Routledge
Taylor & Francis Group

Journal of Vocational Education & Training

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rjve20

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To cite this article: Srabani Maitra, Saikat Maitra & Manish Thakur (2022): Uncertain itineraries: dual system of training and contemporary TVET reforms in India, Journal of Vocational Education & Training, DOI: 10.1080/13636820.2022.2042724

To link to this article: https://doi.org/10.1080/13636820.2022.2042724

Published online: 27 Feb 2022.

JOURNAL OF VOCATIONAL EDUCATION & TRAINING
https://doi.org/10.1080/13636820.2022.2042724

Uncertain itineraries: dual system of training and contemporary TVET reforms in India

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ABSTRACT

Over the past decade and a half, skill development has assumed critical importance in India's policy discourse. In this context, in 2016, a German inspired vocational training programme called Dual System of Training was adopted by the Indian government to ensure a judicious balance of classroom learning and on-the-job training for young people. Based on semi-structured interviews with twenty-five national level policy makers in India we examine the drivers of this particular policy adoption and suggest that the sedimentation, expansion and institutionalization of the policy remain embedded in a bureaucracy-driven centralised and hierarchical framework, thereby limiting much of its transformative promise and potential. Our contextual focus on TVET reforms in India characterised by massive youth demographics, competing political compulsions, uneven capitalist development and increasing nationalistic tendencies reveal the complexities of policy adoption from the Global South perspective, an area that remains understudied.

ARTICLE HISTORY
Received 27 June 2021
Accepted 7 February 2022

Keywords
Dual Apprenticeship; TVET; Industrial Training Institutes; Skill policy; India

Introduction

This paper explores the policy objectives and rationale-framing transformation in India's vocational education and skill training in recent years – the adoption of the Dual System of Training (DST) in 2016. The main purpose of the German-inspired DST is to ensure that students in formal vocational institutions – most notably the state-owned Industrial Training Institutes or ITIs – devote equivalent time to classroom theoretical learning and on-site industrial training during their period of education. This marks an important departure from an earlier emphasis on primarily classroom learning coupled with limited practical training conducted in the ITI workshops and laboratories, rather than being exposed to the rigours of industrial work experience per se.[1]

The DST has been simultaneously celebrated for its potential ability to revamp Indian vocational education but also vilified for being too ambitious and out of touch with the complex realities of the vocational system it wishes to

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transform. The contextual focus on TVET reforms in India, characterised by massive youth demographics, competing political compulsions, uneven capitalist development and increasing nationalistic tendencies, reveal the complex 'dynamics and limitations' of policy adoption from the Global South perspective, an area that remains understudied (Li and Pilz 2021, 5). We draw on the Cultural Political Economy (CPE) approach (Jessop 2010; Sum and Jessop 2013), to unpack the material (structural) and ideational (discursive) drivers behind the adoption of DST in India and possible policy orientations on skill development in the coming years based around the DST approach. The drivers we highlight in this paper will explain the policy adoption at three stages: *variation, selection and retention*. The variation stage highlights India's ostensible ambition of producing a highly skilled labour force to address the issues of skill-mismatch, demographic dividend and rising unemployment (Mehrotra, Gandhi, and Sahoo 2013). At the selection stage, we focus attention on how DST emerged as the preferred policy choice for the national ministry. At the retention stage, we discuss the complexity of federal political structure of the country and its uneven industrial development.

Over the past decade and a half, skill development has assumed critical importance in India's policy discourse. As a measure of its growing policy salience, the creation of a new and overarching Ministry of Skill Development and Entrepreneurship (MSDE hereafter) in 2014 at the national level brought into being the requisite institutional framework for the unfolding of a range of TVET (Technical Vocational Education and Training) reforms in the country. Of necessity, these reforms emanate from a thorough-going critique of the past practices while attempting to outline 'India's massive skill development ambitions' (King 2012). Researchers on the Indian labour market, by now, are familiar with the essential elements of the critique: the poor quality of training, the miniscule coverage (less than 3% of the total workforce), the challenges of scaling up, its supply-driven nature, the heavy reliance on government provision, and the larger disconnect from the industry and other stakeholders (Comyn 2014; Maitra and Maitra 2019; Mehrotra 2014, 2020; Neroorkar and Gopinath 2020).

The rise in India's economic growth in the wake of economic reforms of 1991 led to a congenial political context wherein skill development acquired a valued 'productivist' slant: 'the notion that the role of skills is fundamentally concerned with employability, productivity and economic growth' (King 2012, 668). It is not that India's economic reforms of 1991 set in motion a skill-driven dynamism to the economy, nor was its economic growth preceded by an extensive (formal) skilling of its labour force. However, the opening up of the economy created conditions for a policy discourse wherein global competition turned out to be the key word. The quality of human resources was to be the corner-stone for maintaining this much sought-after competitive edge in the global economy in general, and particularly, in relation to China in the so-called 'Asian Age of

Capital'. Accordingly, the National Skills Qualifications Framework (NSQF) was developed in 2013 by the Ministry to review the alignment of skill competency levels in India with international qualification frameworks.

The liberalisation of the Indian economy brought about a receptiveness to globally circulating policy discourses, especially those conducive to economic liberalisation. There was an increasing reliance on the policy prescriptions of multilateral agencies like the World Bank, the International Monetary Fund (IMF) and the international consultancy groups (McGrath 2002). As Mehrotra et al. (2014) have noted in the context of TVET reforms in India, much of it emanated from the general policy prescriptions that the World Bank made for emerging middle/lower-middle-income economies. By and large, these prescriptions were guided by the notion of a market-led vocational education and a 'self-help agenda' for the youth, with the state acting as a facilitator for creating the access of youth populations to an increasingly privatised labour market. Without much attention to the existing economic and social structural contexts, the policy focused on the role of individual enterprises and private sector training institutions, often in conjunction with the state, through Public-Private-Partnership models. It did not (wish to) confront the larger challenge of introducing TVET reforms to fundamentally address the thorny issues of spiralling unemployment, job insecurity, inadequate social security, and the glaring inequalities. According to Allais (2012), such an approach signalled the state's gradual abdication of its collective responsibility for inclusive social welfare. Nevertheless, the two main planks of the TVET reforms in India have been the expansion of skill training and its quality assurance aligned with the requirements of private capital led economic growth (Chenoy 2017).

Although these reforms are anchored in the Anglo-Saxon tradition (Mehrotra 2020), there has been persistent reference to the German system of skill training and apprenticeship in academic and policy literature. The latter has been praised for its judicious balance of classroom learning and on-the-job training. Moreover, it gives industry (employers and trade unions alike) a predominant role in overseeing the entire gamut of training in a demand-driven framework. In fact, the German system of Dual Apprenticeship (DA) training has not been unfamiliar territory for Indian policymakers. For quite some time now, India-based German companies have been following their own 'shadow training system' with certain adaptive changes to suit the local conditions (Pilz and Pierenkemper 2014). At the official level too, there have been interactive exchanges between India and Germany by way of study visits, ministerial meetings, and collaborative workshops leading to the signing of the Memorandum of Understanding (MoU) between them.[2] Viewed thus, the adoption by the Government of India of the Dual System of Training (DST) in 2016 for reforming India's formal TVET institutions (especially the ITIs) appears to have drawn upon prior familiarity with the German DA model of skill training at the highest echelons of policy making.

Introduced as a voluntary pilot scheme in a limited number of ITIs across the country, the DST is expected to gradually become part of the country's 15,000 ITIs in 17 trades relating to manufacturing and services (MSDE, 2018). These trades (e.g. welder, machinist, cosmetology) have been chosen because of their high employment potential and their alignment with industry requirements. The choice and adoption of the DST has surely been guided by its proven track record as an effective system of skill training leading to secure employment. For example, it is estimated that in 2016, 68% of the DA trainees were hired as employees in Germany.[3]

Despite its demonstrated success, relatively speaking, the German model has had less purchase among the lower/middle-income countries of the Global South owing to their differing cultural, economic and political realities (Valiente 2014). As (Verger 2014, 14) points out, further empirical research is necessary to analyse the 'processes, reasons and circumstances that explain how and why policymakers (or other education stakeholders) select, embrace, and/or borrow global education policies [such as the DA model], and aim to implement them in their educational realities.' In any case, policy transfer is a highly complex process leading to manifold problems of scaling, targeting and sustainable replicability (Maurer and Gonon 2014). Such a transfer necessarily entails a 'top-down approach,' thereby limiting much of its transformative promise and potential (Pilz and Pierenkemper 2014). Not surprisingly, there is a growing recognition of the impossibility of directly 'copying' international best practices (*hard transfer*), and an acknowledgement of the *adaptation* of policy ideas to suit local-national needs and capacities (*soft transfer*) (Chakroun 2010; Raffe 2011). Also, it is important to analyse 'policy borrowing and lending' under comparative education in terms of 'dynamics of persuasion, discursive selectivity, and generation of meaning' as central factors behind policy adoption (Verger 2014, 16) given the recent shift from external imposition of global policy adoption by international aid agencies to its being voluntary and selective in developing countries (Steiner-Khamsi 2012). Likewise, as (Novelli et al 2014, 2) argue, there is a need to go beyond dichotomies of 'methodological nationalism', that is, 'presuming that policy decision begins and ends with the nation' and 'methodological globalism' that 'over privileges global actors and factors.'

Theoretical framework

CPE considers both material (economic, institutional and political) and semiotic drivers (discourses and ideas) along with their interactions in order to explain processes of policy adoption (Verger 2014). CPE is not about simply adding 'culture' to economics and politics, or applying 'cultural theory' to policy analysis. Rather, it emphasises the 'semiotic nature of all social relations' and the way that structural factors inhibit or enable the meaning-making semiotic capacities of culture (Jessop 2010, 337). Understanding the thick nexus between semiotic

and structural factors (drivers) becomes critical in analysing 'why some countries adopt specific processes of policy reform and why some policy solutions are presented as feasible to policymakers and other stakeholders' (Zancajo and Valiente 2018, 8).

Within a policy context, CPE begins with 'complexity reduction' that entails the reduction of the complex nature of real-world problems to a manageable scale (Jessop 2010). This reduction of complexities entails the semiotic process of meaning making where a range of actors can engage with the concrete world and reflect on its specific aspects through concepts whose meanings are transparently and consensually available to all. Meaning making, however, does not merely mean reducing complexity for policy actors, but also for the wider public. This is required to lend wider acceptability to a specific policy. Moreover, the semiotic process itself works within a range of diverse interpersonal beliefs, concepts and meanings, forming social 'imaginaries' that tease out meaning from the complexity of the real world through collective perspectives and frames of reference. (Mayblin 2016, 821) defines an imaginary as a 'meaning system, a package of beliefs, ideas, material circumstances and processes' which together provide us with a perspective on a particular situation. Consensual agreement on particular imaginaries occurs when they achieve a hegemonic social, political and economic status, and are able to exclude competing imaginaries. Imaginaries, therefore, are deployed in the policy context to understand the discursive dimensions of policy objectives and their efficacy. In the context of the DST, the projected relevance of the market-led educational reforms emanating out of the Indian state's neoliberal ideology of governance provides the hegemonic social imaginaries for policy change in the field of skill training and vocational education.

To the extent that semiotic (read: cultural) and structural (read: social) are dialectically related 'it [is] necessary to study both in their articulation' (Jessop 2010, 338). It is the reciprocal interaction between the semiotic and the structural that enables us to understand the three 'evolutionary' mechanisms of any policy, namely, variation, selection, and retention (Jessop 2010). Yet, these three mechanisms do not entail any 'pre-determined sequences' (Jessop 2010, 340) but are a 'heuristic device to analyse the interaction between semiotic and material drivers' (Zancajo and Valiente 2018, 8).

Variation or emergence is critical in terms of demonstrating the inherent limitations of the existing policy frameworks and the need for their reformulation and re-calibration if not total denunciation. At this stage, dominant policy discourses need to be revisited owing to a conjuncture of circumstances. These circumstances could be the outcome of an economic crisis, large-scale changes in social and collective imaginaries that may call for policies to address new societal demands such as skills upgrading, decent work, or productivity (Zancajo and Valiente 2018). Selection or subsequent privileging implies the identification of the most suitable interpretations of existing problems, as well

as the most complementary policy solutions (e.g. employers' involvement in skills formation, work-based learning). It refers to a moment of struggle among different definitions of the causes and political solutions to the problems emerging in the variation moment. Policy actors compete to impose their policy solutions, presenting them as the most pertinent and feasible for a given problem, and try to introduce them in the political agenda of those with the capacity to make decisions. At the selection stage, multiple options – Jessop identifies them as social construals – remain open to policymakers as they realign existing policies to the altered circumstances. Retention, or ongoing realisation, refers to the moment of institutionalisation or sedimentation of the selected policy solution through changes in the regulatory framework and governance technologies of the system. It is also the crystallisation point of conflicts and oppositional movements. Once the government announces the adoption of policy decisions such as DST, different stakeholders will position themselves to support it or resist it according to their level of (dis)agreement with the reform. In this paper, we follow this framework to explore the 'policy paradigms' guiding DST and to analytically elucidate the 'political, economic and educational drivers' that explain the adoption of DST in India (Zancajo and Valiente 2018, 8).

Methodology

This paper is part of a larger Economic and Social Research Council (ESRC) funded comparative study focusing on the policy adoption of the German model of DA in India and Mexico. As part of the study, 25 semi-structured interviews were conducted in India with key policy actors involved in the policy adoption process, including government officials (12 with 5 from MSDE), senior bureaucrats (4 with 2 from MSDE), educational providers (6), community-based organisations working in the area of skill development and youth employment (2) and union leaders (1). Theory-based selection criteria of respondents were adopted so that interviewees were chosen according to their involvement in each of the three stages: variation, selection and retention. Under each stage, the interviewees were initially selected through the researchers' personal networks and prior contacts. Through these contacts, we conducted extensive interviews on TVET generally. Based on these preliminary interviews, we chose to select and conduct follow-up interviews with those policy planners who were specially involved in decision-making capacities regarding the DST reforms. Snowball sampling was used to reach out to as many key respondents as possible. Most of the interviews were fairly long (more than an hour) and focused on the stakeholder's experiences and perceptions about the variation, selection and retention of DST policies. For each stage, variation, selection and retention, a broad question along with a set of sub-questions were developed to explore in detail the role of the interviewees in the corresponding stage of policy adoption. We also tried to situate the interview data in the larger context

of extensive policy documents and the burgeoning literature on the TVET reforms. These documents are all publicly available and some of them referenced in the paper itself such as skill policy by MSDE. Thematic analysis based on the main ideational and material drivers of policy adoption (variation, selection, retention) was employed to analyse the data from the interviews. Since the DST is, relatively speaking, quite a new policy initiative, we are aware that an authoritative mapping of its main ideational and material drivers in terms of three-fold pathways of variation, selection, and retention could be slightly premature. Also, given the nature of the interview data, we have presented more of a centralised 'national' perspective without factoring in the points of views of the provincial counterparts in India's diverse regional contexts. Project findings were shared with policymakers, TVET educators, academics and employers during research impact and dissemination events for validation. Ethical approval for the research was given by the University of Glasgow.

Discussion of findings

Variation: the policy gaps

The liberalisation of the Indian economy in the 1990s ignited debates about the need for an urgent reform of the TVET and skill training programmes to impart competitive edge to the industrial labour force. These debates became particularly urgent from the early 2000s due to rising apprehensions about the slowing down of the Indian economy as a result of the largely unskilled and poorly trained workforce. The 11th (2007–2012) and the 12th (2012–2017) Five Year Plans[4] particularly underlined the policy significance of skill training for youth and a comprehensive institutional revamp of the ITIs and other vocational educational institutions. The plan documents highlighted the widening gap between the supply of skilled labour and labour market demands. The existing curriculum was found to be obsolete, creating an oversupply of poorly trained workers in some trades and a shortage in others. The sad state of affairs in India's formal vocational education sector was reflected in the depressed employment rates for TVET graduates as well as their low social esteem in general. Accordingly, the plan documents advocated the development of a comprehensive National Skill Development Policy, having a clear Skill Mission to train a pool of workers in strict compliance with existing industry needs. Recommendations were also made to include feedback from employers to make vocational training programmes more efficient and market-oriented (12th Five Year Plan, 2013). The objective for involving private industrial partners was to ensure that vocational education students learn industry-appropriate skills and overcome the problem of 'insufficient connection' with the industry requirements. This proposed

alignment of vocational education with market demands and actual industry requirements complemented the broader neoliberal imaginary of the Indian state linking vocational education with free market forces to develop the former.

Yet, linkages between industry demands and TVET remained far more elusive in reality. In analysing the causes of skill mismatch in TVET in a comparative framework Pilz (2017: viii) considers such mismatches to be the result of 'economic restructuring when these countries shift into advance skill' – an insight that resonates strongly with the Indian context. Indeed, the TVET institutional arrangement in India has not proved agile enough to quickly adapt skill-training provisions to contemporary technological innovations. It has lagged behind in terms of its integration with other critical policy reforms in the manufacturing sector such as the Make in India initiatives or the large-scale digitalisation and automation plans under the Digital India Mission (KPMG& FICCI 2016).

A stock-taking of the TVET ecosystem in India reveals the glaring lack of involvement of industries in the assessment and certification of skill training programmes. The industry-faculty connect is also missing in terms of designing the course curriculum (11th Five Year Plan 2008). Vocational education curriculum has often lacked nationally recognised skill standards or international benchmarks. This multi-pronged scrutiny of the existing policies paved the way for new organisations like the National Skill Development Corporation[5] or Sector Skill Councils[6] with a view to take on broad inputs from industry for an integrated skill-based curriculum with provision for the recognition of prior learning along with standardisation of vocational education curriculum and training standards (KPMG & FICCI 2016). The lack of concern for a demand-driven skill training framework turns out to be a recurring theme in much of policy and academic literature. It was repeatedly emphasised by our respondents as well. For example, one of the senior bureaucrats from the MSDE referred to it as the central problem plaguing vocational training programs in India:

> But the quality outcome [of TEVT], as far as it is concerned, there is a concern because we find our graduates are not employable … One of the key problems we saw in our ecosystem was very little or zero connectivity of our academic world with the place of work (Mr. SK, Policymaker, MSDE).

A number of respondents reiterated the need for aligning courses with industry needs. Worried about the low prestige of vocational education in India, policymakers were clear about the fact that new and existing skill training programmes cannot be delivered in isolation from shifting labour market demands. They may not be 'stuck in time' but still have a long way to go to be fully attuned to the changing market requirements. It should, however, be borne in mind that the lack of alignment between graduates and the labour market is not only restricted to

TVET but also extends to other higher educational institutions such as engineering in India (Venkatram 2016). Limited scholarly work in this context has pointed out the lack of job readiness or preparedness for the labour market (Pilz 2016).

The need for extensive TVET reform also gained momentum amidst optimistic discourses of demographic dividend. For some time now, scholars in India have been estimating that more than 54% of the total population is below 25 years of age and over 62% of the population is in the working-age group of 15–59 years. According to the Sharda Prasad Committee report (2016), India's demographic dividend began in the early 1980s and is expected to come to an end towards the latter part of 2030s. India is, 'therefore, just beyond the midpoint of its dividend and this oncet in a life time opportunity for our nation is unlikely to last beyond another quarter of a century from now' (Prasad 2016, 8). Policymakers have, thus, been keen on harnessing this demographic dividend by offering both long- and short-term skill development courses to facilitate young people's rapid labour market access (Ministry of Skill Development and Entrepreneurship 2015a & 2015b; National Skill Development Mission Policy 2018, 2). Yet, inadequate training infrastructure and limited provisions for quality skill training continue to remain a concern.

Furthermore, ITIs – the most critical institutions for formal skill training – have a low training capacity of merely 1.69 million as compared to 23.76 million students in higher education (Stiftung & FICCI 2015). Additionally, vocational training offered through institutions like ITIs have a high drop-out rate and the training system often fails to provide 'clarity about career prospects' (KPMG & FICCI, 2016). The issue of demographic dividend, and the ways of productively harnessing them, came up recurrently during our interviews. One of the policymakers from MSDE who has been involved with the development of skill policies in India not only pointed out that India has a demographic dividend but also that:

> Unless we scale up our training infrastructures and create employment, that demographic dividend will become in no time demographic disaster (Mr AR1, Policymaker, MSDE).

Improvement in access and quality while securing the involvement of the private sector to align curricula with labour market needs, to boost gainful employment, figured prominently in our interviews along with being frequently cited in various policy documents (Government of India 2010). There was an added consideration of expanding the scope of training offered by the ITIs to include soft skills and digital literacy to make its training relevant for both the manufacturing and the service sectors. The latter has emerged as the largest contributor to India's GDP and could not be ignored in the revamping of the TVET eosystem. It is this overall policy context that needs to be considered for the adequate conceptualisation of the selection of DST in India.

Selection: the struggles to promote DST

The main imperative behind the restructuring of Indian vocational education was to ensure a steady supply of skilled workers required by various industrial and service sectors, and also to create a feedback loop so that inputs from the employers could be made part of the skill sets imparted through various training programmes (DGT, 2019). In effect, this meant seeing DST as an effective policy reform given its presumed ability to enhance employability of the trainees and thereby its overall contribution to economic productivity by positively intervening in the problem of unemployment, especially of socio-economically marginalised youth. Knowledge about the German vocational education system is not new in India. From at least the 1960s, German companies have been operating in India and providing tailored vocational training facilities to suit their industry needs (Pilz 2016). Bosch Vocational Centre in Bangalore for example, has been drawing on the German Dual model to provide training to students after the 10th grade under the Apprenticeship scheme. Bosch has also signed a Memorandum of Understanding with a few ITIs to 'improvise them according to industry requirements' and enrich their curriculum (Mehrotra et al. 2014, 26). While some of the other German companies in India have also tried to implement the dual-system model by trying to collaborate with ITIs, those initiatives have been largely unsuccessful owing to poor infrastructure and lower quality of training in the ITIs (Pilz and Li 2014). These existing linkages with German DA, however, were not referred to by our interviewees when they spoke about the planning and implementation of the DST in India. Rather, our respondents were emphatic about the home-grown innovative vision anchoring the dual system of training which, though inspired by the German DA model, was not its copy:

> The German DST is world famous and we know about it. But our DST is not a copy of the German model. It is based on our vision of strengthening industry linkages and improving students' learning outcomes in the context of the changing labour market (Mr AR2, Policymaker, DGT).

There was, however, some reference made by the interviewees from MSDE about some consultations with German companies like the German Corporation for International Cooperation (GIZ) as well as German official delegations. For example, our interviews with the MSDE team working with international partners and policies revealed that the current focus on DST cannot be separated from the long-held interest in the German system of work-based learning. Some interviewees mentioned that they have been supported by GIZ which has a 'good presence' in India as well. A senior bureaucrat in the MSDE mentioned that various international models were explored and that in the whole process:

> A lot of engagement was going on, cross learning going on across the world. And in that learning we found this [German] model in multiple places (Mr SK, MSDE).

However, it was not that all stakeholders were equally happy about the German model. An industry leader held the view that some of the apprenticeship models practised in Germany and other OECD countries were themselves in need of urgent improvement given their deeply ingrained orientation towards manufacturing. In his view, as it happens with technology transfer, 'obsolete models of vocational education and training were being sold to developing countries like India' (Mr CD, Industry head).

The DST in India, therefore, seems to have emerged from the entanglement of divergent policy objectives which might not have been compatible with each other. Codetermination, for example, is important in the German Dual system. Mehrotra et al. (2014) point out that in Germany, codetermination is evident in how employers' associations and trade unions work together to determine the regulation, curriculum design, certification and funding of the dual system. Our respondents among the leaders of employer associations and trade unions, however, confirmed the total lack of consultation, and thus, codetermination. Evidently, trade unions and their leaders were left out of the entire process. They felt deprived of the opportunity to raise their concerns about the potential scope for exploitation of young workers.

Comparing the DST programme to apprenticeship, one of the union leaders argued that often in these trainee positions, young people were made to work long hours without proper remuneration. Moreover, there were issues relating to inadequate provision for workplace safety, health insurance and maternity leave. Furthermore, there was no tracking of employment after the end of the training period. Critical of the government policies, the trade union leaders were thus vociferous about the need to include their voices in the planning and implementation of vocational education programmes like the DST:

> So we are talking with the government, MSDE, and the labour ministry about the apprentices because the government has to formulate some kind of policy (Mr RK, Trade Union Head).

DST is primarily geared to address the problem of skill mismatch. Unlike the German model, DST does not aim to create apprentices as such with clearly demarcated legal rights and pay scales. The programme in India is focussed on providing students in vocational education institutions with industry relevant experiences that complements their classroom teaching. This difference of status between 'apprentice' in the German model and 'student' in the Indian DST is critical because students undergoing DST are precluded from benefits like guaranteed minimum wages and work-place insurance that apprentices are entitled to in India under the Apprentices Act of 1961. The main benefit to the students primarily accrues through the elevated stature of the DST where the

brightest students can opt for the DST model in the ITIs and consequently are exposed to shop-floor technologies and work-related disciplinary rigours to complement their classroom learning. This exposure furthermore is expected to enhance the future employability of the students after graduating. One of the interviewees from the Directorate General of Training (DGT), a government institution primarily responsible for ensuring quality vocational education through ITIs, who was involved in the development of the DST reported that:

> Admission to DST is based on grades. Usually the best students will go for DST. They will get advance industry led training and advance knowledge of technology. Industry will be tempted to hire them (Mr RK, DGT).

Policymakers kept on highlighting the balanced and fine-tuned understanding of working on the shop floor that the DST graduates were likely to gain compared to other ITI graduates. However, the lack of co-determination amongst various stakeholders around the DST places an enormous burden on individual ITIs to persuade local corporate partners to provide the training facilities for young students. State institutions like ITIs must reach out individually and initiate collaborative networks with private corporate partners in order for the DST to work due to the lack of initiatives by other mediators like trade unions or industrial representative bodies. This is where the Indian DST model significantly differs from the German model as state institutions in India are mandated to induce partnerships with private entities by providing various incentives (such as insurance for students in case of shop-floor accidents). There is relatively little inducement (and little interest) for corporate institutions to sustain the dual training on their own. Representatives of the private industries such as chambers of commerce and the various Sector Skill Councils have until now played a minimal role in providing an interface between state vocational institutions and private corporations. Introduction of DST has not been able to bring about this much sought-after and talked about synergy. Thus, one of the interviewees explained:

> There is no collaboration. Every skill training institution is working on its own. Same training is getting duplicated. Even the DST has no synergy with other training programmes. ITIs have to convince corporates to sign MOUs for DST. Government has not been able to lure industry to DST. I am not sure if there was even a need to introduce DST. We need to work on our existing programmes. (Ms SM, NSDC)

The selection of the DST model seemed to be very much a top-down imposition by senior policy makers and bureaucrats in the MSDE who decided to go ahead with its implementation without necessarily consulting other critical stakeholders like industry representatives, trade unions, state governments. Discussions with three ITI principals, for example, revealed that while presentations were made to various stakeholder groups about the possibilities of the

DST, the intricacies of actual implementation and programme delivery (including industry collaboration) were quietly passed on to the individual ITIs. This was the reason that DST was selected initially as a 'voluntary start.' One of the senior bureaucrats in MSDE mentioned that:

> We did a pilot and when we started, we started along with 4000-5000 students only. This year [2019] we are trying to scale up the dual system of training. So we did consider, we did … we didn't make it mandatory for everybody to adopt. Initially we always try to make it a voluntary start. The ecosystem is prepared, the guidelines are laid down and there is a voluntary start, the institutions can then adopt and move in that direction (Mr RK, DGT).

Arguably, the DST was packaged as an innovative policy initiative meant to transform India's vocational education from a supply-driven framework to a demand-driven one. Its contribution to the enhanced employability of the trained graduates, its compatibility with the skill needs of the economy, and better integration with labour market were endlessly repeated by our respondents working for the MSDE. Some of them were quite optimistic and thought of DST as helping to elevate the rather stigmatised image of vocational education in the direction of an aspirational pathway for social mobility through assured employment. In the long run, this meant persuading a greater number of aspirational youth to join vocational education in general and ITIs in particular.

Retention: the future of DST

The retention of the DST model in India, however, faces multiple challenges. At the macro-level, it has to confront a historically uneven capitalist development in the country along with a federal political structure where governments at both the national and provincial levels have powers to legislate regarding vocational education reforms. Unless state governments come on board and extend their fullest co-operation to the national policies on skill mission, the effective and speedy implementation of DST will remain an uncertain venture. In a country of India's size, the uniform implementation of a policy turns out to be essentially a political question, more so when ruling parties at the national and provincial levels differ in their ideological orientations. Thus, the DST model has taken off with a relatively high degree of success in certain northern and western Indian states politically controlled by the BJP government both at the national and the provincial levels. In contrast, the DST model is yet to be implemented in states like West Bengal controlled by political parties opposed to the BJP. Moreover, the proponents of the DST model hope to draw on the support of large multinational corporations. The outcome of this anticipated support remains in the realm of the future. One of the interviewees averred:

> Our plan is to encourage large corporates to enter DST. They will benefit from the programme. They will get skilled workers. Our government is trying to convince large corporates to become partners in skill training. (Ms PM, MSDE)

However, the support emanating from the large multinationals is inherently limiting (assuming their willingness for such support) given the geographical unevenness in multinational investments in the country. This unevenness is particularly amplified in the manufacturing sector which still constitutes the core area for the implementation of the DST. This unevenness underlines a key problem in the development of the broader skill mission in India where regional disparities in terms of industrial development and economic growth create a fraught political terrain (Lamba and Subramanian 2020). Also, the participation of the private sector in DST through collaboration with ITIs may not be always driven by motivations for skill development. In states like Delhi where such collaborations are relatively better institutionalised, the impetus has come more by persuasion from the ministry than out of sheer volition. Thus, in a telling interview, a senior executive of one of the largest car-manufacturing corporations in India conceded that their involvement with the DST was not because they wished to see a highly trained labour force emerge through DST but because they simply wished to be on good terms with the national government:

> We have entered DST not because we will get skilled workers. There is no dearth of labour supply. When the government approached us we said yes to because we want to maintain good terms with the government. But we are not gaining anything from this partnership. Yet we are investing in training knowing very well that tomorrow if the trainee finds a better job he will leave us and join another company. (Mr SP, Manager, Automobile Industry)

The above statement then raises questions about the effectiveness of the training component of the DST even when it is being provided by the employers given the latter's indifference to the actual objectives of the ITI-industry collaboration. This indifference may negatively impact the learning experience of students undergoing their training in corporations that lack real commitment to on-the-job skill development of ITI graduates. Evidently, a lot more policy deliberations are needed to attract companies to participate in the Indian TVET ecosystem with greater willingness and commitment. Despite increasingly pronounced official policy discourses on skill development, and undoubtedly with much greater investment in resources, the revamping of the TVET remains a daunting task.

Admittedly, at this juncture, it is too early to celebrate the role of the DST in finding equitable and sustainable employment opportunities for Indian youth. The lacklustre approach of employers and the private sector is one of the real bottlenecks. No doubt, the DST is being pushed by the national government and the public TVET institutions are being roped in through financial incentives and bureaucratic persuasion. However, the disconnect between the public and

private institutions can potentially threaten trainees' actual employment prospects. Thus, young adults can end up with their aspirations and hopes regarding DST blocked by inadequate access to the labour market despite the promises of employment in the programme.

Conclusion

In this paper, drawing on the CPE approach (Jessop 2010), we have tried to capture the complex interplay between material and discursive drivers behind the adoption of the DST in India. We have shown how the DST is being projected as a major policy innovation in the TVET ecosystem by the Indian official establishment and its overlaps with the German system of DA. We have paid particular attention to the distinctive Indian socio-political and economic contexts to assess the hitherto uncertain trajectory of the DST. By bringing out the salient components of the policy discourses surrounding DST – employability, skilling, industry requirements, the demographic dividend – we have underlined the importance of some of the globally circulating policy discourses. The adoption of these discourses signals India's willingness to partake of the productivist vision of skill training. More importantly, it helps legitimise its ceding of significant areas of public concern (vocational education in the present context) to the market-driven logics of demand and supply so that the needs of private capital get privileged over the state's obligation towards public employment. In effect, the domain of skill training emerges as a crucial site through which stronger linkages between the state and private capital get forged. The DST is, indeed, a preliminary mechanism to mediate this link in the context of skilling and vocational education. The perceived advantages of this state-capital dyad are that it will ensure private capitalist growth in India through a steady supply of skilled labour force as well as absorb large number of young workers into the private labour market.

This overemphasis on a productivist conception of skill training, however, fails to accommodate any conversations on ensuring decent employment opportunities and sustainable livelihoods for young people (Powell and McGrath 2019). The focus of TVET reform linked to DST is primarily to make DST graduates find employment through enhanced skill training. While DST is primarily concerned with raising employment numbers, it does not address issues of decent work practices, equitable employment opportunities or sustainable nature of livelihood. By implication, it also helps the state to narrowly define its social welfare agenda. Furthermore, in the context of DST, unlike in the German DA model, major stakeholders like the Labour Unions or Chambers of Commerce have not been allowed to act as 'public intermediaries' between the state and the private industries (Petersen et al. 2016). Therefore, while Jessop underscores the consultative aspects of policy adoption among various stakeholders, we find the singular presence of a top-down approach working behind the adoption of the

DST in India. Its sedimentation, expansion and institutionalised implementation remain embedded in a bureaucracy-driven centralised and hierarchical framework. The strains and fissures of this hierarchical model are already evident as several state governments are yet to sign in for the DST. Most importantly, the DST model has already placed a disproportionate burden on those government ITIs which have opted for the same. With poor infrastructure, archaic syllabi, under-staffed faculty, and an over-regulated working environment, these ITIs have to now look for industry partners for the DST to actualise. In a way, everything boils down to the individual drive, entrepreneurship and ingenuity of an ITI principal in an environment which is characterised by persistent indifference, if not outright rejection, of the DST model by industrial training partners.

But then, a policy is more than the sum total of its achievements in terms of set targets and the related quantitative benchmarks. A policy, even an ineffective one, generates its own discursive ripples which very often end up strengthening the hegemonic social imaginary of the day. In the context of the DST, the incessant iteration of market-driven knowledge, industry-relevant skills, and the attendant enhancement of employability appear to be in synchronisation with the neoliberal values of self-improvement, individual responsibility, and entrepreneurialism. In this discourse, the onus shifts to the trainees if they find themselves unemployed, and the state's responsibility to create conditions for full public employment for its able and willing citizens takes a back seat. In a very subtle way, policy changes like DST end up altering the formative vision of citizenship that generally inform educational policies and practices. These shifts in the goals and processes of vocational education are quite evident in the DST's thrust for corporate provision of training including corporate control over pedagogy, curriculum and certification in relation to skills development. Thus, the DST has created a huge opening for the private players in the TVET field under the legitimating discourse of making the disadvantaged youth more employable through training in technical and entrepreneurial skills. As Dejeghere (2013, 503) stresses, 'in this model, learning is tied to markets; becoming a successful citizen includes acquiring business skills; and citizenship values include economic sustainability and self-reliance'.

At all events, the DST as a new paradigm, requires strong cooperation amongst the state, industry associations, private companies, trade unions, and vocational training institutions. Somehow, this cooperation is yet to take a robust institutional shape notwithstanding its rhetorical sway. And, ultimately, this cooperation is predicated upon a certain change in the corporate mindset – a mindset that appreciates the value of nurturing talent and skills on the shop floor. This would mean coming out of the habituated, rather arrogant, self-confidence of buying skills off the market as and when need arises.

Notes

1. It is important to note here that DST in India is outside the purview of the Indian Apprentices Act 1961. This means that students opting for DST do not legally qualify as 'apprentices' and therefore, are not eligible to receive benefits under the Apprentices Act. It is worth bearing in mind the differences between apprentices and DST trainees. Unlike DST trainees, apprentices under the Act receive training almost entirely at the workplace with very basic training available at the vocational institutions. Also, most students are hired as apprentices after graduation from ITIs (https://www.msde.gov.in/sites/default/files/2019-12/The-Apprentices-Act-1961.pdf)
2. https://www.mea.gov.in/Portal/ForeignRelation/Germany2020f.pdf
3. https://www.apprenticeship-toolbox.eu/germany/apprenticeship-system-in-germany
4. From 1947 to 2017, the Indian economy was premised on the concept of planning. This was carried through the Five-Year Plans, developed, executed, and monitored by the Planning Commission (1951–2014).
5. National Skill Development Corporation (NSDC) is a not-for-profit public limited company set up by Ministry of Finance as Public Private Partnership (PPP) model. NSDC aims to promote skill development by catalysing creation of large, quality and for-profit vocational institutions. Further, the organisation provides funding to build scalable and profitable vocational training initiatives. https://nsdcindia.org/
6. Sector Skill Councils (SSC) are one of the main partners of NSDC and play a vital role in bridging the gap between what the industry demands and what the skilling requirements ought to be. https://nsdcindia.org/sector-skill-councils

Acknowledgments

This work was supported by the Economic and Social Research Council UK [grant number ES/S004297/1]. We would like to thank the anonymous reviewers for their helpful feedback.

Declarations of interest

none.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the Economic and Social Research Council [ES/S004297/1].

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