

Translative Adaptation and Development Cooperation for Skill Development

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1. Introduction

As we discussed in the previous chapter, a critical aspect of learning is that it takes place locally and must adapt to local differences in culture and economic practice (Stiglitz and Greenwald 2014). This means that one country's best practices in education and training cannot be simply transferred to another country, either between developed countries or from advanced to less developed countries, because of differences in economic, social, cultural, and institutional contexts (Turbin 2001). In other words, 'translative adaptation' is required (Maegawa 1998; Ohno 1998).

This chapter examines the concept and processes of translative adaptation and its relationships with cooperation for skill development. To this end, the next section discusses the trends in skill policies and issues associated with policy borrowing, taking an employer-led skill formation system as an example. Following this foundation, Section 3 explores the concept of translative adaptation as alternative method of policy making, and Section 4 examines the relationship between development cooperation and translative adaptation. Section 5 then discusses the role of translative adaptation in the changing world of work, and our conclusions are presented in Section 6.

2. Trends in Skill Policies and Issues Associated with Policy Borrowing

This section provides an overview of skills policy trends, in particular the employer-led skill formation system, and their underlying theories. Then, it discusses potential problems that may be caused when developing countries directly import or borrow the models formulated in developed

countries without adaptation.

2.1. Diffusion of an employer-led skill formation system

The current practice of development cooperation for skill development and TVET shows that the ‘employer-led skill formation system’ has been widely promoted in developing countries. This is in part because foreign donors have encouraged recipient countries to adopt it as ‘international best practice’ in their role as the ‘transfer brokers’ of policies (Stone 2001). This system has been developed mainly based on the experiences of the ‘liberal-market economies’ (Chakroun 2010; Wheelahan 2017)¹ which assumes a preponderance of employer-led training initiatives in TVET (Ashton 2004). In this system, in-company or company-financed training is regarded as a more effective means for upskilling than government intervention in the process of securing a supply of skilled labor. Even though public TVET programs are accepted as a secondary measure to the employer initiatives priority, they have to be improved in accordance with employer skill needs (Booth and Snower 1996; Almeida and Cho 2012).

The following standard policy measures are often suggested when operationalizing an employer-led skill formation system: (i) development of a common framework of TVET, including the national qualification framework (NQF) and national occupational skill standards based on the competency-based training (CBT) system, which are presumed to precisely reflect employer skill needs; (ii) improvement of the labor market information system; (iii) the establishment of an employer-led coordination function, such as a Sector Skills Council (SSC) as in the United Kingdom (UK) or Industry Skill Council (ISC) in Australia; (iv) the development of a quality assurance system; and (v) the promotion

¹ Hall and Soskice (2001) divided the types of institutions into two groups in their varieties of capitalism (VoC) approach: ‘liberal market economies’ include Australia, Canada, Ireland, New Zealand, the UK, and the United States, and ‘coordinated market economies’ include Austria, Belgium, Denmark, Finland, Iceland, Germany, Japan, the Netherlands, Norway, Sweden, and Switzerland. This distinction was made in reference to the way in which firms resolve coordination problems regarding industrial relations, vocational training and education, corporate governance, inter-firm relations, and employee capacity development. However, Witt and Redding (2013) pointed out that the typologies suggested by the VoC approach cannot properly categorize Asian countries because the Asian business system varies considerably from European and American ones.

of autonomy along with outcome-oriented budgetary support for TVET institutions (Eddington and Toner 2012; ILO 2008; Lloyd 2008). These measures have become the orthodoxy of TVET policies in international development. McGrath (2012) has called them a ‘vocational education and training (VET) toolkit.’

Employer-led skill formation systems and their supportive policy measures are underpinned by a theoretical view called the ‘supply-side approach’ (Froy 2013; Lloyd 2008). This approach ascribes problems related to skill formation, such as skill mismatch, to the supply-side, including governments, education and training institutions, and individuals (Almeida, Behrman, and Robalino 2012; Booth and Snower 1996). This argument is based on a key assumption of human capital theory that firms and individuals are forward-looking and make rational decisions to maximize their benefits in a perfectly competitive market (Becker 1993). They should be willing to hire skilled workers if they are available in the labor market, and invest in upskilling, aiming at higher profits, productivity, and welfare unless there are market failures. Thus, this approach emphasizes that governments should foster the ‘economic relevance’ of TVET programs, which means that students should acquire the skills required by employers, contribute to their productivity improvement, and be pleased to obtain jobs offered by employers (Almeida, Behrman, and Robalino 2012).² The supply-side approach has been penetrating into developing countries, given that several countries across Asia and Africa have been trying to introduce an employer-led skill formation system (Boahin and Hofman 2014; King 2012). This system has been promoted through development cooperation or research projects (ADB 2009; World Bank 2013a).

2.2. Issues and alternative approach to an employer-led skill formation system

Certainly, it is important to pay attention to employer skill needs in

² Carbonnier, Carton, and King (2014, 5) stated that the World Bank and OECD take a ‘instrumental approach’ to education, an approach that pays attention to economic return on investment, and is identical to the supply-side approach. On the other hand, they explained that UNESCO considers education as a human right. ILO is in the middle, due to its tripartite governance structure. However, they also noted that this classification is simplistic, given that there is a diversity of opinions even inside those organization.

formulating TVET programs. But there is a need to examine whether an employer-led skill formation system, derived from a foreign model based on the liberal-market economy, is immediately transferrable to developing countries. In fact, many of them are struggling to materialize this system by facing common challenges, such as the difficulty in mobilizing the contribution of employers, even though many foreign donors promote this as international best practice (e.g., Boahin and Hofman 2014; Mori 2019).³

The challenges of the employer-led skill formation system are articulated in another theoretical approach to skill formation, namely the ‘demand-side’ approach (Desjardins and Rubenson 2011; Lloyd and Payne 2002). This approach attributes skill problems not only to the supply-side but also the demand side, with a focus on employer demand and skill utilization (Ashton et al. 1999; Brown 1999; Brown, Lauder, and Cheung 2020).

For one thing, this approach points out that firms do not always invest in training and skills in prompt response to technological changes or to opportunities to move up in value chains (Ashton and Green 1996; Payne and Keep 2011). Against the assumption of human capital theory, firms are not always forward-looking with respect to upskilling because of the structural issues deeply ingrained in capitalism today, such as rapid globalization. Cappelli (2012, 86) points out that ‘only theorists believe that individual businesses always do what is in their best interest.’ Thus, firms in developed countries are becoming less motivated to provide internal training (The Economist 2017), in part because rapid globalization has enabled them to source trained human resources from various places (Brown, Lauder, and Ashton 2011). Moreover, fewer firms provide internal training in developing countries (Almeida, Behrman, and Robalino 2012, 112-13). In short, firms are becoming less patient in investing in upskilling.⁴

³ Indeed, there may be a case that employer-led training systems could work in developing countries. For example, Misbah et al. (2019) concluded that the CBT principles are largely applicable to Indonesia. However, this study mostly focused on teacher and student perceptions of the extent to which CBT principles work in Indonesia and did not analyze the outcomes of CBT. The authors mention this as a limitation.

⁴ Froy (2013) stressed that the availability of ‘patient capital’, funds invested for the medium or long term (generally for 5 to 10 years), is required for firms to invest fully in their staff and upgrade their production processes. Firms need long-term investment security.

Another structural problem is that skill demand can be weak even in countries where economies grow and industrialization proceeds. In particular, when firms are entrenched in the free market's bias towards short-term profits, it can be perfectly 'rational' for them to pursue a low-skill strategy that does not require large numbers of skilled workers (Payne and Keep 2011; Ashton and Green 1996). Furthermore, if skill demand is stagnant, employers do not find a benefit in proactively engaging in TVET reform (Payne 2018). Latecomer countries that are attempting industrialization by relying on inflows of foreign direct investment (FDI) often struggle with stagnant skill demand since some multinational corporations (MNCs) keep focusing on lower value-added processes to survive the increasingly intensified competition in global supply chains (Mori 2019).

2.3. Policy borrowing and risk of losing policy learning opportunity

The above-mentioned challenges imply that if an employer-led skill formation system is introduced as a 'quick-fix' solution, there are risks that developing countries may simply borrow the system as normative best practice. Generally, it is hard to transfer one country's best practices in education and training policies or programs to another country, regardless of the stage of economic development that either are in. The existing literature suggests that an employer-led skill formation system does not work perfectly even in developed countries. For example, SSCs in the UK face challenges in engaging many non-committed employers, especially in sectors with high concentrations of SMEs (Payne 2008; Keep 2015). In addition, Payne (2002) has argued that British vocational training programs provide limited training in skills which contribute to long-term career development and social equality since they are tied to employer needs and their competency-based training ideology.⁵ Policymakers in developing countries are not fully aware of the possible consequences of borrowing an employer-led skill formation system.

Importing international best practices as 'quick-fix' solutions may cause more serious problems in developing countries, since they will lose the

⁵ Payne (2002) compared the British English vocational training curricula with Norway's, which he described as being based more on broader purposes such as equality, social justice, democratic participation, and personal development for all.

policy learning opportunities through which they find ways to translate and adapt them to their local contexts (Steiner-Khamsi and Waldow 2012; Phillips and Ochs 2003). The lack of policy-learning processes can be partly attributed to the insufficient self-effort of developing countries; but it may also be attributed to development cooperation if foreign donors force international best practices as a universally applicable model to recipient countries without in-depth analysis of local policy and institutions (Steiner-Khamsi and Waldow 2012). This is so especially when international best practices are offered as a package comprising tightly interconnected elements and governments in developing countries are forced to accept the entire package (Steiner-Khamsi 2014). The import of ‘packaged’ policies sometimes creates local problems instead of solving them (Steiner-Khamsi and Waldow 2012; Chakroun 2010), since they do not always fit with the capacity and resources of recipient governments, their institutional contexts, or their stage of industrialization (Allais 2012; Mori 2019).

An alternative to policy borrowing is the ‘translative adaptation’ of external practices through policy learning (see Ohno 2022, 2024), as will be explained below. Nevertheless, for several reasons, there have only been limited opportunities for developing countries to learn how translative adaptation works. First, few case studies have made a comprehensive analyses of the process of translative adaptation, although some preceding studies have analyzed parts of the process, including how policy borrowing causes problems or how completed systems are disseminated as best practices (Steiner-Khamsi 2014, 162).

Second, few studies have analyzed the processes of skill formation in today’s developing countries. These require profound knowledge of the dynamic or historical development of local skill formation systems in conjunction with economic, social, and institutional development (e.g. Ashton et al. 1999; Thelen 2004). The existing studies focus on developed countries, newly industrialized economies (NIEs) such as Singapore, or large emerging countries such as China and India rather than small-to medium sized developing countries where sufficient information is often not available. It requires considerable time and resources for developing countries to study those cases systematically by themselves and identify lessons applicable to their situation.

Finally, there is no systematic analysis of what sort of development

cooperation projects would help recipient countries promote translative adaptation. It is not easy to produce manuals or standards to promote translative adaptation since the process differs case by case depending on local contexts. This often leads to the conclusion that it is all about the capacity of counterparts and people, but such a simplistic wrap-up will not lead to the reproduction of successes or the avoidance of failures. Therefore, more concrete analyses of translative adaptation and its relationship with development cooperation are required to draw lessons on how to enhance policy learning opportunities for today's developing countries.

3. Translative Adaptation as a Potential Approach to Facilitate Policy Learning

3.1. The concept and processes of translative adaptation

The concept of 'translative adaptation' was originally presented in the anthropological literature in opposition to the 'clash of civilizations' thesis (Maegawa 1998), and means that an item in one culture or system can change its meaning when transplanted to another culture or system. Applying this concept to international development, Ohno (1998, 12) stressed that developing countries need to adjust the models formed in developed countries according to their domestic economic and institutional contexts. Similar discussions can be found in the literature on education and training. For example, in the context of global education reform, Steiner-Khamsi (2014) stated that it is important to 'recontextualize' and 'internalize' (or 'adapt') international best practices according to local situations. In the field of skill development, the literature on the demand-side approach has emphasized the necessity for policy learning, while criticizing simple policy borrowing (Ashton and Green 1996; Allais 2010). This volume uses the term 'translative adaptation,' aiming to stress the importance of 'translation' and to keep the term consistent with previous usage.

Despite differences in wording, the above adaptation-related concepts share some common elements. First, adaptation requires strong policy ownership. This means that policymakers or other counterparts should not passively follow the advice of foreign donors but proactively select

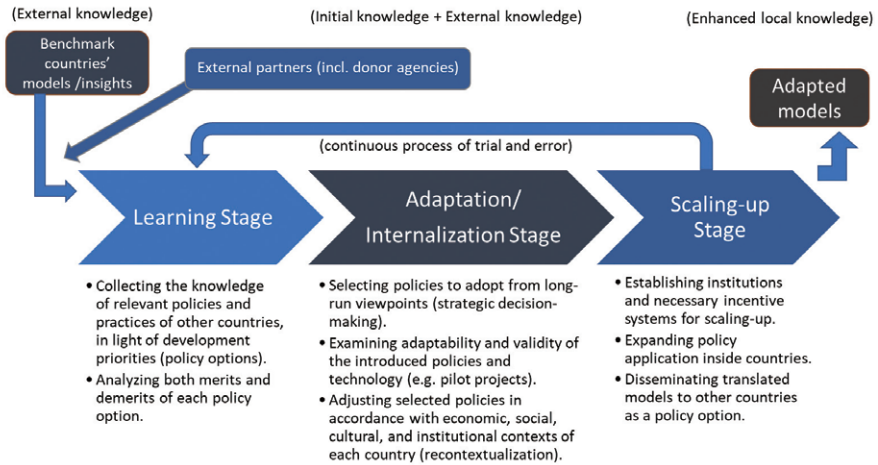
suitable options in the light of their own strategies (Ohno 2014).⁶ Second, they should make policy selections based on an in-depth understanding of the broader local contexts related to economic, social, and institutional development. This is the so-called local adaptation of international best practices or norms (Steiner-Khamsi 2014). For this to occur, it is necessary to decompose ‘international best practices,’ which are often sold as a packaged product. Third, solutions should differ by stage of economic and industrial development (Ishikawa 1998). The final element is dynamic capacity development (Ohno 2013). Should these changes be achieved, policymakers in developing countries would be able to refine these models over time by developing their capacities to do so.

Translative adaptation is also related to ‘sustainability,’ which is one of the five main evaluation criteria used by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD). Sustainability in the evaluation of development projects is defined as ‘the extent to which the net benefits of the intervention continue, or are likely to continue’ (OECD 2019, 12). While the translative adaptation of foreign models of development is presumed to provide long-term benefit for the recipient countries of ODA, this volume focuses more on the processes that transform foreign models rather than on the benefits of intervention.

3.2. Presumed processes

In this volume, we posit that translative adaptation proceeds in three stages: (i) learning; (ii) adaptation or internalization; and (iii) scaling-up or dissemination (see Figure 2.1). This flow was developed with reference to the technology transfer steps of a productivity improvement project summarized by Kikuchi (2013), which consisted of learning, improvement, and extension. It is also similar to the three-step model presented by Steiner-Khamsi (2014), which consists of externalization, recontextualization, and internalization. However, our model attempts to explain the lifecycle of the evolution of international best practice by focusing on the viewpoint of the national (local) counterparts of development cooperation projects. Therefore, the subject of each step is the counterpart’s response: how they learn, adapt, and scale up.

⁶ See Ohno (2014) for a case study on how the Ethiopian Government has been formulating industrial strategies.



Source: Ohno (2024, 10).

Figure 2.1. Three-stage Process of Local Learning and Translative Adaptation (an example of policy learning by government)

At the *learning* stage, the national counterparts in development cooperation projects, such as policymakers and the staff of TVET institutions, obtain opportunities to learn various countries' policies and practices, including their merits and demerits (Ohno 2016; Chakroun 2010). Learners should, however, properly understand that international best practices do not always work even in their country of origin. They have to know that, when they reach later adaptors, international best practices are 'at the same time everybody's and nobody's reforms' (Steiner-Khamsi 2006, 666).

At the *adaptation* stage, counterparts make strategic decisions when selecting suitable policies with strong policy ownership, driven by a desire for national pride (Ohno 2014). Then, they have to recontextualize other countries models in accordance with local economic, social, cultural, and institutional contexts and amalgamate them with existing policies and institutions (Steiner-Khamsi 2014; Stone 2001). Typically, they identify appropriate policies or systems based on the results of pilot projects and activities (Kikuchi 2013).

At the *scaling-up* stage, adapted policies or systems are disseminated to other regions inside a country or even to other countries. For this purpose, policies or systems should be logically and theoretically refined so that a broad range of people can understand their structure, implementation

processes, effects, shortcomings, and a range of other general and context-specific factors. In other words, ‘tacit’ knowledge should gradually be externalized as ‘explicit’ knowledge in this process (Nonaka and Hirose-Nishihara 2018). This scaling-up stage can also be understood as the learning stage for a broader range of people who have received externalized policies or systems.

3.3. *The roles of key actors*

Key actors in translative adaptation are the ‘transfer brokers’ or ‘agents’ who bring policies and systems from other countries to developing countries and their recipients (Stone 2001; Maegawa 2004). Regarding development cooperation projects, the former are usually foreign donors, including the staff of development cooperation agencies and their experts (Steiner-Khamsi and Waldow 2012). Furthermore, foreign donors can play a role in facilitating all three processes—learning, adaptation, and scaling-up, depending on their mandates and strategies.

The latter are the national counterparts of development cooperation projects, such as the policymakers or the senior managers and staff of TVET institutions in the field of skill development. They are the ones who translate and adapt foreign policies or systems, although foreign donors may help their counterparts translate and adapt their policies or systems. However, it is virtually impossible for foreign experts to provide fully adaptable models for counterparts because translative adaptation requires a profound understanding of the local socio-economy and institutions. At most what they can do is to adjust the models based on their own understanding of local contexts. In this sense, frequent clash of opinions between national counterparts and foreign donors is inevitable, or even healthy, in achieving a real consensus between them.

To develop realistic and effective policies, national counterparts have to involve various local stakeholders in the adaptation process. In the case of skill development, these stakeholders consist of employers and intermediary organizations, such as chambers of industry and commerce on the employer side, trade unions on the employee side, and student or youth unions. Whether national counterparts can manage to find a way to adapt foreign models depends on cooperation from these stakeholders.

4. Development Cooperation and Translative Adaptation

Foreign donors can be the catalyst of translative adaptation in developing countries, as ‘transfer brokers’ or ‘agents’ who bring external knowledge and technologies through policy advice, development cooperation projects, and so on. This section explores the relationships between development cooperation projects and translative adaptation, in light of two perspectives related to delivery mode. In doing so, we pay special attention to the targeted objectives and the mode of aid delivery, bearing in mind the characteristics of Japanese industrial development cooperation.⁷

4.1. *Framework vs. ingredients approach: the targeted objectives of development cooperation*

The first perspective is related to the objectives of development cooperation. Yanagihara (1998) makes an interesting comparison between the Japanese and the Western approaches to economic development, which is also relevant to development cooperation. There are two contrasting ways of understanding and analyzing economic development. One focuses on the ‘framework’ of an economic system and its management; and the other focuses on an economy as the sum total of its ‘ingredients’ or component parts. The ‘framework’ represents the rules of the game according to which economic agents make decisions and take action in a given economy, while ‘ingredients’ refers to tangible organizational units such as firms, official bureaus, and industrial projects, human capital, and infrastructure. As a general tendency, the ‘framework’ approach is prevalent in Western (especially Anglo-Saxon) donors, while the ‘ingredients’ approach is more common in Japan and East Asia (Ohno 2013, 146).

It is possible to draw an analogy between the two contrasting approaches and the debates over skill policies. Regarding skill development, examples of ‘the framework’ are NQF, CBT, SSC, and national apprenticeship schemes because these are the main components of an employer-led skill formation system. On the other hand, the ‘ingredients’ of skill development comprise TVET institutions, teachers, students, employers, employees, and intermediary organizations. These stakeholders are the actors responsible for materializing policies and standards for upskilling.

⁷ See also Ohno (2022) for discussions on the ‘framework vs. ingredients approach’ and the features of Japanese industrial development cooperation.

In addition, ingredients include the infrastructure of TVET institutions, which cover both hard infrastructure, such as training equipment and facilities, and soft infrastructure such as curricula, teaching materials, teaching methods, and management methods. The management methods contain ways to involve employers and other stakeholders in the various processes of education and training.

Frameworks and ingredients are not mutually exclusive; they are complementary (Ohno 2013). While framework policies and standards do not necessarily lead to the improvement of ‘ingredients’ for upskilling, such as curricula, teaching materials, and teaching methods (Allais 2012; Chakroun 2010), even good policies and standards do not work if there are no key actors capable of utilizing them. Likewise, the ‘ingredients’ of national and local policies are required to institutionalize or disseminate local good practices made by capable TVET institutions nationwide. In short, frameworks and ingredients are interdependent.

4.2. Normative vs. hands-on approach: delivery of development cooperation

Another perspective is related to the mode of delivery of development cooperation. This can be categorized in two ways. The first approach, named the normative approach in this volume, focuses on disseminating international best practices formed in developed countries as norms (Steiner-Khamsi 2014). Furthermore, this approach sets international best practices as a benchmark and shows the position of each country by using indices.⁸

An advantage of the normative approach is the provision of explicit knowledge. Many international best practices of skills policies are based on a clear, though sometime simplistic, concept that market-based reform is efficient (Burchill 2001; Williams 2003). In addition, they often look systematic since they are packaged as a coherent product with interconnected elements (Steiner-Khamsi 2014). Therefore, this may make policymakers in developing countries feel that it is easy to learn the structure of these practices and the corresponding policy measures.

⁸ See the human capital index of the World Economic Forum’s *Global Competitive Reports* (World Economic Forum 2019), and the World Bank’s *Systems Approach for Better Education Result* (SABER) and *Human Capital Index* (World Bank 2013b, 2018).

Furthermore, it is less time-consuming to buy a packaged solution than to develop your own system by studying existing practices, selecting applicable components in local contexts, and integrating all components. Finally, a packaged policy can be a tool to promote regional integration, such as common qualification frameworks and subsequent skill standards for the promotion of regional labor mobility.

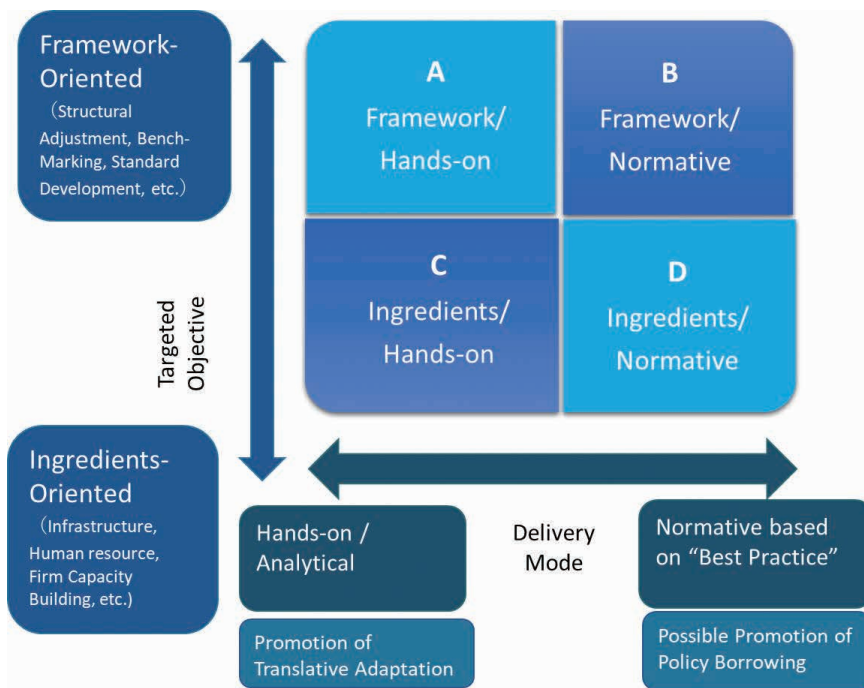
In contrast, the second approach concentrates on finding field-oriented solutions based on the in-depth analysis of local economy, society, and institutions (Ohno 2013; Steiner-Khamsi 2014). Accordingly, solutions will vary depending on local situations. This approach is defined as a ‘hands-on’ or ‘analytical’ approach in this volume.

A major merit of this approach is flexibility. In general, counterparts are urged to develop their own policies or systems with in-depth consideration of local characteristics. In other words, this approach focuses on the processes of counterpart capacity development through policy learning (Ohno 2013). Other countries’ practices are presented as a reference point, but not as a packaged policy. Furthermore, this approach helps counterparts set up feasible targets depending on their development stage rather than urging them to immediately catch up with benchmarked best practice (Ishikawa 1998). It also concentrates on providing national counterparts with various concrete measures to achieve feasible objectives.

4.3. Development cooperation for translative adaptation

The previous literature suggests that there is an apparent association between types of targeted objectives and development cooperation approaches (Ohno 2013; Yanagihara 1998). While projects targeting the frameworks tend to be implemented using the normative approach (see Box B of Figure 2.2), those targeting ingredients are often carried out in a hands-on way (see Box C of Figure 2.2).

There may be a relational link between targeted objective and development cooperation approaches, but this should not be absolute. For example, a development cooperation project targeting framework, such as skills policies, can be carried out using the hands-on approach, based on an in-depth analysis of local situations. If development cooperation targeting ingredients, such as the capacity development of a TVET institution,



Source: Drafted by the authors.

Figure 2.2. The Targeted Objective and Delivery Mode

encourages counterparts to adopt a curriculum imported from a foreign country without customization, it is taking the normative approach.

The above argument implies that the development cooperation approach type is likely to have stronger association with the probability of translative adaptation than the targeted objectives type. In implementing projects either for framework or ingredients, counterparts are likely to be encouraged to carry out translative adaptation in projects taking the hands-on approach that pay close attention to local characteristics. In contrast, the normative approach contains a higher risk in promoting policy borrowing because it tends to offer a tightly knitted packaged policy as a normative model. Some developing countries are not able to refuse proposals to use the normative method from donors, regarding this as a 'condition' for soft loans or technical assistance (Steiner-Khamsi and Waldow 2012).

Even though a hands-on approach may promote translative adaptation,

it also has some constraints. Technical guidance in this approach largely depends on tacit knowledge. It takes more time for counterparts to understand and internalize tacit knowledge than explicit knowledge. This approach demands a high-level of patience and persistence from counterparts because they need to find answers by themselves in close cooperation with foreign experts. Patience is required for foreign donors as well. If they demand immediate results from projects, they will not be able to adapt this approach successfully. Another prerequisite is strong policy ownership. If national counterparts are not willing to go through an intensive policy learning processes for self-discovery, this approach does not work.

In short, both the normative and hands-on approaches have some merits and demerits. Thus, they are not mutually exclusive but can be complementary in relation to upskilling. In the case that there are some no context-specific issues to be fixed very quickly, a normative approach can even be more effective than a hands-on approach, at least in the short term. The same can be said for the case where there is no choice but to develop common regional frameworks or standards. On the other hand, when it is better to develop systems of practices that work in the local context even by taking some time, a hands-on approach is preferred since it is likely to facilitate translative adaptation.

5. Translative Adaptation in the Changing World of Work

5.1. *Great uncertainty*

In the future, the world of work is presumed to face an age of radical change brought on by digital technology development. A number of reports and articles have discussed how the development of digital technologies, including automation, artificial intelligence (AI), and the Internet of Things (IoT), will affect labor markets. Most famously, Frey and Osborne (2017) have estimated that 47 per cent of the total US job market has a high risk of being automated in one or two decades. Some researchers have predicted that automation has the potential to reduce employment, in particular at the intermediate occupation level, and cause job polarization (Goos, Manning, and Salomons 2009).

However, it is still not easy to find research that has examined the realities of how the development of digital technologies are reshaping occupations and skill demand within the work place (Brown and Souto-Otero 2020).

Several studies have indicated employer needs for digital skills, but these skills are not considerably different from the ones that are already required (e.g., Burning Glass Technologies 2019; Kispeter 2018).⁹ In short, digital technology development may change an employer's skill needs and ways of education and training drastically, but it is still uncertain how and when this change will happen.

This uncertainty was amplified by the recent global pandemic (COVID-19) that forced many employers to temporarily shut down their businesses worldwide. When they resume production, MNCs may have accelerated automation and remote-work, as expected in some articles (The Economist 2020). On the other hand, it is likely that the majority of SMEs are still hesitant to adopt digital technologies and promote remote-work, due to lack of financial and human resources as well as the characteristics of their business that require their workers to come to production sites. It is likely that digital transformation is going on, but nobody really knows how fast it is changing associated skill requirements.

5.2. Different speeds and ways of change

Digital technology development may change the methods of skill acquisition, but this will not happen uniformly across regions and countries. In particular, changes will happen at different speeds and in different ways between developed and developing countries.

In this sense, most extant studies provide only superficial analyses of the impact of digital technology in developing countries. While they have revealed the macro view on the 'future of work' (e.g., World Bank 2019), few of them have provided in-depth and sectoral analyses of how rapidly or incrementally digital technologies are diffusing in developing countries, and how they affect skill formation. There are also several studies that have focused on large developing economies such as China (Bughin et al. 2017).¹⁰ However, few studies have examined the situation

⁹ These studies often report on the need for technical skills and knowledge in using existing technologies and software such as AutoCAD for computer-assisted designing and Microsoft Office, or the problem-solving skills whose importance has been stressed on many other occasions.

¹⁰ According to Bughin et al. (2019, 7), China accounted for 23% (or 42 companies) of the world's 185 'unicorns;' private start-ups with a value of at least USD 1 billion in February 2017.

with digital technology development and its impact on skill formation in medium-sized developing countries, whose contexts may be different from the large ones. There have been some attempts to forecast the risks of job losses due to automation (e.g., Chang and Huynh 2016), but again these have not provided a comprehensive overview of the current situation of digital technology development and its impact on skills.

Existing research often concludes that the supply-side, including policy makers and educators, should strengthen cooperation with employers to identify changing skill needs (World Bank 2019). However, few employers may require high skilled workers in late-comer countries, in particular in those smaller countries which have recently joined global value chains and do not have a sufficiently large domestic market to encourage firms to invest in cutting-edge technologies (Mori 2019). Furthermore, employers cannot always identify their precise skill requirements since many of them struggle to identify internal skill needs, in particular their future needs.

This indicates challenges for the governments of emerging countries when they are formulating realistic skill formation strategies in the age of digital technology. Governments in developing countries have been attempting to develop policies to adopt the new era. For example, many governments in Southeast Asia have issued various industrial policies related to digital technology development (World Bank 2019; ILO 2019). However, it remains difficult for the governments of the late comers to develop concrete and feasible policies. For example, the Government of Vietnam has not yet been able to indicate concrete steps for developing a digital economy. This is in part because of the lack of ministerial coordination (World Bank 2019), but there is a more fundamental challenge. The government has not understood how the country is and will be affected by digital technology and to what extent current debates on its development can be applied.

5.3. Translative adaptation in the future

It is thus hard to clarify to what direction the world of work will go and how skill needs will change. To cope with this great uncertainty, skill formation systems need to be flexibly transformed, taking into account local situations as well as global trends. This means that translative adaptation will be even more important in the future since policies simply borrowed from other countries may quickly become obsolete.

However, the processes of translative adaptation may need to be adjusted. The rapidly changing world of work may not allow developing countries to take much time to adapt foreign models to local circumstances. Therefore, it is necessary to find a way to implement translative adaptation processes more quickly. For example, the basic steps of adaptation, which consist of learning, adaptation, and scaling-up, can and should be run simultaneously.

Accordingly, the hands-on approach, which is anticipated to support translative adaptation, should be improved as well.¹¹ A hybrid of hands-on and normative approaches may be required in the future, as it will be necessary to externalize more parts of tacit knowledge, on which a hands-on approach relies, as explicit knowledge. Furthermore, more good practices for policy learning may come from developing countries than from developed countries in the future. This implies that development cooperation methods will be more like knowledge co-creation partnerships rather than requiring the transfer of technology from developed to developing countries (Ohno 2016; Homma 2024, 2022). This is because many of the issues to be tackled are unprecedented even for developed countries.

6. Conclusions

There is no easy way to achieve upskilling. Borrowing the employer-led skill formation system, developed in liberal market economies, does not always help developing countries to upskill (Wheelahlan 2017). Developing countries should identify a skill formation model which fits their social, economic, and institutional contexts. Learning about alternative skills policies is useful only if developing countries internalize these as their own models with a clear and coherent strategy and strong ownership (Phillips and Ochs 2003; Ohno 2014). In short, translative adaptation of foreign models is required, and is even more important in times of great uncertainty due to digital technology development and global pandemics such as COVID-19.

This chapter has examined translative adaptation processes and their

¹¹ See Homma (2022) for discussion on the new industrial landscape and its implications for Japanese industrial development cooperation. He suggests that Japan's industrial policy support should be further enhanced, with greater attention to co-learning, co-solving, facilitation, and experience accumulation.

association with development cooperation. Translative adaptation is posited to consist of learning, adaptation, and scaling-up processes. Development cooperation projects provided in a hands-on approach based on in-depth analysis of local characteristics are more likely to promote translative adaptation than those implemented by the normative approach that aim to promote international best practice.

However, there are some remaining issues in applying the translative adaptation concept to skill development that should be discussed. First, a three-step process of translative adaptation is presented in this study but it is based on a limited number of case studies in the field of general education reform and firm capacity development (e.g., Kikuchi 2013; Steiner-Khamsi 2006). It is necessary to examine whether the same processes are also applicable for skill development or TVET projects. Furthermore, as digital technology development is said to affect skill requirements, we need to consider how the processes of translative adaptation should be modified in the changing world of work.

Second, it is uncertain what sort of internal and external factors affect each step in the translative adaptation process. Certainly, consensus and trust between national counterparts and foreign donors are essential, but the processes of consensus and trust building are often not deeply analyzed. It is hard to believe that there is no conflict among them even in successful cases, in particular if national counterparts have strong ownership. Thus, it would be useful to understand how the participants usually reach compromises.

Third, although translative adaptation is ideal, what happens if national counterparts lack the capacity and ownership to go through the process? In this case, it can be argued that simply borrowing external models is better than nothing. Thus, it is useful to understand projects that have encountered challenges in encouraging national counterparts to carry out translative adaptation.

Finally, in relation to the above question, the complementarity of normative and hands-on approaches should be explored further in the field of skill development. It is important to understand how they can be connected or in which situations they may be mutually exclusive, based on analyses of actual cases.

The rest of this volume addresses the above issues based on findings from field studies conducted in Southeast Asian countries.

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