex in its social and cultural context. We can analyse essential educational aspects of the 'standing', for instance, the provision and role of vocational education as a basis and the response of the main beneficiaries of vocational education (young people; employers) as an effect".

In considering the literature in this area, CEDEFOP (2014, p. 31) concludes: "The concept of attractiveness is complex and difficult to define. Definitions in literature centre on two themes: the subjective nature of attractiveness (in the eye of the beholder), and the factors and characteristics that impact on attractiveness, programmes to the labour market, quality assurance, recognised qualifications)." We shall, therefore, distinguish here between a behavioural (i.e., subjective) approach and external factors. External factors are also addressed, with an emphasis on the role of stakeholders (CEDEFOP, 2014, p. 31): "For Leney (2004), attractiveness depends on stakeholder opinions; the concept of attractiveness implies that opinions and priorities of various stakeholders have been heard and incorporated into VET policy and programme design. Improving the quality, transparency and accessibility of the education and training on offer may raise its attractiveness, provided such measures are responsive to stakeholder needs."

In summary, there is an extremely wide divergence between the approaches taken to these issues. The concepts – which, of course, also elsewhere – can, therefore, only be interpreted contextually (i.e., locally or within nation states). Accordingly, 'attractiveness' and 'value' include a pull-factor that reflects the particular benefit that potential stakeholders – particularly the providers and potential consumers of training – derive from their involvement in training. 'Status', on the other hand, is a more general, socially-constructed term, often perceived in relation to a comparator, such as general education. Much the same is true of the concepts of 'reputation', 'standing' and 'prestige'. 'Recognition' and 'esteem', meanwhile,

allude to the policy level and to aspects such as how vocational training can achieve parity with general and higher education through regulated accreditation and certification.

To enable us to structure and reflect these different approaches, we shall take elements of a stakeholder model-oriented approach, which enables individual behaviours to be linked to external factors. Specifically, we shall be using and further refining the stakeholder approach to the benefits of VET formulated by Berger and Pilz (2010). The authors define four groups in their approach: (i) individuals seeking training; (ii) companies providing training; (iii) the labour market as an economic dimension; and (iv) society at large. With regard to the question of the image, VET enjoys, this approach can be tailored in such a way as to enable 'attractiveness' to be linked directly to an individual perspective of the sort already familiar from research into career choices (CEDEFOP, 2011a). From this perspective, 'attractiveness' may, then, also include aspects such as potential earnings, career opportunities within training companies and progression within the training system, job security (avoidance of precarious employment contracts), and "fulfilling jobs" (defined, for example, in terms of varied and challenging activities) (CEDEFOP, 2011b; Kopatz & Pilz, 2015).

'Attractiveness' may also, however, be interpreted from a company perspective. Companies rely on having skilled employees who can be deployed flexibly, so investing in training or employing skilled workers is likely to be of great economic significance to employers and companies. Only well-trained employees may be able to meet the challenges of modern production processes and complex products (Pilz & Li, 2014). The quality of VET is, therefore, a vital component of its 'attractiveness' to companies. Creating a link between pay and productivity is also important to companies: at all levels of training, pay levels must reflect employee performance in a long-time perspective (BIBB, 2015). Meanwhile, from a company perspective, vocational training processes will be 'attractive' if they generate company loyalty and, therefore, keep labour turnover within acceptable limits (Pilz & Alexander, 2011).

The attitude of society or societal sentiments must also be considered, as this shapes the national discourse about VET. In our view, the 'status' and the 'prestige' of vocational training need to be seen from a sociological perspective: the social status of individuals who have completed vocational training must be considered in relation to the status of those who have completed other kinds of education and training. In many societies, academic education and training enjoy a higher social status than VET (Young & Raffe, 1998). The reasons for this are partly historical in nature: for example, historical studies demonstrate that, in some countries, vocational training has never been as widespread as academic training and that, in some cases, it has low status and is seen as a way of supporting disadvantaged groups (Billett, 2020). Cultural and/or religious factors also play a part, for instance in the case of manual occupations in India (Singh, 2001 and see below). However, the identity of an occupational group and socialisation within that group are also crucial to 'esteem': studies of occupational structures and rituals demonstrate how important these are within the social context (Deissinger, 1997).

The public or state level is also crucial, whether because the state has authority over the regulation and inspection of vocational training or because the state itself is responsible for providing training. Another important and related perspective is that of private training providers. The crucial aspect from the state's point of view is that vocational training systems are well-regulated and transparent. This aspect is aligned with the state providing, or at least regulating, the certification of vocational qualifications (Busemeyer & Trampusch, 2012; Pilz, 2016b), enhancing its authority and making VET systems more attractive. From the point of view of the state, achieving parity of esteem between general and VET has the advantage of offering future generations a broad range of optimally differentiated educational provisions that can be built on and used as the starting point for further education and training (Young & Raffe, 1998). That is, it seeks to address the social and economic needs of the nation state. Establishing a link between vocational qualifications and employment legislation and the law on collective bargaining gives the state opportunities for influencing training as well as for generating tax and social security revenues. This is in contrast, for example, with the informal economy, where competencies are also widely acquired informally, outside of both public and private educational systems (Sodhi & Wessels, 2016; Pilz & Wilmshöfer, 2015; Gengaiah et al., 2018; Pilz et al., 2015).

From the above theoretical context of the attractiveness of VET, it is clear that there is no standard set of definitions and concepts. Therefore, we provided an overview of significant approaches to the attractiveness of the VET from national and international literature. It also discussed various aspects and actors such as individual, company, labour market and society those involved in the attractiveness of VET. The existing research findings from the perspectives of students and their parents and teachers are discussed in the next section, later on we will present results from a study focussing on the employer's perspective in detail.

Existing Research on Attractiveness of VET in India

To address this gap in understanding the bases for the attractiveness of VET in India and how it can be promoted, the central question is of how ITIs are perceived by different actors.

In a study, Ajithkumar and Pilz (2019) examined the attractiveness of ITI education among parents and students. Two interview guides were designed with the primary objective of revealing perception about attractiveness to students of ITIs pursuing trade fitter, electrician and beauty parlour, and their parents. Data were collected from students and their parents from three ITIs in (in the city of) Maharashtra state, which includes Mumbai and three ITIs (one in city and two in regional areas) in Haryana state, which surrounds Delhi. Overall, 42 students (14 girls) were interviewed, and 20 parents participated in the survey.

The analysis of the collected interview data shows that the perspective of participants of the research study are widely in line with the stakeholder approach which

dominate the perception of attractiveness. Individual attractiveness and attractiveness to labour market dominate these students' perception while social status is heavily emphasized by the parents. The data show clearly that these parent and student informants interpreted attractiveness as a complex issue often perceived in relation to a comparator, such as general education. These parents and students define a concept of attractiveness as the sum of the collective attitudes that influence individual attractiveness, social status and attractiveness to the labour market. The responses indicate that the labour market relevance of ITIs is one of the most important influences on these students' decision-making, alongside personal interest in the subject. Perceptions about the likelihood of finding employment after completing ITIs are found to be correlated with relative esteem. The perception of employment opportunities and preparation for self-employment are important criteria for seeking admission to ITIs. Many of the student-respondents associated, on the one hand, college degrees with theoretical knowledge and unemployment and, on the other hand, by contrast, ITIs to skill and earning. All the student respondents said that at the micro-level, the skills acquired from ITIs will contribute to self-sufficiency and improvement of the standard of living in rural villages or in urban settlements. They reported if they fail to get employment in industries, the skills gained through ITIs will help them start their own business. The family emerged as the most influential group in student decision-making. Most of the student-participants described having full support from their parents for the programmes as they saw it as an opportunity for employment for their children which should be pursued. But the interviewees also mentioned that public perception persists in thinking that continuing to higher education will improve one's status, while ITIs are thought to produce simple labourers. The majority of these parents considered that a university degree enjoys a higher reputation in the broader society but at an individual level they are satisfied that their children have joined ITIs and will start earning soon after completing the course. But the interview findings also revealed that there is a positive attitude among parents of these ITI students towards ITIs knowledge and its importance. The parents confirmed that they guided their sons/daughters to take a decision to join ITIs and they have found a positive reception from them. The reasons behind this reception are the high rate of unemployment among the university graduates and perceived chances of finding better job opportunities after ITI graduation, and opportunities for self-employment (Ajithkumar, 2017).

In another study, Jambo and Pilz (2018) examined the perspective of those active in the VET sector itself, and specifically that of ITI-teachers. In detail, the purpose of the study was to examine the teachers' understandings of VET's attractiveness in India in relation to their situation as teaching staff. In doing this, the individual's point of view can be opened, and self-concepts, opinions and attitudes can be explored. Data collection was undertaken in the form of semi-structured guided interviews. A total of ten ITIs were visited – four in New Delhi, three in Mumbai and three in Coimbatore. The number of teachers available for the interviews differed between the various ITIs. In total, 45 interviews were conducted. The findings show that many teachers see ITIs as an adequate alternative to other educational pathways. As main advantages, they stated the practical elements of VET and the

good opportunities for self-employment afterwards. Some of the interviewees also claimed better opportunities for ITI graduates in the labour market in comparison with university graduates, but there were other teachers who stated that university graduates have a higher reputation within society due to their education and, therefore, higher salaries afterwards. Employment opportunities for ITI graduates were perceived positively. The interviewees in this study mentioned many job opportunities and students benefitting from the job fairs and job interviews provided by the institutes. From these teachers' perspectives, students, parents and companies seem to be confident overall with the training provided at the institutes. The teachers assumed that one of the main reasons for the confidence is the fact that they do not charge high fees when compared with other educational institutions.

The study also detected the awareness of their own situation as ITI-teachers. Many of the teachers interviewed had an ITI education themselves. The salary they got paid as a teacher was often better than what they were paid or would be paid in the industry. Interviewees also liked having a teaching task that is important for society. In this context, some of the teachers did not differ greatly in educational level, age cohort or social background from their students. For instance, teaching ITI students, who generally have a lower educational background than university students, would not make a difference to the standing of the teacher. Thus, their view is that the work of ITI teachers has the same requirements and acceptance as that of other teachers. Their reaction to their profession was positive, especially because of the practical nature of the training. Some interviewees even perceived that VET had a higher standing in comparison with other reference groups, such as teachers in general education. They perceived a higher reputation because they taught in the field of VET which they believed was of higher importance. On the other hand, comments about the poor reputation of ITI teachers were also made. Reasons were the fact that vocational education had a bad standing in society. The majority of teachers considered that vocational training does not enjoy a high reputation in broader society, although it is evident that those who have completed a course of training are, at an individual level, satisfied with the employment they obtain and gain respect from their families. There is, therefore, a discrepancy here between general public opinion in India and the individual opinion of these teachers from their own experience. It is noteworthy that the teachers work predominantly with young people and their parents are from the lower social classes (see, for example, Ahmed, 2016), who take only their own situation or immediate environment as the benchmark when assessing the success of their career.

The Perspective of Companies

While previous research has focused on the individual perspective of teachers and students and their parents, the perspective of companies in relation to attractiveness has been studied only rudimentarily in India. Several studies report that companies are not satisfied with the qualification services of ITIs and they complain about the

high training need after they hire ITI graduates (Rao et al., 2014; ILO, 2003; Dar, 2008). However, a more detailed study on the assessment of the attractiveness of ITIs by companies is not yet available. Therefore, a study with precisely this specific research focus was initiated and implemented in India by the authors.

We chose to collect data from employers those recruiting ITI graduates and capture their general attitudes towards ITIs graduates as perceived by the informants. Data collection was undertaken by using a semi-structured interview guide comprising an open-ended questionnaire for the interviews with employers. The open-ended questions ensured that we gathered the required data and also with offering better scope for deeper investigation and probing (Patton, 2002).

Interviews were conducted with six large size industry human resource managers – four in Chennai, one in Coimbatore (Tamil Nadu) and one in Bangalore (Karnataka) in South India. All three cities fall under the Metropolitan category and are covered with a wide range of heavy and light industries such as electronics, telecommunications, aerospace, pharmaceuticals, automobiles, machinery manufacturing and textiles. The selection process was realized by the researchers' contacts with teachers in the ITIs in the respective regions and local partners. Two employer interviews were in person (in Chennai) and the four interviews were electronically due to the pandemic travel restrictions to other regions in 2021.

Among these six employers, two are automobiles, three are machinery manufacturing and one is electronic engineering industries. In line with a literature analysis on the VET attractiveness by employers, we adapted the stakeholder approach developed by Berger and Pilz (2010) and already transferred to the Indian context by Ajithkumar and Pilz (2019) (see above). The two major elements from an employer's perspective "Skilled and versatile employees (high-quality training)" and "Cost-effective pay (related to productivity)" had been operationalized and transferred into interview questions by the following categories: quality of ITI graduate employees, career opportunities for ITI graduates in the labour market, quality of training provided in ITI, cost factors in employing ITI graduates. The questions include questions directly addresses special aspects like, "What are the reasons your company hires ITI graduates?" or "If you employ ITI graduates, are you satisfied with the quality of training received by them?" and more open questions relating to the overall topic like "What are the strengths and weaknesses of ITI education in your opinion?" or "If you compare the status of a diploma degree and an ITI degree or academic degree, what is the difference and why?"

All the interviews were recorded with the consent of interviewees. The recordings were transcribed and analyzed manually by the researchers.

Results and Discussion

The findings of the employer interviews revealed that employment opportunities for ITI graduates are perceived positive attitude, better career opportunities among all the interviewed employers and also the ITI graduates have a high demand for in the

market. Further, a majority of the interviewees mentioned the issue of supply and demand of VET graduates in the labour market. For instance, a large number of diploma and engineering graduates are employed at the level and/or position of ITI graduates which indicates the supply-side constraints and poor quality of ITI graduates and the employability of diploma and engineering graduates. It becomes clearer from our employers interviews that employer(s) also view ITIs as low standing when compare to general education. The findings of the study are described and discussed under four key thematic areas: (i) Career Opportunities, (ii) Employability and Training Quality, (iii) Low standing of VET and (iv) Economic factors in the following section.

Career Opportunities

The interviews with the employers revealed that the ITI graduates have better opportunities in the labour market in comparison with the diploma and university graduates. ITI graduates have higher demand in the labour market upon completion of the course successfully.

> Yes, 100 percent they have demand in the job market. Even compare to engineering graduates, ITI students have a lot of scope in the job market. (HR Manager, Automobile-1, Bangalore)

On the other hand, employers stated that sourcing ITI graduates itself is a challenging task for companies as the ITI graduates are in high demand in the market, for example:

> In the labour market, they (ITI graduates) have a lot of benefits and job opportunities, currently getting the ITI apprentices itself is very difficult. Next year we want around 1600 ITI candidates, but it is a very difficult job to source them. (HR Manager, Engineering-1, Bangalore)

One of the main reasons for difficulty in getting ITI graduates is due to supply-demand issues which make employers especially in large companies, recruit ITI graduates, even without assessing their skills and knowledge and only for temporary use. One employer stated:

> Only 50 per cent of the ITI trainees pass and come out (from ITIs). The pass out (rate) is very less now. So, most of the companies will go directly to ITIs and recruit persons from the ITI institute itself. They are not doing any interviews, they will go and what are the persons available, they will take and use for their industry. (HR, Manager, Manufacturing 2 – Chennai)

The employer interviews revealed that, on the one hand, employment opportunities for ITI graduates are perceived to promote a positive attitude among the employers that there are better career opportunities and high demand in the market. Better career opportunities have been considered as one of the indicators of parity of esteem (Jambo & Pilz, 2018). In the labour market outcomes, it is evident that vocational education provides a smooth transition into jobs early in the career attributes to a positive evaluation of the VET system (Di Stasio, 2017). Nevertheless, a

negative attitude may emerge as a result of the lack of desired career progression that VET students may experience later in their life (Russo et al., 2019, p. 3). Such issues mainly arise for example, when the ITI graduates are not equipped with skills needed by the employers, that impacts upon their employability and prospects for promotion.

Despite, the ITI graduates has better employment opportunities and demand in the labour market, they are lack in acquisition of knowledge and skills which is one of the most crucial determinant factors for employability (Neroorkar & Gopinath, 2020). Therefore, the major aspects of quality of training received by ITI graduates and skill mismatch problems are discussed in the following section in detail.

Employability and Training Quality

The companies in which the interviews were conducted are providing in-house training to their newly recruited ITI graduates for a stipulated period as they are not skilled enough to be deployed immediately in the production units. A HR manager from the automobile industry said:

> We are giving the training more than whatever is required. We have our manufacturing process, but whatever the quality of the student getting, it is not enough to cater our requirements. Skill level is very less, (…) we are giving them one-week training and we are engaging them in the production line. (HR Manager, Engineering 1, Bangalore)

The correspondence between VET and the labour market rests largely on the knowledge and skill that VET transfers to the students and then in turn into the labour market (Tejan & Sabil, 2019). But, VET is unable to adequately address the issue of employability and inadequately prepare young people for the labour market.

The ITI graduates are reported to be lacking in both theoretical knowledge as well as practical skills. The employers stated that ITIs do not have the required infrastructure to train their students adequately or in ways that make them ready for employment upon graduation. They are reported to gain more knowledge and skill only when they are doing the apprenticeship in companies. Further, these HR managers claim that ITIs lacks in training infrastructure need for students. For example, many of the ITIs does not have proper workshops (Tara et al., 2016).

> So, they (ITI graduates) are not strong at theoretical as well as not strong in practical. They are getting more experience while they are coming for the apprenticeship training in companies. Many ITI does not have the proper infrastructure. (HR Manager, Manufacturing 1, Coimbatore)

Another employer stated that ITI graduates are lacking job readiness and lacking in technical know-what and know-how. The ITI students are hardly getting practical learning at their institutes, it was claimed.

> They are not ready for industrial fitment. If it is machining, they are not aware of what kind of machine they operating, they do not have any exposure during their institution on practical. They are first time coming and see the machines. So, they do not know how to operate the machines itself. (HR Manager, Manufacturing 1, Coimbatore)

According to human capital theory, employability represents a means for the individual to improve their attractiveness to the labour market (Berntson et al., 2006). The majority of the employers interviewed, mentioned that the quality of training received by ITI graduates was very poor in relation to their enterprises' needs. Similar findings in other studies (see Mehrotra, 2014; Kumar, 2016), traced students who graduated from VET institutions lack application-oriented knowledge, practical skills and find difficulties to meet the demand of industrial skills and a resulted that ITI graduates being unemployed. It mirrors the factors that most of the VET institutions do not have standards and are heavy theory centred rather than practical components (Tara et al., 2016). However, ITI graduates who undergo apprenticeship training in companies have the opportunity to get hands-on practical training, exposure to working in a company, knowledge of company work culture and the latest technology (Tomlinson, 2012; Neroorkar & Gopinath, 2020).

Further, employers' interviews have revealed that a growing proportion of diploma and engineering graduates are undertaking forms of employment that are not commensurate to their level of education and skills. This raises the issue of the balance of supply and demand of VET graduates in the labour market. This situation prevails due to the poor supply of graduates from the ITIs and the employability of diploma and engineering graduates. It also raises concern about the greater potential for displacement between levels of education and occupational position. Consequently, the diploma and engineering graduates may also experience a potential mismatch between their qualifications and their returns in the job market (Tejan & Sabil, 2019; Schneider & Pilz, 2019).

> Nowadays we are getting a greater number of Engineering graduates and diploma holders, but ITI (graduates) are quite difficult to attract them to industry. The number of enrolments (in ITIs) is also coming down year by year. (HR Manager, Manufacturing 1, Coimbatore)

The lack of availability of ITI graduates in the market and the oversupply of technical engineering graduates and diploma holders who failed to meet the skill needs of the industry in their respective fields are pushed to undertake manual work and are placed in a low-level employment position in the company.

> Now even Engineering people are working as 'operators', working as an apprentice. Because we have huge skill gap. The pass out ITI (students), the percentage is declining year on year. So, to bridge those skill shortages, diploma graduates or engineering graduates were hired as operators and given them ITI salaries. (HR Manager, Manufacturing 2, Chennai)

So, it is suggested that the expansion of higher education has produced numerous graduates, but the majority of them lack the skills needed for acquiring jobs in the labour market (Khare, 2016). Another consequence of such higher education on a mass scale is leading to declining economic returns for graduates (Winch, 2013; Khare, 2016). This can be illustrated by the following statement from a HR manger.

> For one position, I may recruit three ITI trainees. So, the ratio may differ for each company. But I may not have so many ITI people, What I do is I recruit a diploma person or engineering person for that ITI position, I train them and I give them ITI salary. (HR Manager, Automobile 2, Chennai)

The VET system in India, as argued by experts has been supply-driven and demand-side constraints are not adequately addressed (see Singh, 2012; World Bank, 2008; Mehrotra, 2014). Further, the mismatch between the skill requirements of employers and the skill base of job seekers triggers employment problems, which was acknowledged in the interview data from the HR managers.

> (University) Graduates are getting in large numbers where the requirement is very low. If you see, the demand for ITI is large but the supply is very low. It's a vice-a-versa. (HR Manager, Manufacturing 1, Coimbatore)

Cooperation between education institutions and companies is likely to be necessary for quality improvement and the development of the study programs and practical skills in a real production environment (Kantane et al., 2015). For example, one HR stated:

> Some of the industry gives training directly to them, also providing infrastructure and other facilities. They are providing training and also recruiting directly from the same ITI. I think some of the ITI does not have the facilities. (HR Manager, Automobile 3, Chennai)

In India, around 60% of the government ITIs have been adopted by corporate companies under the public-private partnerships scheme (Neroorkar & Gopinath, 2020). The companies often upgrade the infrastructure and provide training in the latest technology and other assistance to the ITIs. Such measures may help ITIs up-to-date industry needs, advancement in technologies, bringing in new methods and knowledge can be imparted to ITI graduates. The ITIs partnership with industries at the local can assist VET provision more effectively meets local needs and increase its efficiency and attractiveness it is proposed by a supra-government agency (CEDEFOP, 2014).

To sum up: One of the biggest problems that India faces is skill mismatch; many industries are suffering from a lack of skilled workers and this skill mismatch leads to entrenched levels of unemployment (Sanghi & Srija, 2014). Further, a general lack of connection between the training institutes and industry leads to a lack of exposure to modern technologies among trainers and instructors. However, the perception of employability is likely to depend on the economic situation and particularly the supply of jobs in the labour market and employment mobility. The above discussion becomes clear that many employers are hiring ITI graduates as apprentice trainees and provide them in-house training for a period of 1–2 years. It was also observed that companies had more opportunities to train their employees in a corporate training center. Small and medium companies, however, mostly trained their new employees through on-the-job training mode due to limited training facilities and cost factors besides the fact that such enterprises expected their employees to familiarize in their work as quickly as possible. Having discussed aspects affecting the companies more directly, the interview partners also reflect some issues on a more general basis, including the perspectives of the other stakeholders and also from a society's perspective in general. We summarize these opinions under the term of "low standing of VET".

Low Standing of VET

These employer representatives also view ITIs as low standing in comparison to other general education and ITI graduates are only meant to perform the manual work, are placed in the lower work position and treats as blue-collar workers in the company. This reflection is similar to other stakeholders: students, parents and teachers (see existing research findings discussed above). From the perspective of HR managers interviewed, in most cases, the employers seeking workers must either focus on a relatively small group of more theoretically qualified ITI graduates or on unskilled assistants who cannot accept challenging tasks. For example, the HR manager states as follows:

> The ITI mostly is related to helper work only. So, it's kind of low level of work in the company, they have to do the basic work. So ITI persons only will fit those positions. (HR Manager, Automobile 1, Chennai)

These findings also illuminate some divisions in the perceptions of students and the companies.

> They want to be a supervisor or as an engineer and they do not want to be a blue-collar worker. In ITI mostly, we treat them as blue-collar workers, any of our people do not like that. (HR Manager, Manufacturing 1, Coimbatore)

Often, parents are one of the most influential factors in student's decision in joining ITIs (See Ajithkumar & Pilz, 2019) as they believe that their children those poor in academics will have a better career opportunity on completion of ITI course and will also support the family by their earnings. For example, one HR manager mentioned:

> Because, they are scoring the lowest mark, they are not getting the opportunity to study 11th or 12th, due to their family situation they are joined ITI. If they completed ITI, they will go for labour work like driver or helper. They have no ambition, no purpose to study ITI. Only below 10 per cent having the ambition to do ITI. 90 per cent of students are pushed to ITI. There are no options for them. (HR Manager, Automobile 1, Chennai)

Students who have less academic performance ability and hails from lower social-economic backgrounds are mostly take up vocational education and often, their parents were less educationally qualified (Kumar et al., 2019). The above quote affirms that VET is viewed as an option for those without the ability to progress to higher education (Billett, 2020). It is implicit that VET is perceived as a negative perception in society (Ajithkumar & Pilz, 2019). This perception correlates with these employers' views as well. In this context, HR managers also offered some measures to enhance the standing of VET:

> The image of ITI can be improved by continuous broadcasting of the success stories of students and alumni, available career opportunities and demand in the labour market. (HR Manager, Automobile 2, Chennai)
>
> The majority of companies are engaging the ITI students for down-level work due to the attitude and behaviour of the students are not up to the level. So, if include the aspects like personality development and behavioural things in the ITI syllabus and as well as

> in-company initial training, it will help them (ITI graduates) to improve their image at all levels (HR Manager, Automobile 1, Chennai)

From many studies, it has become clear that vocational training and trained labourers will be accepted in the future only if the social opinion regarding manual workers changes; in particular, this has to be reflected in their pay and career prospects (Pilz, 2016c). In contrast, the interviews with HR managers portrayed that employers are merely more concerned about economic factors like cost and productivity which are discussed in the section below.

Economic Factors like Productivity

All the interviewed employers emphasized the economic benefits to the company by hiring ITI graduates. Mostly, they reported employing ITI graduates as apprentice training for a low salary in comparison to their permanent employees.

> For regular employees, we are paying a higher salary. For ITI apprenticeships we are paying a stipend which is less than the regular and permanent employees' salary. We are imparting world-class training to the ITI apprenticeship candidates, so it is a win-win situation for both of us. (HR Manager, Automobile-1, Bangalore)

An employer spends a lot of investment to develop the human capital of workers to master the skills required in the companies. However, the above quote illustrated that the company provides quality training to the ITI apprentices rather than paying them a higher salary (Singh & Parida, 2020). It implies that ITI graduates have the opportunity to learn specialized skills which might not be taught at the ITIs. Nevertheless, as has been seen in the preceding section, some companies employ ITI graduates to work merely as helpers or loaders, else doing only manual work rather than trade-related skilled work (Neroorkar & Gopinath, 2020).

It is noteworthy that no employer interviewed, desired to hire the ITI graduates permanently which may likely incur more costs to the company.

> I can pay only the minimum wages as per the (apprentice) act. I am getting the candidates available in the market. They all are freshers. Prior times, based on the experiences, their knowledge and skills, their remuneration also getting increased and also it benefits to the organization. (HR Manager, Automobile 2, Chennai)

Employers tend to find ITI graduates available in the market and those graduates are also ready to accept to work for what the employers pay them. This situation is due to a lack of employability and/or increased supply of ITI graduates. Consequently, labour market returns of graduates appear to be quite low (Ahmed, 2016).

One HR manager from the manufacturing industry is concerned about the duration of apprenticeship training which the ITI graduates receive in the form of on-the-job training. They can get the return on investment only after they productively contribute to the company and returns to the company.

> Because we are investing a minimum of six months on them, so the return on investment will be getting if they exceeding six to nine months. So, the scrap rate will be higher and the

> rate of productivity will be lower. Whereas we paying a stipend to them. It's again we are investing in people. (HR Manager, Manufacturing 1, Coimbatore)

The skills that the ITI graduates get does not equip them with the skills that employers seeking. The empirical evidence on the role of on-the-job training and the returns from it is very limited in India (Bhandari, 2021). However, those decisions are made by companies, this can be illustrated by the quote below:

> There are organizations where their motive only will be production. So, when the company's objective is only about productivity, or it's only about revenue or profit which is the method that most of the Indian companies follow. I am not blaming anyone, just saying the fact. (HR Manager, Automobile 2, Chennai)

Another factor that tends these employers reluctant to make ITI graduates as permanent employees are to avoid legal issues like formation union as well as other related consequences such as disruption company functioning, their productional process also may get affected. The two following quotations document this aspect very clearly.

> If I have permanent employees, in future he may create a union and with this union, they will have a lot of charts of demands. So, to cut all these aspects, this temporary workforce will provide me with some relief and they will give me a product which is very cost-effective. (HR Manager, Automobile 2, Chennai)
>
> I think you heard of lockout and strike and all. Previously they were doing lockout and strike everything year on year. Earlier we were thinking of hiring ITI candidates as permeant employees. But, because of these issues, we have changed our mindset and planning to ITI candidates as apprentice training. After their apprentice training, they will be replaced by a new batch. (HR Manager, Manufacturing 1, Chennai)

Over the last decade, the private sector has played an instrumental role in driving the demand-led skill development system in India. Addressing the challenge of increasing the enrolment capacity in VET would require collaborative actions among government and private stakeholders and effective linkages between prospective employers and Vocational Training Providers (Mehrotra, 2016). However, as Winch (2013) argue, employers are likely to invest in VET if there is a positive economic return. Also, Winch is doubtful that even in a such case of the business strategy of employers, it will not consistent with extensive investment in VET (Winch, 2013, p. 102).

Nevertheless, this kind of viewpoint depends on the company policy and those focusing beyond economic benefits like employees' welfare and people-focused. For example:

> That depends on the companies' policy. See, some company which is very people-centric or very good employee policy, these companies once after the three years they complete two years they will give them opportunities permeant employees and newly established companies. Like example, Yamaha which is new company eight years back, so people who joined there as a three-year trainee they would have been made permanent. (HR Manager, Automobile 2, Chennai)

Employers' tendencies towards taking apprenticeships for a stipulated period time or specific types of ITI graduates perhaps reflects entrenched from more

transactional, cost-led and short-term approaches to developing human resources (Tomlinson, 2012). Further, training for new ITI graduates, in particular, is expensive (Pilz & Pierenkemper, 2014), even if the employer invests in training may not be resulted in a profit due to poaching of trained employees by other employers offering them higher wages (Winch, 2013). Good remuneration for ITI graduates is more likely to enhance its status and attractiveness than relatively poor remuneration. In contrast, as discussed in the beginning of this section, the employer interviews demonstrated that newly recruited ITI graduated are paid less salary than their permeant employees and are more concerned about cost and productivity.

Conclusions

Similar to the other findings on attractiveness from the perspective of students and their parents as well as teachers, our study of employers' perspective of also shows that the quality of vocational training in combination with employability and thus pay as well as career opportunities in the job market are important aspects of attractiveness.

As the cost of developing human capital is increasing, consequently, the employers expect educational institutions to produce graduates with employability skills that are required by the market without additional training from the industry (Husain et al., 2010). But our employers' interview further confirms the quality of training the ITI graduates received in ITIs were not matching their companies' needs, because the graduates lack practical skills to perform on the job perceived negatively among employers. However, the employers' interviews revealed that companies are primarily concerned with economic rather than educational factors. Therefore, employers neither favoured to invest in training and not getting skilled employees in the longer run. They mostly hire ITI graduates with minimum salary and does not want them to retain more than the apprentice period time due to high cost to the employees. As Winch (2013) argue the salary and status are closely related worldwide, so when the ITI graduates are paid with poor salary by companies it is implicit that they are perceived low status in the labour market.

As mentioned in the previous sections, VET programmes are perceived as low-status manual work and low-paying employment in India (Agrawal, 2012). Therefore, the ITIs should interface with industry will be promoted to improve the employability of the trainees. The demand-driven curricula should be developed in consultation with industry representatives, experts and academia by the competent bodies, to providing quality training and gainful employment in line with the latest market trends as a measure to enhance the attractiveness of VET (Zenner et al., 2017). The VET teachers and trainers also are important facilitators of learning and role models of their occupations of young people. Thus, the status of VET teachers is also related to the attractiveness of VET and needed measures should be taken in this context (Lasonen & Manning, 2001; Pilz & Gengaiah, 2019; Pilz et al. 2022). In addition, initiatives such as, for example, the support of ITIs through better

equipment and higher teaching capacities may be one approach to lead to the qualitative improvement of vocational education processes (Jambo & Pilz, 2018). With the support of the World Bank, the Government of India many government ITIs have been upgraded into so-called Centres of Excellence (COE) at the national level (Rao et al., 2014). Under this program, appropriate infrastructure and equipment are provided. Further, the program has the overall strategy of enlisting cooperation with Industry and Chamber of Commerce and to creating a public-private partnership model for designing and implementing the scheme. The salient features of the scheme of upgrading ITIs include the introduction of multi-skilling courses of one-year duration followed by advanced/specialized modular courses through an industry approach with multi-entry and multi-exit provisions. Most ITIs impart training in engineering trades like instrument mechanic, electrician, fitter, plumber, turner, welder, etc. Establishing Public Private Partnership in the form of Institute Management Committees (IMCs) is envisaged to ensure greater and active involvement of industry in various aspects of training (Tara et al., 2016). Besides the enhancing of vocational training institutions itself, our findings show clearly the need for long-term changes in the labour market. For example, the Government needs to establish or at least support firm progression routes through initial vocational training in combination with continuing vocational education and training (Badrinath, 2016). The upgrading of skills by continuing vocational education might help to fill gaps of skilled workers and also enhance earnings. Both aspects can support the growing standing of vocational education and training in India.

Furthermore, emphasise should be placed on improving the attractiveness of VET: good governance of VET system and providers in terms of responsiveness to the needs of individual and labour market, highly qualified trainers, better quality assurance active participation of all the key stakeholders. Indian policymakers have realised the potential of vocational education and have introduced reforms and increased the size and scope of the ITI-sector (Kumar, 2016; Chakrabarti, 2016). Here we can only focus on one example, focussing directly on the situation in ITIs.

The findings from this employer-perception study require careful interpretation because the data were collected from a small sample of employers only across two states in south India. Also, employer interviews offer only limited perspective and the qualitative methods also has limitations. Thus, the collected data and the findings may not reflect as same those from the other parts of the country. Therefore, more research in this field is needed with a large sample including the different sizes of companies and covering other regions in India. Besides, the reasons for the low standing of Indian vocational training courses in society and the labour market can be traced to several socio-cultural and historical factors. In India, traditionally the VET system has been supply-and government-driven, with very little involvement of the private sectors. Reforms are needed to bring more active industry participation in VET to ensure the quality of training and responsiveness to industry demands (Mehrotra, 2014). Nevertheless, it is possible to propose that factors such as decent and well-regarded occupations, prospects of employment are likely to be elements that will attract the stakeholders and retain interest (Billett, 2020).

Also, the explorative study described here might be a first attempt to fill the existing research gap in the field and can improve the reflection on the status and reputation of VET in other regions in India and even in other countries.

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