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# Ownership in international vocational education and training transfer: The example of quality development in India

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## Abstract

This article addresses policy transfer in international development activities in vocational education and training. Ownership has been identified and established as a key factor for sustainability of transfer activities in different fields of development cooperation. While the concept has been targeted from a macro-level perspective of government-to-government transfer for a long time, meso- and micro-level perspectives of multi-stakeholder involvement are increasingly emerging. Thus, the focus is on the function of ownership in terms of the role of local stakeholder commitment for sustainable transfer at the level of vocational training institutions in India. Using the example of the transfer of an approach for quality measurement, factors, potentials and challenges for ownership development are explored. Findings are based on the first evaluation cycle of a quality measurement framework developed with specific regard to Polytechnic Colleges and Industrial Training Institutes. Results of the evaluation were analysed considering the model intentions and theoretically based assumptions taken in the research process. Ownership at the meso-level can be established by high degrees of acceptability of measures,

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participation of stakeholders at the institutional level and internal and external moderation processes in implementation. This paper argues that increased participation and decision-making authority will contribute to measures in line with stakeholders' needs and enable Polytechnic Colleges and ITIs to engage in institutional development more effectively when considering stakeholders' views. This is the case, particularly when focusing on quality assurance and development at the organisational level.

## INTRODUCTION

Today it is a common phenomenon in vocational education and training (VET) research to look at different systems in other countries in search of inspiration or potential solutions to problems, and by doing so, initiate change by transferring relevant policies. Transfer takes place in various contexts of development cooperation and VET export but is based on the internal efforts of specific countries to borrow from others simultaneously (Li & Pilz, 2021; Maurer & Gonon, 2014; Valiente & Scandurra, 2017). Policies as potential solutions can take the form of systems and structures, practices, or ideas and, as such, involve multiple meanings (Rose, 2005, p. 15).

In India, the quality of vocational training has increasingly been questioned for the past two decades, resulting in numerous policies and attempts to improve the system on different levels (Pilz & Regel, 2021; Sharma & King, 2019). Such efforts included those inspired by foreign structures like the German Dual System (see DGT, 2021; Mehrotra, Raman, et al., 2014) and international organisations' schemes. Many countries have been active in the field of VET transfer with India in the past, such as the United Kingdom, Australia, Germany, or Switzerland (see Baumeler, 2019; British Council India, 2016; Wessels & Pilz, 2018). Bilateral transfer activities, and processes of convergence, can be traced in VET. It must be noted that processes of convergence show in the reception and integration of international trends like competency-based education (NBA, 2019; Sahasrabudhe, 2015). These processes also show in the development of the Indian National Skills Qualification Framework (Singh, 2012). Furthermore, due to its colonial heritage, India experienced elements of coercive transfer that shaped the Indian general educational system and VET (Singh, 2001).

Past initiatives have proven ineffective in terms of quality improvement; formal VET measures continue to display fundamental quality problems and lack accountability (Pilz & Regel, 2021). The discrepancy between the educational system and the concrete needs of its stakeholders constitutes a consistent problem. It is reflected in governance structures, centralised curricula, and nonobservance of local conditions (Dyer, 2005). In India, top-down structures prevail in all areas of educational governance (Sancheti & Pillai, 2020). Thus, for vocational training, UNESCO (2020) defines the disconnect between planned measures and the local context as one of the significant challenges that need to be addressed by decentralisation strategies. Specifically, the role of local stakeholders for a sustainable implementation of vocational training policies needs the most ownership and increased participation (OECD, 2019).

Given the recent governmental developments for quality assurance in VET, and the history of efforts towards quality development within these institutions, numerous questions have begun to emerge, in particular questions around the adoption of quality management approaches that involve a higher degree of school autonomy for institutional development.

Such strategies — including the devolution of decision-making authorities to schools — are a continuing trend in educational governance and are the preferred approach taken by international agencies (Carr-Hill et al., 2016; Daun & Mundy, 2011; Vargese & Martin, 2014). At the same time, quality assurance and development policies that incorporate aspects of decentralisation through following international trends in school development need to consider meeting national and local conditions regarding possible transfer and reform activities.

This paper addresses the role of local stakeholders in sustainable reform activities by using the example of the transfer of an approach for quality measurement in Indian VET institutions that incorporates ideas of autonomous institutional development. Concerning Indian VET, the role of ownership at the local institutional level for policy implementation has not yet been investigated in detail. Possible identification and alignment with decentralisation policies for quality development are put into focus, through attempting to answer the question: *How can meso-level ownership be realised for successful vocational training transfer in India?* In contrast to a macro-perspective on transfer, potential transfer activities and enabling conditions on the institutional level are investigated. Thus, stakeholders' perceptions of the approach in question as well as context conditions are in the center of this study.

In the following sections, relevant perspectives on policy transfer research and the role of local context and meso-level ownership for sustainable transfer are illustrated and contextualised through examining the current state of vocational training in India. The actual transfer object of a quality measurement approach is illustrated, followed by a description of the research methodology. Results are discussed and contextualised with findings of recent discourse. While the study focuses on aspects of quality measurement as a basis for self-directed institutional development, it is assumed that results are of general relevance for transfer activities at the meso-level of VET institutions.

## POLICY TRANSFER IN VOCATIONAL TRAINING

The transfer of 'ideas, and discourses, institutions and practices across international boundaries' (Cowen, 2009, p. 315) has a long tradition but is contested at the same time. Ochs (2006) defines four prevalent motives for educational borrowing that relate to distinct political intentions. However, it is the fundamental goal of (vocational) educational (system) improvement, which generally motivates the idea of transfer, and is targeted by most actors in related activities (Burdett & O'Donnell, 2016). Thus, a policy can be defined as a directed strategy of action that relates to a specific topic or problem. It can take the form of an idea or vision or may specify concrete steps for actions or processes (Stockmann & Meyer, 2014). The process of policy transfer can happen at different levels and comprises the transmission within a country — including local contexts, across countries and globally (Evans & Davies, 1999; Perry & Tor, 2008; Phillips & Ochs, 2004). Within the tradition of educational research, Phillips and Ochs apply the term 'policy borrowing' for educational transfer that is a "conscious adoption in one context of policy observed in another", describing a 'deliberate, purposive phenomenon' (2004, p. 774) on the part of the borrower.

Policy borrowing is, therefore, clearly distinguished from imposed policies or foreign influences that are reflected in educational systems. Within an increasing internationalisation, transfer does not exclusively relate to processes that take place from one country to another but also involves the worldwide diffusion of specific patterns. The former often refers to the transfer of complex systems or individual system components; the latter is closely linked to globalisation and convergent lines of development brought about by it (Dolowitz & Marsh, 2000; Li & Pilz, 2021). These global trends are accompanied by international standardisation processes that launch similar structures and processes worldwide or regionally (Lahiff et al., 2019). One example of such developments is the merging of political and economic spaces into communities of countries, such as the European Union (EU) or the World Trade Organization (WTO), in which members must implement specific regulations and standards in their own political and economic systems (Dolowitz & Marsh, 2000, p. 6).

International agencies have promoted policy transfer, especially in VET, due to its significance for economic development (King, 2020), and thus, have promoted convergence for years, specifically by their aid and reform activities in developing countries (Anderson-Lewitt, 2003; Barabasch et al., 2021; King, 2020; Maurer & Gonon, 2014). A view on educational systems and practices worldwide reveals ongoing processes of harmonisation and alignment because of globalisation (Li & Pilz, 2021).

## Local context as factor for transfer success

Policy transfer does sometimes fail, meaning that the transfer did not occur the way it was intended initially by relevant actors (Dolowitz & Marsh, 2000). Dolowitz and Marsh (2000) identify different reasons for policy failure, one of them termed ‘inappropriate transfer’ which occurs if a policy is imported from a country that shows significant differences in “economic, social, political or ideological” contexts (p. 17), and insufficient attention is given to such differences in terms of recontextualisation of a policy. The role of context conditions in both countries (Phillips & Ochs, 2003) become prevalent here. Pilz (2017) provides a structure for the transfer of VET systems or parts of such systems to analyse the capacity for successful transfer. Addressing the system level of vocational education, it provides a means to classify countries regarding the perception and integration of VET in the specific socio-cultural context. In both one-to-one transfer and global alignment trends, embedding in contextual factors takes on a high priority (Ball, 2008; Euler & Wieland, 2015; Li, 2021).

In research on transfer in education, it is generally emphasised that a direct transfer of policies from one context to another is questionable (Phillips & Ochs, 2003). Steiner-Khamsi (2012) states that “it is the context that provides the clues for understanding why a borrowed reform resonates”. Broadfoot (2001) underlines the role of context, especially when considering educational borrowing, as factors form a ‘complex network’ and include a wide range of aspects like “the individual student’s ‘learning biography’, teachers’ understandings and professional priorities, the ethos and arrangements of the particular classroom and larger institution ... and the culture and priorities” (p. 261) of countries at a national level. She focuses on the role of local stakeholders at the micro-level (Strittmatter & Böhner, 2019) of policy implementation that are critical drivers of adaption processes (Kim, 2017; Phillips & Ochs, 2003).

Such processes may also lead to the success or failure of policies (Terway & Steiner-Khamsi, 2017). Here, the assumption is not primarily of transfer-impeding influences but rather of local adjustments caused by a transfer (Ozga & Jones, 2006). According to

Steiner-Khamsi (2014), local context determines how policies are implemented and modified (recontextualisation). Terway and Steiner-Khamsi (2017) explicitly put local actors' roles into focus, their motives, and decisions regarding the original intentions of a borrowed policy. In their study on the transfer of the German dual system to China, India, and Mexico, Pilz and Wieman (2020) found that local actors shape how training is realised, and which elements of VET may be transferred. Local actors shape policies based on their needs, and such needs, in turn, are determined by the regional context conditions, most specifically in the case of India. Thus, the first step in a transfer approach must be an extensive and detailed analysis of the different needs and perspectives of the various stakeholders involved (e.g., employers, young people, public officials, representatives of the education system, trade union representatives) on the ground. The notion of ownership for effective and sustainable transfer activities is central to the consideration of the meaning of stakeholders at the level of actual policy implementation.

## The role of ownership and participation

The idea of ownership primarily evolved in, and has characterised, development cooperation for decades. It is considered a core pillar for effectiveness and sustainability in policy implementation. This is also stated in the Paris Declaration at the Second OECD Forum on Aid Effectiveness (OECD, 2005). However, ownership and what it involves remain contested (OECD, 2011; Tomlinson, 2011). Ownership is often equated with terms like 'identification', 'commitment' or 'buy-in' of all stakeholders regarding (development) policies and outcomes (Keijzer et al., 2018; Nastasi et al., 2000; Tomlinson, 2011). It also incorporates notions of 'control' and 'influence' and is thus, profoundly interrelated with notions of participation and empowerment (see World Bank, 1996). Rose (2005) notes that "national governments are expected to 'take ownership' of programmes, that is, to be politically committed to maintaining as its own programme whatever is kick-started by foreign aid" (p. 98). The primary aspect of sustainability of policy transfer in development cooperation becomes evident here, as former approaches have shown that in the absence of ownership, policies are not adopted on a long-term basis (OECD, 2011; Pilz, 2017).

Ownership and empowerment shall enable locally owned and locally driven cooperation. Ownership was initially developed in the context of cooperation between governments and thus, targeted the macro-level of policy transfer. However, the concept has recently been widened to different levels in cooperation activities, making it a multi-stakeholder issue. In development cooperation and other transfer settings, interaction is characterised by high numbers of actors in constant engagement (Borman & Hamborg, 2015; Tomlinson, 2011). The role of actors in the actual local implementation of policies like programs or interventions is increasingly focused (Nastasi & Hitchcock, 2016; Nastasi et al., 2000).

Regarding VET transfer, Stockmann, 2014; see Stockmann & Silvestrini, 2013, p. 167) identified ownership as a key component for sustainability. Stockmann and Silvestrini (2013) conducted a meta-evaluation of a total of 25 vocational training projects of the former Gesellschaft für Technische Zusammenarbeit (GTZ), the German Development Service (DED), and Capacity Building International, Germany (InWEnt) to assess the effectiveness and sustainability of German vocational training promotion.

From the findings, Stockmann (2014) created a concept of key variables for sustainability. This visualizes four decisive factors: system compatibility, ownership, personnel and flexible control. Ownership and personnel are identified as internal factors, while system compatibility is an external factor targeting the system/policy context. The four factors are considered highly interdependent. For

this study, Stockmann's definition of ownership will be applied, characterising ownership as common 'goal acceptance', a solid consensus among the stakeholders about the vision to be pursued and the strategies and measures to implement it. Stockmann not only targets political support levels and partner organisations but specifically includes the 'implementing partners' of projects. Participation has been identified and integrated into the model as a sub factor for ownership. It involves aspects of 'control' as stated above, like joint development and joint steering of projects (see also Luyet et al., 2012).

The World Bank (1996, xi) defined participation as "a process through which stakeholders influence and share control over development initiatives and the decision and resources which affect them". Participation may be realised in different degrees that range from "information" to "consultation", "collaboration" and "co-decision" of actors (Luyet et al., 2012, p. 215). Specifically, participation processes at the meso- and micro-level of local implementation serve different functions. In the context of policy transfer at the level of VET institutions, Li and Pilz (2019) investigated the implementation of peer review for quality management in Chinese vocational schools in a prospective evaluation. They found that the approach reduces resistance against participation in quality management and increases responsibility for development activities, thereby demonstrating the connection between active participatory processes and ownership. Notably, the approach highly emphasises participatory processes in the form of intensive communication and collaboration among teachers.

Participatory approaches allow for an effective contextualisation of measures (Nastasi & Hitchcock, 2016), create identification and commitment (Nastasi et al., 2000), and – depending on the degree of participation (Luyet et al., 2012) – allow for the continuously sustaining and institutionalising of policies after external support has ended or is diminished (Nastasi et al., 2000). However, Maurer and Gonon (2014) state that: "... far too often, local actors who are familiar with the respective context are not the key drivers of policy design and implementation – a fact that clearly hinders local ownership of development efforts" (p. 19).

Ramasamy and Pilz (2019) addressed the problem of stakeholder involvement in a study of the transfer of competency-based curricula in garment-making to India. Their approach focused on the role of trainees as final receivers of a policy, who were actively involved in shaping focus, contents, structure, and specific measures of the intervention. Findings indicated sound acceptance and fit of the designed course, as trainees showed high levels of commitment and satisfaction with course outcomes.

When considering Keijzer et al.'s (2018) ideas around promotion of ownership it is noted that context is one of the three pillars that need to be considered, in addition to institutions and actors themselves. Next to systemic context conditions, it is precisely the local context that destines and shapes requirements and scopes, possibilities for actions of vocational training institutions and their stakeholders (Nastasi & Hitchcock, 2016). Thus context is a decisive factor to create policies that adhere to potential owners at the meso- and micro-level.

## THE INDIAN VOCATIONAL TRAINING SYSTEM AND ITS QUALITY

India faces general challenges in policy implementation due to a complex interaction of structural, socio-cultural, economic, and geographical factors (Alexander, 2001). In the Indian education system and discourse, a general distinction is made between general education and academic education, and between vocational education and vocational training (Bandhari, 2021; Pilz & Regel, 2021). However,



this separation is not taken up within the scope of this study. Vocational training is meant to cover different types of structured and planned training in various learning levels like vocational schools or work-based learning in companies. Still, the clear separation of education streams is also institutionally anchored by separate governance structures in the form of different ministries and subordinate authorities (British Council India, 2016).

The most significant proportion of Indian youth opts for general education courses (Bhandari, 2021). Vocational education has a relatively low social status and can be described as clearly negatively stigmatized, specifically in primarily manual areas (Ajithkumar & Pilz, 2019; Singh, 2001; UNESCO, 2020). For more than a decade the Indian government has been striving to promote the existing vocational education system (UNESCO, 2020). The first Skill Development Policy in 2009 set the ambitious target to increase the proportion of vocationally formally and informally trained people from 2% to 50% by 2022, thus creating a skilled workforce of 500 million (King, 2012; Mehrotra, 2014). The first policy underwent a revision in 2015, and quality assurance aspects were also given a higher priority (MSDE, 2015). Nonetheless, the primary focus of past initiatives has been on massively increasing the number of training places in formal initial vocational training and creating downstream qualification opportunities for workers in informal sectors of the economy (Pilz & Regel, 2021). Central problems regarding the goal of modernising the system lie in its low social status (UNESCO, 2020), the complexity of the system due to separate control structures for vocational education and training, and the coordination of responsibilities between central national control and the autonomous federal states (ILO, 2014).

Past and recent attempts to improve quality were primarily directed at training in Industrial Training Institutes (ITIs). Together with Polytechnic Colleges, ITIs form the essential pillar of the Indian vocational training system (MSDE, 2020). Currently, there are about 15,000 private and government ITIs with a total capacity of 2,658,000 training places (MSDE, 2020). Most ITIs are private institutions (MSDE, 2020) that are government-accredited (Rao et al., 2014). The training institutes offer courses in different trades under the Craftsmen Training Scheme (CTS), with varying course durations between 6 and 24 months. In addition, courses can be in the secondary education sector (Wessels & Pilz, 2018).

In contrast to ITIs, which have a primarily practical orientation, polytechnic colleges offer vocational training programmes within the framework of tertiary education that are predominantly theoretical in nature (Schneider & Pilz, 2019). As part of the higher education sector, polytechnic colleges were administered by the Ministry of Education until recently. However, in the context of several restructuring activities under the National Education Policy 2020 (MoE, 2020b), responsibilities shifted to the Ministry of Human Resource Development and Entrepreneurship (Ramasamy et al., 2021), which did lately administer vocational training activities under the CTS only. However, both institutions' quality assurance and certification processes are still operated under different authorities and programmes. Currently, there exist 3,800 polytechnic colleges with a capacity of 1,500,000 places (MoE, 2020a). Due to the higher entry requirements and their location in the field of vocational 'education', polytechnic colleges enjoy a higher reputation than ITIs. They are primarily used to enter subsequent academic education after successful completion (Schneider & Pilz, 2019).

## Quality of VET

The quality of the Indian vocational education system has often been criticized in the past. Several studies reveal fundamental and persistent problems of institutional education quality



and within vocational education in India. ITIs and the vocational education and training system are underfunded (FICCI, 2006; UNESCO, 2020), and institutions' infrastructural equipment is still inadequate in many places (Rao et al., 2014; Tara et al., 2016). As a result, the overall supply is quantitatively insufficient. Simultaneously, the utilisation of institutions is unevenly distributed, and capacities are not fully utilised (MSDE, 2020; World Bank, 2008). In addition, the supply of teaching staff is inadequate, and less than 20% of hired trainers meet government qualification requirements (MSDE, 2020; NSDC, 2011). As a result, a large proportion of the teaching staff are underqualified in professional and pedagogical skills (Ajithkumar, 2016; Mehrotra, 2014; NSDC, 2011). The teaching itself exhibits a high level of theory, coupled with a lack of practical relevance and application orientation (Bhandari, 2021; Mehrotra, 2014; Rao et al., 2014). Consequently, the quality of training and the employability of graduates is often criticised by employers (Neroorkar & Gopinath, 2020; Pilz & Wiemann, 2020; Regel & Pilz, 2019; Tara et al., 2016; Zenner et al., 2017), leading to unemployment despite having completed education within the field of prospective employment (World Bank, 2008; Zenner et al., 2017).

In this context, the fact that graduates are often not trained to match market demand, and course content is regularly outdated, has an exacerbating effect (Rao et al., 2014). This reflects the historically evolved supply orientation of formal vocational education and training, which, as a purely state-controlled system (Mehrotra, 2014; World Bank, 2008), had little to no involvement of the private sector and no efficient mechanisms for determining the demand for graduates, qualifications, and job profiles (Pilz & Regel, 2021).

Quality management processes in VET are fragmented and characterised by inconsistent standards, ineffective measures, and unilateral top-down structures (British Council India, 2014). State-initiated and controlled measures for quality development at the institutional level are limited to aspects of essential quality assurance. Holistic quality management approaches as the basis of institutional school development are currently not implemented. Mechanisms in ITIs and polytechnic colleges include accreditation by the relevant national state authority (DGT, 2018b; MSDE, 2020) and the reporting of a certain number of quantitative indicators to superior state ministries. These include, for example, the number of courses, occupancy rates, class sizes, drop-out ratios, graduation rates, teacher vacancies, and direct 'job placement' after the end of training (Tara et al., 2016). The 'Grading of ITIs' program offers certification of institutes with a grade from zero to five as an external evaluation and is intended to enable comparability of training institutes and fundamentally promote benchmarking (DGT, 2018a). In addition to the reporting requirements of the DGT and state authorities, the Grading of ITIs is the only quality assurance mechanism for ITIs in India, besides a voluntary ISO 29990 certification of the institute. Based on the achieved rating, institutes receive, e.g. subsidies and incentives, which allows them more scope for autonomous decision-making. However, such expansions of autonomy in the vocational training sector are currently very limited and restricted to the permission to include new vocational profiles in the training program and greater flexibility in charging course fees (see DGT, 2018a; MSDE, 2020). For Polytechnic Colleges, the NBA offers a voluntary quality assurance mechanism based on the Washington Accord agreement (NBA, 2021; Sahasrabudhe, 2015) that incorporates essential principles of outcomes-based education. While the NBA quality assurance serves for accreditation purposes, the All India Council for Technical Education (AICTE) underlines its function for institutional quality development (Sahasrabudhe, 2015). Similar to the grading of ITIs scheme, more autonomy is given to institutions that perform well in the accreditation process. Both Grading of ITIs and the NBA accreditation process show weaknesses in

stakeholder acceptability and an intended function of quality improvement of VET institutions. Regarding a possible transfer of a quality approach as developed for the current study, such weaknesses need to be considered.

## A QUALITY FRAMEWORK AS THE OBJECT OF TRANSFER

In the context of a current project study, an approach for measuring institutional educational quality was developed, which — as a diagnostic instrument — establishes a basis for quality development and, thus, as a transfer object, enables possible innovation processes for Indian VET school management. The project consists of an Indo-German research team that designed the framework addressed here for a possible future implementation in Indian VET. The approach incorporates the idea of autonomous school development at the institutional level, in line with international developments and empirical research (Gertler et al., 2007; Santibanez, 2007).<sup>1</sup> As part of the research method, it functions as an example of a decentralisation policy at the institutional level. From the perspective of educational policy transfer and ‘lesson drawing’ (Rose, 1991), the framework has been developed as a so-called ‘hybrid’ as it is a synthesis of international and Indian approaches to quality management in education (see, e.g., HMIE, 2006; NIST, 2019; UNESCO, 2005). The framework’s structure and content reflect existing international approaches that have been implemented extensively outside of India in international school development (see, e.g., Blom & Meyers, 2003; UNESCO, 2005). Still, the framework includes a first set of adaptations resulting from co-development activities with Indian experts as part of a contextualisation process. The approach illustrates ‘gradual transfer’ compared to direct transfer (Li & Pilz, 2019) when considering the hybrid form and initial adaptations.

The basic structure of the approach integrates input, process, and output factors of educational quality (Heneveld & Craig, 1996; Scheerens & Bosker, 1997), which are transformed into concrete quality criteria. The underlying approach is extended and systematised by an organisational perspective on institutional management (Wahlstrom et al., 2010). The framework comprises seven fields of educational quality. Six fields refer to core areas of institutional processes and issues, while another field focuses on school output in terms of actual student learning outcomes and performance. These include ‘Institutional Sphere and Context’, ‘Personnel’, ‘Educational Planning, Provision and Assessment’, ‘Learning and Teaching’, ‘Leadership and School Management’, ‘Industry Linkage’, and ‘Learner Achievements’.

Quality fields are further distinguished in separate dimensions and criteria. A quality dimension focuses on a more specific domain of a quality area. Quality dimensions encompass thematically related qualities and activities within quality domains. They include criteria identified as relevant to educational quality within the specific context. Examples of quality dimensions within the Learning and Teaching domain are: ‘Quality Classroom Teaching and Management’, ‘Learner Orientation’ and ‘Holistic Vocational Focus’. Quality criteria represent complex constructs represented by a larger number of indicators. An example of a criterion in ‘Educational Planning, Provision & Assessment’ is ‘Demand-Oriented Course Program’ (Ramasamy et al., 2021).

<sup>1</sup>For further information on content, structure, and the development process of the framework, please refer to Ramasamy et al. (2021), as a more detailed description would extend the scope of this paper.

The concrete teaching-learning processes at the instructional level (Creemers & Reezigt, 1996; Hattie & Zierer, 2019), which are guided and structured by teachers, are considered crucial for quality and the associated outcomes. Their performance is associated with existing competences, personal motivation, and institutional contextual conditions (Yukl, 2002). Within the framework, the quality of the teacher-learner interaction is considered a core factor in educational quality.

The quality of education provided by institutions is impacted by several factors, including staff, institutional context, organisational and leadership aspects of the institution, and involvement of stakeholders outside the institution. These factors affect education and its quality, directly and indirectly, and yet education is the core activity in which these institutions operate (Wahlstrom et al., 2010). It must be emphasised that learning outcomes always arise from an interplay of many factors, and the extent and specificity of those factors cannot be clearly determined (Alexander, 2008).

Quality management as part of school development, in the sense of a self-directed, systematic, and diagnosis-based process, is currently not formally anchored in the Indian VET system (Ramasamy et al., 2021). The approach illustrated here has been designed to offer a possible means for institutional quality development in India and targets to address challenges in significant areas of educational quality at the institutional level. A transfer and implementation of self-directed quality development processes may offer further potential for quality improvement. However, past initiatives of VET transfer, specifically in development cooperation, have shown that ownership is of significant relevance to sustaining programmes (OECD, 2011, 2019). Ownership can be expected to be of high relevance in instances where measures that involve a high level of control, responsibility, and autonomous steering at the meso-level are in place, such as in institutional development activities (Gertler et al., 2007).

## METHODOLOGICAL APPROACH

Within the study, ownership is defined as consensus among implementing stakeholders about objectives, strategies, and measures of a specific policy (Stockmann, 2014). Furthermore, participation in the form of responsibility and different degrees of 'control' (Keijzer et al., 2018) is considered essential. Stakeholder ownership depends on the acceptability (Nastasi & Hitchcock, 2016; Nastasi et al., 2000) of an intervention or programme. Acceptability maps satisfaction with various aspects of innovation, like content, complexity, delivery, or credibility (Proctor et al., 2011).

Different criteria for acceptability are measured as part of a prospective evaluation (Li & Pilz, 2019) in a first pilot study. This was incorporated into the research design to investigate existing and future potentials for ownership. A research approach was chosen that provides openness and flexibility and allows for iterative development cycles and the integration of practical experience into the research process. The Design-Based Research paradigm provides the basis for recurrent processes of analysis, design, evaluation, and revision of the concept because it considers the practical approach and the relevance of the actual development goal (McKenney & Reeves, 2019). This approach allows for the development of a technically sound concept while being adapted as much as necessary to the cultural and socioeconomic realities of the target country. In the current development approach, with a view to the goal of enabling and purposefully designing an innovation for transfer processes with particular stakeholder ownership, a participative, formative evaluation is important to generate original data.

Therefore, an essential part of the research design is including members of the target context in the research and development team to ensure a consistent participatory development approach (Nastasi & Hitchcock, 2016). Teaching staff and school administrators implement reform projects on the ground and, therefore determine success and failure (Daun & Mundy, 2011; OECD, 2019).

A pilot study in four institutions constitutes the first evaluation cycle (McKenney & Reeves, 2019) and serves to explore ownership potential and to validate instruments. Next to aspects of acceptability of the approach, the study has an explorative character regarding institutional context conditions (McKenney & Reeves, 2019). Therefore, the study consists of two strands, one considers content, structure, and application/measures of the developed policy, and the other investigates institutional context conditions for quality management. The qualitative research design consists of steps involving a personal introduction of the framework to the council, followed by group discussions and interviews in different phases. Like that, perceptions, and reactions of participants before and after intensive engagement with policy content are to be measured to get realistic data and measure general acceptance before and after interactions (Edeling & Pilz, 2016).

From April 22 to September 22, interviews were held in two Polytechnic Colleges and two Industrial Training Institutes in Bangalore, Karnataka. Initially, contact and access to institutions proved difficult. Consequently, access to the institutes was established through state authorities under assistance of the research network. Criteria were their accessibility in Bangalore and sufficient structure and size (e.g., full-time school principals). Ten individual interviews were conducted with parts of the school management on contextual conditions and model implementation, and a total of nine group discussions with teachers and school management on quality criteria ( $n = 58$ ). All interactions lasted between 60 and 90 min.

Interviews take the form of problem-centred interviews (Witzel & Reiter, 2012) in the form of group discussions with teaching staff and school management, and semi-standardised expert interviews with parts of the school management for qualitative field-based exploration of the context (McKenney & Reeves, 2019). These enable the development of expert knowledge in complex problem situations (Gläser & Laudel, 2004), which can be problematic for outsiders, especially in the Indian context. The field-based exploration of context includes complex questions on formal requirements about quality assurance in Indian vocational schools (policy synthesis) (McKenney & Reeves, 2019). It also includes the stakeholders' view of the problem from different perspectives (perception poll), and multiple questions on quality assurance measures implemented in everyday school life and cooperation within the organization (field portrait) (McKenney & Reeves, 2019). Lastly, it includes questions on strengths, weaknesses, obstacles, and opportunities about the problem of a quality approach to be implemented (SWOT analysis) (McKenney & Reeves, 2019). The group discussions with the school management and relevant teaching staff in functional positions serve to evaluate the approach's individual quality criteria and indicators. The basis of the problem-centred interview here allows insights in individual actions and subjective perceptions (Witzel & Reiter, 2012), which are significant for the goal of contextual fit and stakeholder acceptability. Semi-structured interviews for group discussions on the content of quality criteria were designed to address teachers and school management separately because of both groups' expected different levels of expert knowledge (Brinkman, 2013). However, all interview and discussion guidelines were based on principles of the problem-based interview and were supplemented with postscripts, including observation descriptions (Witzel & Reiter, 2012).

Evaluation criteria for the creation of the question set consist of the overall acceptance of the approach (Edeling & Pilz, 2016), relevance, perceived relevance of stakeholders (McKenney & Reeves, 2019), form and complexity, social validity (Nastasi & Hitchcock, 2016), and the applicability of the concept in terms of time commitment and resources. Such criteria map the broader concept of 'acceptability' (Nastasi & Hitchcock, 2016) that is crucial for 'goal acceptance' and identification with policies and, thus, ownership. The interview material was fully transcribed and analysed using methods of qualitative content analysis (Kuckartz, 2014) via the tool MAXQDA. The coding system consists of deductive codes based on evaluation criteria and inductive codes built from the material to consider the explorative character of the pilot study (McKenney & Reeves, 2019).

## RESULTS AND DISCUSSION

The following section describes the results of the pilot study and discusses existing and possible future pathways of ownership by stakeholders. Results are discussed with reference to the four variables of sustainable development cooperation in VET: ownership, system compatibility, personnel and flexible control (Stockmann, 2014). These four factors are analysed and framed with regard to context conditions on site.

Stakeholder acceptability of the approach in question is considered central for *ownership*, especially when taking into account the notion of 'goal acceptance' (Stockmann, 2014). Stakeholder acceptability may map in perceived relevance, feasibility, social validity and cultural relevance (Nastasi & Hitchcock, 2016). Stakeholders in all institutions reacted positively to the evaluated transfer model for quality measurement. Specifically, its function for self-evaluation and a realistic assessment of institutional strengths and weaknesses was appreciated.

It helps to know whether they are going on the right path? Whether meeting the standards? Just like in other countries or not ...once government appointments are done, we are doing certain years of service and we get the certification to go to the next grade. But you would not know, they all have satisfied the required quality for the next stage. ... But if there is an assessment at different steps, then it will be helpful. To impart a good education to the students... (PT 1, P)

Just now we discussed, the cooperative leadership. And then other facility. I want latest advance media; we are still using the black board. After studying this ... or other ITIs, we will come to know to fill the gaps and meet the market also, so those things we want. (ITI 2, T)

These findings contradict some results from international development cooperation and Indian research, where stakeholders were reluctant (Govinda, 2002) or sometimes even negative regarding approaches for school development and decentralisation initiatives (Daun & Mundy, 2011). Both quotations illustrate stakeholders' general commitment and motivation towards quality development and readiness for bottom-up development processes like exchange and comparisons with other training institutions (Hulme, 2006). However, none of the institutions had experience with the implementation of a systematic quality management system. *Personnel* (Stockmann, 2014) has been identified as a relevant factor for sustainability.

Stakeholders in all institutions and levels expressed the need for further information, training and financial and material support regarding quality development. Generally, the need for state regulations and support in quality assurance was formulated.

Definitely, we wish to have quality measures to be incorporated. Only thing is you know some enforcement is required, some support in terms of resources is required. (PT 2, P)

We only create the awareness for the quality. But we have not evolved any special module or special programme of certain hours where the quality concepts have been delivered to our trainers, this has not been attempted much on this yet. (ITI 1, T)

Stakeholders expressed the need for support in the execution of quality assurance regarding existing state models and the evaluated approach. The model developed within the current study was rated positively in aspects where it provided structures that appeared less complex than existing Indian approaches and thus, promised feasibility. For the development of ownership at the meso-level, a need for feasible approaches and information and training of stakeholders became apparent (Nastasi & Hitchcock, 2016; Patton, 2012; Stockmann, 2014). In addition, stakeholders asked for support in actual quality improvement after self-evaluation. Here, the need for distinct guidance and counselling and substantial help in implementing quality improvement measures was expressed (Li & Pilz, 2019).

In general, participants underlined the problem of high diversity of standards across institutions and high standards and aspirations of the framework evaluated and existing state approaches. The importance of *flexible control* of policies became prevalent in the majority of interviews and was expressed as one of the major problems in existing approaches:

Because some institutes are well equipped, and some institutes are lacking behind. In such a case, this appropriate methodology mix, here it focuses on different methods of teaching. So, in all the institutes, you cannot expect this, only in well-developed and like model something like that, then different views are there ... (ITI 1, T)

Consequently, stakeholders wished for some flexibility to be integrated as part of the policy, to allow them some scope for own adaptations or integrated means to suit the approach to existing standards and preconditions.

You may prescribe a quality concept tool, out of those quality concept tools, in my ITIs (we need to see) what are all modifications to be done to adjust to the local needs. Because the level with which we start that is the basis. So, what is the quality level when we start implementing these quality tools that is more important ... (ITI 1, P)

While aspects and ideas of systematic self-directed quality management as part of school development still need to be established in VET institutions, quality development is yet seen as a continuous process. However, *ownership* regarding existing measures is relatively absent due to different systemic circumstances:

The irony is that even NBA is not compulsory. See, when the regulatory authority enforce us, we have to follow. But the regulatory authority itself is not enforce us.



The government on its own has bias, we have not received any support. By default, we have to maintain certain quality, but there is no authority who checks the quality standards. (PT 2, P).

Stakeholders on-site feel that they lack support regarding quality assurance and development. Furthermore, for existing measures, institutions need to apply for funds at the subsequent higher authority to participate in grading or accreditation processes, which may discourage certain institutions from taking part. Within this study, stakeholders at the institutional level have shown high degrees of commitment and ownership to the general idea of institutional quality development, benchmarking processes and adherence to standards. At the same time, self-directed quality development is highly restricted by limited institutional decision scopes. Stockmann (2014) defines *system compatibility* as the most decisive factor for sustainable transfer. Both system compatibility and ownership are highly interrelated (Stockmann, 2014), as the former significantly influences the acceptability of stakeholders.

Currently, the focus in India is primarily on curricular content and curricular-didactic issues about transfer and innovation projects in vocational education. The ongoing revision of curricula in the vocational training sector based on outcomes-based education principles and their alignment with the National Skills Qualification Framework (Singh, 2012) should be mentioned here (MSDE, 2020). In addition to an ongoing focus on input-based modernisation and control, aspects of decentralisation also play a role, albeit partial and fragmented. Some stakeholders recently discussed and envisaged autonomy for teachers and organisations regarding higher education (MoE, 2020b; Sahasrabudhe, 2015; Sancheti & Pillai, 2020). However, TVET organisations of significant relevance like polytechnic colleges and Industrial Training Institutes were, for the most part, excluded from the debate in past years. Regarding context conditions for institutional development based on self-evaluation, Indian VET institutions are restricted in different areas of administration, educational planning and on the area of shaping concrete learning-teaching processes:

We want the coordination of all the staff and some more disciplinary standards for students and some support from the higher authorities. (PT 1, P)

We don't have the provision to change the curriculum, curriculum have to be changed by the board of technical education ... (PT 2, T)

But, still social media, Facebook, twitter, Instagram ... we do not have any right, so ... government ITIs, they will not have this. ... This actually should be decentralised. A partial website for all...should be given. They can upload, but the permission is not there. Because it is under the control of our commissioner. (ITI 2, T)

At the time, structures are not fully compatible with many aspects of self-driven quality development. While a voluntary transfer of a quality approach like the one targeted within this study incorporates a top-down element of educational governance by its own means, the Indian system itself is characterised prevalently by strong top-down structures in all parts of the educational system and its steering mechanisms (Sancheti & Pillai, 2020). In conclusion, study results show a general demand for more autonomy, which reflects other empirical findings (see Govinda, 2002).

Here, the role of participation as a relevant subfactor of *ownership* (Stockmann, 2014) becomes prevalent from two perspectives. Participation can function to shape policies according to local needs and conditions. At the same time, in the case of quality development policies like the one intended here, higher degrees of participation and decision-making regarding institutional development have to be compatible to systemic and administrative structures, showing *system compatibility* (Gertler et al., 2007; Stockmann, 2014).

It has been stated before that local forces condition the outcome of policies (Daun & Mundy, 2011, p.10). This factor is highly relevant, as self-directed adaptation processes may also lead to ineffective policies, unintended effects or even contradict state reform objectives (Maag-Merki, 2021). Stakeholder needs and opinions are sometimes contradictory, and participation processes can lead to frustrations (Reed, 2008). Such contradictions may concern the internal level of the institution, for example, different exceptions of school management and teachers (OECD, 2019; Terhart, 2013), or may concern external levels, for example, different objectives between the national state and the objectives of VET institutions. Especially polytechnic colleges expressed the wish to raise entrance requirements for students to raise the quality in institutions (Schneider & Pilz, 2019). However, national quality goals involve more significant access to education. In such cases, distinct moderation (Strittmatter & Böhner, 2019) and acceptance support the creation or sustaining of ownership. As a result of the data collected, potentials for ownership were identified. Several aspects of high importance were pinpointed in relation to ownership and the interrelated factors of system compatibility, personnel and flexible control. These particularly include relevance and feasibility of the policy in question as part of acceptability and support and legal requirements set by government. Further factors determined as highly relevant are participation in the form of responsive structures, co-development and higher degrees of autonomy, supporting system structures, and information and training as well as moderation processes as a continuous part of the implementation process.

## CONCLUSION

Innovation initiatives in India encounter some specifically Indian conditions that complicate the transfer and sustainable implementation of measures. The country is highly complex in terms of size, population density, and religious and linguistic diversity. Education-related framework conditions in urban and rural areas differ significantly. In addition, the respective states differ not only in terms of socioeconomic characteristics, but each has its own self-contained and complex educational structures (Govinda, 2002). A vocational education system centrally controlled by the national government with a one-sided focus on input control has proven rather ineffective in this regard in the long term (Mehrotra, 2014; Pilz & Regel, 2021). Mechanisms for bottom-up regulation can facilitate the necessary local fit of reforms and their efficient implementation (UNESCO, 2020) and real functioning school development processes adapted to institutional needs and conditions (Ramasamy & Pilz, 2020).

Existing quality assurance processes show weaknesses in terms of stakeholder acceptability and an intended function of quality improvement of VET institutions. Furthermore, most participants had no experience or exceeding knowledge regarding systematic quality management approaches in educational institutions. From the perspective of governance theory, the Indian state system and thus, also the state ITIs and polytechnic colleges have a robust hierarchical structure. The scope for shaping the respective institutions is limited for

principals (Sahasrabudhe, 2015). Implementation research shows that high degrees of participation (Luyet et al., 2012) are of great importance for the success and failure of control-relevant projects. In India, school administrators' administrative-structural framework for self-directed quality development processes would first have to be created to enable authentic ownership. While decentralisation processes for quality development in educational discussions in scientific discourse and in development cooperation in India (Dyer, 2005; Sancheti & Pillai, 2020; UNESCO, 2020) are increasingly gaining space, it is necessary to consider them in the specific country context (Li & Pilz, 2019). Stakeholders expressed their concern about state measures and the quality approach evaluated in the study to be too distant from institutional realities regarding standards and requirements (Dyer, 2005). Approaches need to be adaptable for specific institutions and allow for continuous quality development – instead of singular grading processes.

In addition to governance mechanisms that support transfer in the form of administrative framework conditions, control forces in the form of, for example, socioeconomic conditions, cultural patterns, attitudes, and value systems also play a significant role in the results to be achieved by measures (Daun & Mundy, 2011, p. 8). Studies have shown that reforms involving decentralization processes are less successful, especially in structurally disadvantaged communities (Gertler et al., 2007).

Another aspect that is frequently discussed in the Indian context is the pronounced understanding of hierarchy, which is firmly anchored not only structurally (see above) but also culturally and socially and influences the leadership style in organizations. Consequently, this also applies to school leaders and teachers in ITIs (Jambo & Pilz, 2018) and polytechnic colleges. School development implies the 'learning organization' in which every member is part of a change process (Hallinger, 2003). Participatory structures are hardly anchored in ITIs and polytechnic colleges and consequently may contradict not only certain value attitudes but also established work routines. Thus, within this study, stakeholders favoured institutional quality development but strongly requested them to be embedded in governmental structures and requirements. However, country-specific cultural aspects cannot be held solely responsible for barriers in the context of school development. Resistance to new leadership structures and the statement that they are not sufficiently prepared for innovation projects can be found in numerous studies across countries and entirely independently of the target regions' economic development level (Daun & Mundy, 2011, p. 30).

The implementation of comprehensive quality management places high demands on institutes. It should be noted that the international research discourse focused on the individual educational institution for development and design processes for a long time (see, e.g., Scheerens & Bosker, 1997) when looking at the impact periods of quality debates in the context of new governance models. In the Indian context, on the other hand, debates about institutional quality development as school development processes, especially in the vocational education sector, are currently only sporadically discussed (UNESCO, 2020). Precisely because of such challenging context conditions for the transfer, current study results have verified the role of ownership at the meso- and micro-level of implementation. Despite difficult context conditions, participants were open towards the introduced transfer approach and showed high degrees of motivation regarding self-directed quality development. Authentic commitment to development may be promoted by thorough stakeholder acceptability of the policy in question, participation in forms of information, training, co-development and control and internal and external moderation processes. This is possible when assuming system compatibility, and

adequate administrative and infrastructural preconditions are in place (Gertler et al., 2007; Stockmann, 2014).

When considering policy transfer research, the role of ownership is primarily discussed from a theoretic perspective. When discussing a general lack of transfer studies targeting the institutional meso-level compared to transfer on the system level, further research on the role of local implementers would enhance the discussion and establish criteria for successful and sustainable transfer activities in different areas of vocational training.

There were some limitations to the research approach presented in this paper. Data can only provide initial indications and, considering the sample size, the focus on one urban area as well as one state only, findings should not be understood as empirically validated results. Specifically in consideration of size and diversity of the subcontinent, data should cover different urban and rural regions as well as states. Institutions and participants were selected by authorities and respectively principals. However, with regard to the choice and composition of participants, individuals and groups were mixed with regard to gender, qualification and working experience. Still, a pre-selection that may conflict with research intentions cannot be precluded. Participants' answers may have been biased. Specifically for the Indian case, aspects of social desirability, as well as pressure caused by strong hierarchies and the interviews taking place in the direct working environment, may have influenced data. Stays in institutions were partly limited in time by the responsible authorities. Longer stays and observations would have served to validate or contrast results based on participants' answers. Therefore, further surveys will be conducted to expand the database, supplement initial results, and to generate reliable findings.

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