CHAPTER

1

Introduction

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1. Background

Skill development is one of the standard policy measures to support industrial development, together with growth in firm capacity, finance, FDI attraction, marketing, business linkages, innovation, and so on (Ohno 2014). It is also one of the fields where various donor agencies, including Japan and other bilateral donors as well as international organizations, have been actively supporting countries through development cooperation. Skill development can be realized through various activities, such as in-company training, training and education at technical and vocational schools, courses at science and engineering universities, and other forms of training and education.

This book focuses on the technical and vocational education and training (TVET) aspect, which is designed to supply skilled workers, in particular intermediate workers including the technicians and skilled machine operators required for industrialization (Mori 2019), with specific reference to the experience of Japanese industrial development cooperation. Based on selected case studies, the book examines whether and how Japanese industrial development cooperation for TVET has been implemented in such a way that it contributes to facilitating the processes of learning and local customization of the acquired knowledge by counterpart agencies and aid recipient countries—from the perspective of 'translative adaptation' as developed by Keiji Maegawa, a Japanese economic anthropologist (Maegawa 1998)[1].

As Joseph Stiglitz stresses, knowledge is the most important source of

[1] See Ohno (2024) and Ohno (2022) for more details of the theory and concept of Maegawa's translative adaptation and their application to development context.

growth. What separates developed from developing countries is not just a gap in resources, it is a gap in knowledge (Stiglitz 1999; World Bank 1999). Development entails learning how to learn. In the context of industrial catch-up by a latecomer country, learning occurs through an interactive process of 'foreign' and 'indigenous' elements where developing countries acquire foreign knowledge and technology, adapt these to country-specific circumstances, and eventually institutionalize them for local scaling-up. Therefore, it is important that the acquisition and diffusion of knowledge takes place locally and adapts to local differences in culture and economic practice (Stiglitz and Greenwald 2014). This is exactly in harmony with Maegawa's concept of translative adaptation.

As we outline in Chapter 2, in current academic and policy discussions on skill development and TVET the 'employer-led skill formation system' based on the liberal-market economy, is regarded as a common solution to the need to acquire such skills (Froy 2013, 346; Lloyd 2008, 178), and has often been promoted in developing countries through donor-supported projects. However, a close look at the reality on the ground suggests that developing countries are struggling to make employer-led skill formation systems work (e.g., Allais 2012). Many developing countries tend simply to import an employer-led skill formation system as a normative model without analyzing its adaptability in local contexts (Steiner-Khamsi 2014). Part of the reason for this is that the concept of translative adaptation is not sufficiently analyzed and the knowledge that is gained from it thus remains as 'tacit' knowledge, not externalized as 'explicit' knowledge (Nonaka and Hirose-Nishihara 2018). More serious attention and concrete understanding of the process of indigenous learning through translative adaptation is necessary in both developing countries and donors.

Here, key questions are: (i) what are the conditions and mechanisms that would enable a latecomer country to absorb foreign knowledge and technologies effectively, merge them into domestic elements and develop country-owned, localized systems for their diffusion; and (ii) how development cooperation can facilitate or hinder such processes. This volume tackles these questions through case studies on skill development, in particular TVET, giving specific attention to the experience of Japanese industrial development cooperation.

As we discuss in Chapter 2, Japanese development cooperation exhibits strong real-sector concerns, with a focus on industry structure

and components of the market economy such as human resources, technologies and firms, in the concrete context of targeted sectors and regions. Toru Yanagihara, a Japanese development economist, calls such features 'ingredients' approach, in contrast to the 'framework' approach of donors such as the World Bank, the United Kingdom (UK), and the United States (US) who tend to focus on the general improvement of regulatory frameworks and business environments (the level-playing field concept) (Ohno 2013; Yanagihara 1998). In addition, it is often noted that Japanese development cooperation gives importance to *gemba*—the place where real action takes place (such as factories and crop fields)—and provides 'hands-on' advice and knowledge transfer through joint work, based on the analysis of local situations (Ohno 2013). Therefore, if properly designed and implemented, there is the potential that such features of Japanese development cooperation may contribute to the promotion of greater translative adaptation through a co-creation process with partner countries (Ohno 2016), compared with the normative framework approach that tends to promote the adoption of international best practices (Steiner-Khamsi 2014).

However, few studies have sufficiently analyzed what the processes of translative adaptation are and what key factors of a hands-on approach are applicable in the field of skill development. Some earlier studies have attempted to identify characteristics of Japanese development cooperation projects (e.g., IDCJ and IC Net 2003), but they have limitations. First, they tend to focus only on successful cases. There should also be comparisons with cases where Japanese development cooperation activities were not able to take a hands-on approach (e.g., Yamada 2002), but little research has been carried out on why the delivery mode could not be adopted or why it did not work. Second, previous studies have not provided in-depth analyses on the process of translative adaptation in a specific subject area as they have simply compared projects across various fields.[2]

[2] IDCJ and IC Net (2003) analyzed the characteristics of development cooperation provided by the Japan International Cooperation Agency (JICA) in the light of capacity development, ownership, and knowledge acquisition. They also listed some limitations, which included: (i) concentration on successful cases; (ii) dependency on interviews with project counterparts conducted by national consultants as a sole information source; and (iii) insufficient comparison with other donor activities. This study neither specifically focuses on industrial development nor provides an in-depth analysis of translative adaptation processes, even though it includes the cases of King Mongkut's University of Technology in Thailand and the Sepuluh Nopember Institute of Technology in Indonesia, which are often presented as successful.

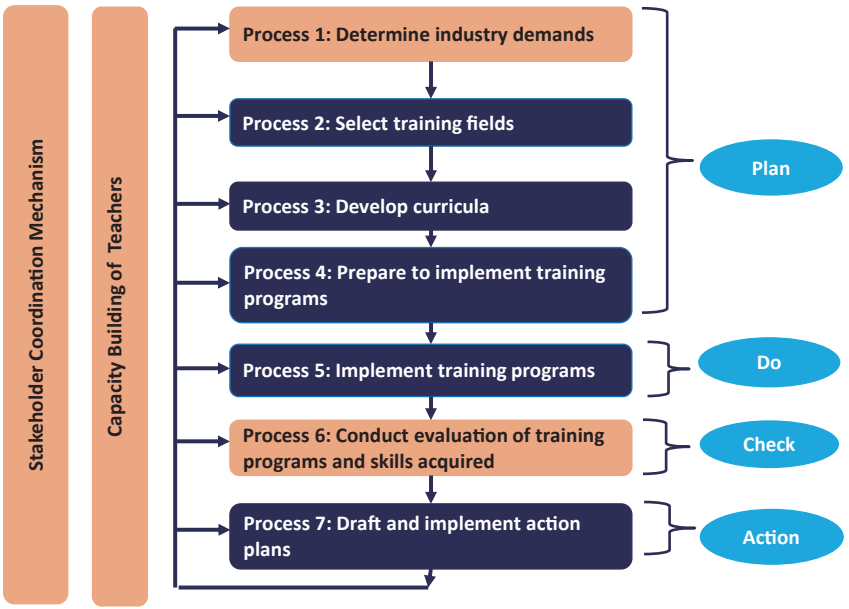
Finally, the complementarity between the framework orientation and the ingredients orientation has not been sufficiently analyzed. In fact, Japanese development cooperation activities are not necessarily limited to ingredients but sometimes aim to address frameworks, such as the development of skills standards. Without an in-depth analysis of its structures and characteristics in specific situations, it is hard to reproduce a hands-on approach to successful translative adaptation.

As a result, the Japanese ingredients and hands-on approach remains as 'tacit' knowledge, not externalized 'explicit' knowledge (Nonaka and Hirose-Nishihara 2018). This means that it has not been well recognized as a policy option for developing countries, even though it may help them promote translative adaptation. Therefore, comprehensive and subject-focused analyses are required to clarify what the process of translative adaptation is like and to identify what elements or conditions of an ingredients and hands-on approach are essential requirements in the promotion of this process.

2. Overview of the Research Project

This book is one of three volumes of practical research on Japanese industrial development cooperation—featuring industrial policy, skill development, and quality and productivity improvement (*Kaizen*)—that report on the research project, 'The Japanese Experience of Industrial Development and Development Cooperation: Analysis of Translative Adaptation Processes.'

This volume analyzes the translative adaptation process of donor-supported development cooperation, paying special attention to the experiences and characteristics of Japanese industrial development cooperation projects in the field of TVET that lead to skill development. From this research we draw implications for ways to enhance industrial development cooperation and facilitate the learning and translative adaptation processes in developing countries. A team of academic and development experts collected and analyzed the required data through interviews with key actors, such as national and local policymakers, the teaching and management staff of TVET institutions, and employers. More specifically, we asked the following research questions: (i) what sort of models, systems, or experiences has Japanese development cooperation relied on; (ii) what are the characteristics of Japanese development



Source: Elaborated by the authors based on JICA (2014, 10).

Figure 1.1. Processes Focused on in This Research

cooperation in terms of its approach and targets; (iii) what is the process of 'translative adaptation' in developing countries like and what factors encourage or discourage this process; and (iv) how can development cooperation promote translative adaptation and what changes are required in its approach to make this happen.

To achieve the above research objectives, we adopted qualitative research as our main research strategy since this approach allows researchers to conduct an in-depth analysis of the perceptions of key actors. We also used multiple case studies as the research method since they help us develop a comprehensive picture of the causal process surrounding a particular phenomenon by taking into account information gained from many levels (de Vaus 2001). As Figure 1.1 shows, the five case studies described in this volume focus on the following four processes in TVET that government and TVET institutions in developing countries often struggle to establish and improve. These include: (i) employer engagement; (ii) skill evaluation; (iii) teacher capacity development; and (iv) the development of workable coordination mechanisms among key actors, including TVET institutions, employers, and national and local governments.

The case studies are the projects or programs supported by Japanese development or economic cooperation agencies—such as the Japan International Cooperation Agency (JICA), the Japan External Trade Organization (JETRO), and the Association for Overseas Technical Cooperation and Sustainable Partnerships (AOTS)—in three Southeast Asian countries that have been receiving Japanese development cooperation over the long-term. The counterparts of these projects or programs in recipient countries also have experience in interacting with other donors through development cooperation or other activities, which enable us to gain a comparative perspective of Japanese cooperation for TVET and other donor-supported activities. The five case studies cover various fields such as: (i) TVET programs for youth after general education (Initial vocational education and training, IVET); and (ii) TVET programs related to the machine industry, including automotive, motorcycle, electric and electrical, and machine tools, which are often regarded as drivers of industrialization and upskilling (ILO and ADB 2014; ILO 2020).

3. Structure of the Volume

Following this introductory chapter, the volume begins with an overview of the theories concerning current development cooperation for skills formation, presents the results of the case studies, and finally draws implications for future industrial development cooperation for skill development. More specifically, Chapter 2 explains what theories underlie the current development cooperation for skill development and sets up a common analytical framework across the five case studies.

The remaining chapters present the case studies listed in Table 1.1. Chapter 3 examines the case of the industry/employer engagement system at Hanoi University of Industry (HaUI) in Vietnam. HaUI received technical guidance from Japanese experts based on a training process management model applied to TVET institutions in Japan, in particular in the Project for Human Resource Development of Technicians at the Hanoi University of Industry (HaUI; the HaUI-JICA Project). Chapter 4 focuses on the development of the TVET teacher training programs at the Center for Instructor and Advanced Skill Training (CIAST) in Malaysia. Taking advantage of long-term Japanese development cooperation, CIAST has not only become a core of the Malaysian TVET teacher training system but has also been acting as a regional training hub. Chapter 5 examines the development of the national skills evaluation system in Vietnam,

Table 1.1. Processes and Country of Selected Cases

Process	Country		
	Malaysia	Thailand	Vietnam
Industry Engagement			HaUI-JICA Project
Curriculum and Teaching Method Improvement			
Teacher Training	CIAST Project		
Skills Evaluation		AHRDP	HaUI-JICA Project/SESPP
Local Industry Engaement and 5S and safety training			Dong Nai Manufacturing HRD Project

Source: Elaborated by the authors.

which incorporates elements of both Japanese and Western systems. The Vietnamese government has been developing national skill tests with technical assistance provided under the HaUI-JICA Project and the Skill Evaluation System Promotion Program (SESPP) supported by the Ministry of Health, Labour and Welfare of Japan. Chapter 6 explores the skill evaluation sub-program of the Automotive Human Resource Development Project (AHRDP) in Thailand. This is a unique case which attracted strong commitment from large Japanese multinational corporations (MNCs) as part of the framework of Japan-Thailand Economic Partnership Agreement (JTEPA). It is also comparable with the case in Vietnam presented in Chapter 5. Chapter 7 explores a local initiative to develop manufacturing (called *Monozukuri* in Japanese) human resources through multi-stakeholder coordination in the south of Vietnam. This is a case of inter-regional cooperation between Dong Nai Province of Vietnam and the Kansai Region of Japan, supported by the Japanese government (Ministry of Economy, Trade and Industry) and development cooperation agencies.

Based on the results of the above case studies, Chapter 8 discusses cross-cutting themes, including the factors that promote translative adaptation and the potential impacts of digital technologies on development cooperation for upskilling, and provides our conclusions.

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