

The Dynamic Development Process of Industry Engagement in TVET: The Case of Hanoi University of Industry (HaUI)

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1. Introduction

Strengthening industry engagement is a common challenge for the governments and technical and vocational education and training (TVET) institutions in developing countries across Asia and Africa (e.g. Allais 2012; Boahin and Hofman 2014; Mori 2019). The employer-led skill formation system, mostly formed in developed countries, includes measures such as competency-based training (CBT) systems and Sector Skills Councils (SSCs), and is promoted as international best practice by those countries. To increase industry engagement, many developing countries are attempting to adopt these measures (Eddington and Toner 2012; ILO 2008; Lloyd 2008) (see Chapter 2). For instance, to make their curricula more relevant to employer skill needs, some TVET institutions are trying to invite employers onto steering or advisory committees to obtain their input regarding appropriate curricula, following the curriculum development methods commonly utilized in the CBT system (Almeida and Robalino 2012).

However, many developing countries, including Vietnam, are still struggling to develop effective systems for industry engagement in TVET (e.g. Allais 2012; Boahin and Hofman 2014). Some TVET institutions have invited selected firms to curriculum improvement meetings to obtain more information about their skill needs, but these activities often fail to deliver tangible results (e.g. Mori 2019). This may of course mean that they need to improve their ways of approaching firms, but there are more fundamental issues with directly applying the standard measures of the employer-led skill formation system to developing countries. First, the standard measures of the employer-led skill formation system often address the so-called ‘framework’ of industry engagement in TVET (Ohno 2013; Yanagihara 1998). However, to make this work and deliver

the results required, it is necessary to assemble all the ingredients for the framework, for example, the capacity development of TVET institutions for industry engagement. Second, it is hard for developing countries to reach the level of international best practices, which were usually formed in developed countries, in a single step. They have to find out a way to achieve this goal step by step, implementing solutions according to their particular stage of development (Ishikawa 1998). Finally, international best practices do not necessarily work in all countries (Steiner-Khamsi and Waldow 2012) since skill formation models can differ according to each country's historical and institutional background (Ashton and Green 1996; Bosch and Charest 2008). Although other countries' practices can be a useful reference for policy learning, eventually each country needs to design an industry engagement system that is workable in its own economic, social, and institutional contexts.

In other words, developing countries need to give due attention to the process of 'translative adaptation' of international best practices (Maegawa 1998, 175; Ohno 1998, 12) when learning about the impact of international best practices, rather than borrow them from developed countries (Chakroun 2010). However, there is little research addressing how developing countries can develop their capacities and adapt foreign systems for industry engagement in TVET to their contexts. Therefore, this chapter aims to examine the process of evolving a system for industry engagement in TVET through learning foreign countries' models by studying the case of the Hanoi University of Industry (HaUI) in Vietnam. This examination is based on the analysis of 25 qualitative interviews with three key sets of actors—HaUI staff, employers, and policymakers.

2. Employer Engagement with TVET in Vietnam

2.1. Weak employer engagement and current policies

In Vietnam, employers often remain passive participants and have limited engagement in establishing and implementing workforce development priorities (World Bank 2012). As a result, the Vietnamese government has started paying closer attention to employer skill needs as well as the importance of industry engagement in TVET (NIVT 2015; Communist Party of Vietnam 2013), in accordance with the recommendations of various international organizations (ADB 2009; World Bank 2013; Kis 2017).

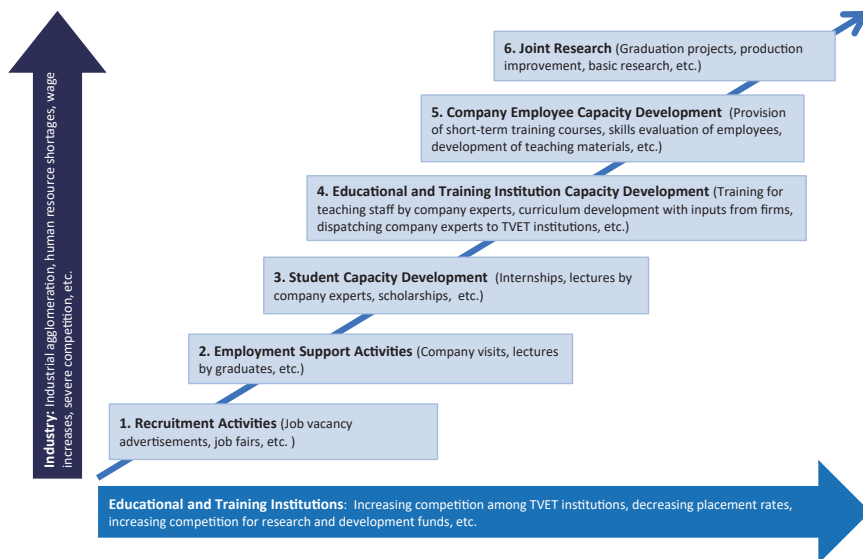
The government is basically adopting the standard policy measures of the employer-led skill formation system or a ‘vocational education and training tool kit’ (McGrath 2012) to strengthen industry engagement in TVET. For one thing, the government has adopted the CBT model, which aims to ensure that TVET programs deliver the skills required by industry through curriculum development, with inputs from employers (Boahin and Hofman 2014). Accordingly, the government continues to develop the National Qualification Framework (NQF), along with competency-based standards, which are important elements in the realisation of CBT (GIZ 2011; Wahba 2013).¹ Furthermore, the government is promoting training and recruitment contracts between firms and TVET institutions, aiming to realise TVET programs that correspond to employer requirements (Government of Vietnam 2012; ADB 2014; Vietnam National Assembly 2014). According to Mori (2019), in doing so policymakers were inspired by the apprenticeship contracts promoted in some developed countries (OECD 2017), as well as the German Dual Training system (Crouch, Finegold, and Sako 1999).

2.2. Challenges for employer engagement

In accordance with government policy, TVET institutions in Vietnam are trying to strengthen partnerships with firms (Mori 2019). Despite various policies aiming to promote industry engagement, policymakers and educators struggle to involve firms in improving education and training programs. Most cooperation activities between TVET institutions and firms tend to be limited to recruitment and unsystematic employment related activities such as job fairs and internships, in which students are sometimes treated as seasonal workers rather than trainees (World Bank 2013; Mori 2019, 2013).

This means that industry engagement in TVET is still in its initial stages in Vietnam. According to JICA (2014), the partnerships between TVET institutions and firms require the following six steps for development: (i) recruitment activities, such as job vacancy advertisements and job fairs; (ii) employment support activities, such as company visits by students and special lectures by graduates working in firms; (iii) student

¹ According to the World Bank (2015), a final NQF proposal was expected to be completed by the end of 2014. However, the author could not find publicly available evidence that it was completed as of August 2022.



Source: Elaborated by the author based on Mori (2019, 228).

Figure 3.1. Basic Steps of Partnership Development between Educational Establishments and Industry

capacity development, such as internships, lectures by company experts, scholarship, and production of simple equipment based on orders from firms; (iv) TVET institution capacity development, such as training for teaching staff by company experts, curriculum development with input from firms, dispatching company experts to TVET institutions, and donation of equipment to TVET institutions; (v) company employee capacity development, such as short-term training courses organised by TVET institutions; and (vi) joint research (see Figure 3.1). In general, firms proceed to the later steps of partnerships only when they become more confident in the capacity and reliability of TVET institutions, including confidentiality management and the quality of their students. In Vietnam, most TVET institutions are at step one or two.

Some policymakers and educators attribute this situation to firms' reluctance to participate in TVET reform and claim that employers are not taking adequate responsibility for upskilling (Mori 2019). However, employers are reluctant to engage in TVET reform mainly because skill demand is not growing as dynamically as the government and some international organizations presume. For example, Mori (2019) found that many firms in the machine manufacturing industry do not require a large

skilled workforce because they are not necessarily trying to climb up value chains or adopt new technologies. When skill demand is weak, many employers do not find a benefit in proactively engaging with education reform. This makes it difficult for TVET institutions to develop enduring partnerships with such firms.

3. JICA Support to Hanoi University of Industry (HaUI)

3.1. Background for the HaUI-JICA Project

To promote industry engagement in TVET reform, the Vietnamese government has been receiving assistance from multilateral donors, as well as bilateral donors such as Germany and Japan, through Official Development Assistance (ODA) projects (GIZ 2017; ILO 2019). As a part of these development cooperation activities, the Japan International Cooperation Agency (JICA) implemented the *Project for Human Resource Development of Technicians* at the Hanoi University of Industry (HaUI) (hereafter called the HaUI-JICA Project) from January 2010 to January 2013.

The HaUI-JICA Project started five years after the completion of the preceding project, the *Project for Strengthening Training Capabilities of Technical Workers at Hanoi Industrial College* (hereafter called the HIC-JICA Project), that was implemented from 2000 to 2005. The HIC-JICA Project aimed to upgrade the technological knowledge and skills of prospective technicians in the fields of machinery processing, electric control, and sheet-metal processing. This project provided not only technical guidance from Japanese experts but also training equipment (Mori, Nguyen, and Pham 2009). Right after project completion the Hanoi Industrial College (HIC) added university courses to its offerings, resulting in a status upgrade. In December 2005, it was renamed Hanoi University of Industry (HaUI).

Building on the above achievement, the HaUI-JICA Project aimed to assist HaUI in developing a management system that would enable it to continuously upgrade its training programs based on industry skill needs. The project focused on three outputs: (i) courses and curriculum based on industry needs by introducing the training process management system, which was based on the Japanese experience in improving TVET (see below); (ii) pilot skill tests; and (iii) an employment support system (Mori et al. 2013).

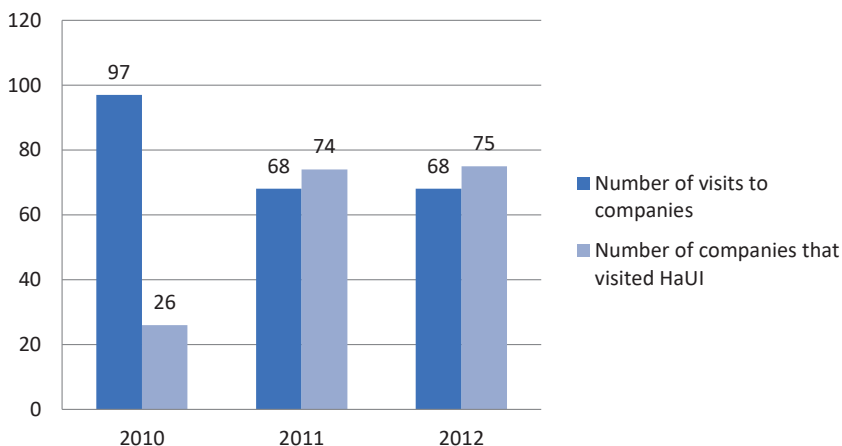
Constant engagement of employers is at the core of the project across the three outputs. To enhance industry engagement in TVET, the HaUI-JICA Project intended to introduce a training process management system, which consists of the PDCA (Plan, Do, Check, Action) cycle of training program development and implementation, based on the Japanese experience of TVET reform in the 2000s (Polytechnic University Capacity Development Research Center 2006). The training process management system consists of seven main steps: (i) determination of industry skills demand; (ii) selection of the training fields; (iii) development of curricula; (iv) preparation for training program delivery; (v) implementation of training programs; (vi) evaluation of training programs; and (vii) formulation and implementation of action plans (see Figure 1.1 of Chapter 1).

With the effort and support provided by the HIC-JICA Project, HaUI had already developed relationships with some firms, which resulted in the offering of internships and production of simple equipment based on manufacturing orders to improve the practical skills of students (Mori et al. 2009). However, those relationships were not organized systematically. Furthermore, HaUI did not have a solid method to identify industry needs for curriculum improvement.

3.2. Enhancement of industry engagement in improvement of education and training

Based on the above situation, the HaUI-JICA Project first encouraged lecturers to visit enterprises, rather than waiting for employers to come to HaUI. In 2010, the project organized an industry needs survey to grasp industry's perception of HaUI's training and the educational program graduates (Mori et al. 2012). Importantly, HaUI lecturers and staff carried out the survey by themselves and did not outsource it to professional research companies. This is because the lecturers and staff can gain more information through face-to-face interviews than by simply reading a survey report, which cannot cover all relevant issues. Including this industry needs survey, HaUI members visited 233 enterprises in total during the project implementation period.

While encouraging HaUI staff and lecturers to go to enterprises, the project also asked enterprises to come to visit HaUI (Mori et al. 2013) to develop mutual understanding between HaUI and firms. Lecturers can



Source: JICA (2014, 19).

Figure 3.2. Visit to and from Companies in 2010-12

learn a lot from on-site advice by enterprise experts. In addition, it was often found that company representatives did not know HaUI's training programs and facilities. During the project implementation period, 175 enterprises visited HaUI. However, as described in Figure 3.2, the number of company visits gradually decreased in the second and third years. This is partially because more companies started visiting HaUI. Thus, HaUI did not need to visit them all the time. This indicates that a two-way relationship between HaUI and industry has gradually developed.

The results of interactions with firms, in particular company visits, helped HaUI go through the full cycle of training process management by developing and implementing short-term courses, based on employer skill needs. For example, HaUI designed and implemented new short-term courses on machinery maintenance in 2012. The project's working group members developed the course outlines and training materials during a series of discussions with the focused company group. The courses attracted 76 participants from 17 enterprises (JICA 2014).

The improvement in cooperation with firms also led to the development of a comprehensive employment support system. It comprises several activities including: (i) internship programs; (ii) company study tours; (iii) lectures by graduates; (iv) job fairs; (v) collection and circulation of job opportunity information; and (vi) career counseling (Inagawa 2013).

To operationalize the employment support system, HaUI established the Employment Support Committee in May 2011, which consists of members from relevant faculties, centers, and departments.

The HaUI-JICA Project also attempted to assist HaUI in developing an institutional mechanism for industry engagement in TVET, based on the tangible results through enhanced industry engagement activities. To maintain project activities and further strengthen industry partnerships, HaUI established an Industry Partnership Board under the Training Department in 2012. HaUI nominated members of this Board from all faculties, centers, and relevant departments, while establishing the office as the secretariat of the Board. The main function of the Board was: (i) to receive inquiries from enterprises and send them to relevant faculties and centers under HaUI; (ii) to follow up on the progress of inquiries and prioritize potential partnerships in cooperation with relevant faculties and centers; and (iii) to lead the improvement of various procedures and schemes related to industry partnerships. In short, the Board was supposed to take over the role of HaUI-JICA Project's office for facilitating partnerships with industry.

After the completion of the HaUI-JICA Project, HaUI established the Center for Enterprise Partnership (CPA) in 2014, which took over the functions of the Industry Partnership Board and the Employment Support Committee.² It also planned and organized the national skill assessment, the second output of the project. The CPA also played an important coordination role in the subsequent JICA project, the Project for Strengthening Training of Trainers (ToT) Functions at Hanoi University of Industry (hereafter called the HaUI-JICA Phase III Project), launched in June 2013. This project aimed to transfer HaUI's knowledge and experience acquired through the previous two projects to other TVET institutions, focusing on the fields of machining, electric control, and electronics (Vu et al. 2017). However, the extent to which CPA continued or transformed the industry engagement activities organized in the HaUI-JICA Project has not been deeply analyzed.

² HaUI set up the Center for Enterprise Partnership and Vocational Skill Assessment on February 14, 2014 and renamed it as the Center for Enterprise Partnership on March 14, 2017 (Center for Enterprise Partnership 2019).

4. Research Method

This research aims to provide a comprehensive picture of recent development in HaUI's industry engagement system and activities by examining the perceptions of three key actors, namely HaUI staff, employers, and policymakers. To achieve the above objective the research adopted a qualitative research method since that allows the researcher to conduct an in-depth analysis of key actor perceptions. It conducted the case study to obtain a comprehensive picture of the causal process surrounding a particular phenomenon by taking into account information gained from many levels (de Vaus 2001). This research specifically focuses on HaUI's engagement with firms in the machine manufacturing industry, which includes the automobile, motorcycle, and electric and electronic sectors, because this industry has a high potential to increase manufacturing value added and requires more skilled workers (ILO and ADB 2014; UNIDO 2013).

The qualitative data was collected through semi-structured face-to-face interviews. During the field research phase in 2019, the author spoke with 25 interviewees including: (i) 5 HaUI staff members, who are mostly management staff; (ii) 17 management staff members from industry, including 9 firms belonging to the machine manufacturing industry, including automotive, motorcycle, electronics, and other machine parts and equipment suppliers and 4 intermediary organizations, such as business associations, a consulting firm, and an industrial zone management company; and (iii) 3 policymakers from a ministry and an agency related to skill and industrial development (see Table 3.1). Most interviews were conducted in the Red River Delta Region surrounding Hanoi, the capital city, where HaUI, its partner companies, and relevant governmental organizations are located. It also collected and analysed administrative records about industry engagement activities obtained from HaUI, but this data was used as supplementary information to reconfirm or reinforce qualitative data without advanced statistical analysis.

All the qualitative interviews were conducted by the author, who used to work for the HaUI-JICA Project as a JICA expert. The rapport developed with HaUI from this previous work enabled the author to collect in-depth data about their perceptions of development and the challenges of HaUI's industry engagement in TVET, which they may have hesitated to provide

Table 3.1. Interviewee Profiles

No	Pseudonym (Organization)	Number of Interviewees	Pseudonym (Interviewee)
1	HaUI*	1	Board Member A
		1	Senior Expert A
		1	Head of Department A
		1	Coordinator A
		1	Vice Dean A
	HaUI	5	
1	Government Agency A	2	Deputy Director A & B
2	Ministry A	1	Deputy Director C
	Polycymaker	3	
1	Japanese Automotive Assembler A	1	Production Director A
2	Japanese Automotive Designing Company A	3	Admin Director A, HR Director A, HR Manager A
3	Japanese Automotive Parts Supplier A	1	Director A
4	Japanese Mold Supplier A	1	Director B
5	Japanese Machinery Parts Supplier A	1	General Manager A
6	Japanese Electronics Assembler A	1	HR Manager B
7	European Electric Parts Supplier A	2	HR Staff A & B
8	Vietnamese Metal Parts Supplier A	2	Director C, Manager A
9	Vietnamese Machining Parts Supplier A	1	Director D
10	Japanese Business Association A	1	Director E
11	Japanese Industrial Zone Management Company A	1	Staff A
12	Japanese Consulting Company A	1	General Manager B
13	Vietnamese Business Association A	1	Director F
	Employer	17	
	Total Number of Interviewees	25	

Note:

*The actual name of organization was shown since it is obvious that this research focuses solely on HaUI.

Source: Elaborated by the author.

to researchers with whom they had never closely worked. Although this relationship could lead to a rich exchange of information, the interviewees might have found it difficult to make critical comments on JICA projects since this could affect the relationship with the author as well as with JICA, which continues to be an important foreign donor for them. Therefore, the author carefully avoided asking questions that would involve evaluating JICA projects and asked them to provide their views on the differences between JICA and other donors' projects.

The interview data was analysed using the 'thematic analysis' method, which is not bound by theory construction and provides flexibility in examining the applicability of existing skill formation theories to currently developing countries (Braun and Clarke 2006; King and Horrocks 2010).

5. Empirical Findings

This section shows how HaUI has developed its industry engagement system and activities and to what extent it has adapted foreign models to the local context. It is based on qualitative interviews conducted in December 2019 with key actors and on administrative records provided by HaUI.

5.1. Progress of HaUI's industry engagement activities

HaUI has maintained some industry engagement activities developed during the HaUI-JICA Project. For example, HaUI succeeded in attracting more than 100 firms to their job fairs in 2019 and about 1,000 students acquired jobs after the event (Steps 1 and 2 of Figure 3.1). This also implies that they have improved their methods for approaching and following up with firms. In addition, HaUI has been attempting to improve the quality of its internship programs (Step 3 of Figure 3.1):

Currently, we have just taken steps to issue a rule to specify the responsibility of teachers during internship periods. According to that rule, during the internship period at businesses, they must be responsible for supervising students when they practice at companies. That is the biggest change. (Senior Expert A, HaUI)

Furthermore, HaUI has been providing an increasing number of short-term training courses customized for client firms and other organizations (Step 5 of Figure 3.1; see Table 3.2).

Table 3.2. HaUI's Short-Term Training Courses (by Type of Client)

Organization	2012	2013	2014	2015	2016	2017	2018	2019	Total
Japanese Firm	6	9	11	14	16	11	12	5	84
Other FDI Firm	0	0	0	0	0	16	13	1	30
Vietnamese Firm	0	0	0	2	0	22	5	7	36
Educational Establishment	0	0	1	3	2	4	1	0	11
Government Agencies	0	0	0	0	0	2	7	0	9
Total	6	9	12	19	18	55	38	13	170

Source: Mori (2024, 194).

In addition to existing partners like Japanese Automotive Parts Supplier A, HaUI has found new clients, such as non-Japanese foreign-invested enterprises (FIEs):

Every year, we still have quite a number of participants from foreign enterprises, and some companies set up annual training schedules with HaUI. For example, [Japanese Automotive Parts Supplier A], every February, we have a training course for their new staff on conventional milling and turning. Or [one American firm], we also give them annual training courses. (Head of Department A, HaUI)³

HaUI has been able to maintain or expand some of its industry engagement activities, in part because they have institutionalized the coordination mechanism by establishing the CPA. HaUI has been strengthening the CPA's capacity by assigning it 12 full-time staff. This shows the strong commitment of HaUI's top management to partnerships with industry:

I think the first difference is that HaUI's leaders understand and recognize the importance of partnerships with enterprises. That is why they established the CPA as a focal point. Since they see the importance of partnership activities, they consider this as one of the key strategies for developing this university now and in the future. That is why they have invested a lot in our center in terms of human resources, equipment, etc. (Senior Expert A, HaUI)

Furthermore, HaUI has strengthened the coordination mechanism between the CPA and faculties, which continue to receive the first contact with firms:

[...] there must be rules and policies to specify our functions and duties, as well as the process for us to coordinate with other departments. Once the Rector has issued these rules and policies, we start carrying out our activities accordingly. (Head of Department A, HaUI)

Each faculty's staff still receive the first contact from firms, but some of

³ The company names are kept anonymous to preserve confidentiality.

them are willing to share the information with the CPA:

Regarding the industry partnership under HaUI, CPA is the focal point. [...] All companies that approach us for internship or recruitment contact us directly. [...] Every year, we send a list of companies who approached us or whom we have contacted to CPA, because they are the focal point. (Vice Dean A, HaUI)

This indicates that some faculties have acknowledged the CPA as an information hub of industry engagement:

[...] we have a unit specializing in summarizing databases to analyze and evaluate activities related to enterprise cooperation. I think this is a very good thing. (Vice Dean A, HaUI)

Institutional capacity development enables HaUI to conduct industry engagement activities in a more systematic way:

[...] as you know, a lot of firms are proactively approaching us through many channels, including CPA, and they directly provide us with advice and help us. So, we can adjust to suit their needs. Previously, the partnership between us was not as systematic. [...] In my opinion, these are practical and specific changes. (Senior Expert A, HaUI)

Some employers provided positive comments about partnerships with HaUI, in particular regarding recruitment activities and internships:

We organize company introduction seminars in some universities, but, considering the number of participating students, from which we may measure their degree of interest in our firm, it seems that HaUI shows the strongest interest in our firm and many students participate in these events. This probably indicates that their management staff are helping us conduct PR for students. (Admin Director A, Japanese Automotive Designing Company A)

The positive evaluation of HaUI by firms is giving it more confidence to

work with firms:

In the past, we did not have very much information on their needs. So, we were passive in this regard. Now we feel more confident, we proactively provide them with information on our training programs so that they can find the programs that fit their needs...This is the experience that we have learned from the JICA project. Now we approach companies in a more systematic manner. (Senior Expert A, HaUI)

Despite the above successes, HaUI still faces some challenges in cooperating with firms. First, it still has difficulty conducting joint research with firms, which would be the final step in industry engagement (see Figure 3.1). Second, some activities related to the capacity development of HaUI (Step 4 of Figure 3.1) piloted during the HaUI-JICA Project have been conducted less often than in the project implementation period (see Table 3.3). For example, HaUI apparently does not continue to visit as many companies as it did during the HaUI-JICA Project, although many companies appear to keep visiting HaUI instead. In addition, HaUI did not organize in-company training programs for their lecturers. It is presumed that HaUI has difficulty negotiating with firms to accept the lectures for training without support from foreign experts, but this may also be in part because some lecturers are not willing to learn in firms:

For example, if we have the project (supported by JICA), and lecturers participate in this kind of training program (in-company training programs) under project activities, it's OK for them, because it brings them a chance to learn, to update their skills and knowledge. [...] Or sometimes lecturers cannot arrange time to participate in training programs. (Coordinator A, HaUI)

In summary, HaUI's activities and its institutional mechanism for industry engagement have been gradually changing since the completion of the HaUI-JICA Project. This incremental transformation of their industry engagement system indicates the possibility that HaUI has been carrying out translative adaptation of foreign models learned through ODA projects.

5.2. Translative adaptation at HaUI

Table 3.3. Status of Employer Engagement Activities at HaUI

Step*	No	Item	Status
1	1	Recruitment Coordination	Maintained
	2	Job Fair	Scaling-up
2	3	Company Study Tour	Maintained
	4	Employment Situation Survey	Maintained
3	5	Internship	Maintained
	6	Sending Univ. Students to Japan	New
4	7	In-Company Training for Lecturers	Discontinued
	8	Company Visit	Declining
	9	Curriculum Improvement	No significant results
5	10	Short-Term Training Courses for Company Employees	Scaling-up
	11	National Skills Tests	Scaling-up
6	12	Joint Research	Not much progress

Note:

* Refer to the steps of partnership described in Figure 3.1.

Source: Mori (2024, 193).

This subsection analyzes to what extent and how HaUI has gone through three stages of translative adaptation—learning, adaptation, and scaling-up (see Chapter 2)—in terms of learning the foreign models of industry engagement. Close attention is paid to two issues: the improvement of training programs based on employer skill needs (Step 5 of Figure 3.1) and the development of the coordination mechanism. The research findings regarding these issues indicate that some changes have occurred at HaUI.

5.2.1. Learning stage

HaUI has learned both Western and Japanese industry engagement systems, which are often part of curriculum development and improvement processes, by taking advantage of ODA projects provided by European countries, Japan, and other Asian countries. Through these ODA projects, HaUI has been actively learning the foreign models with a strong sense of ownership, instead of being a passive learner:

In fact, our school has had access to Japanese, Korean, and German vocational education. All three approaches share the same common core, but each country has some differences. We have to choose the approaches that are the most suitable for us. (Board Member A, HaUI)

In relation to industry engagement for training program improvement,

the first foreign model which HaUI has learned is the Developing a Curriculum (DACUM) method, which originated in Canada and is part of CBT through a German development cooperation project:

[...] that happened a long time ago. [...] For Germany, they approached us through a program for vocational training with the Directorate of Vocational Education and Training (DVET).⁴ And HaUI sent teachers to study the German TVET system, and one of the notable things was the DACUM, which is also a famous method. (Board Member A, HaUI)

The core of DACUM is to identify employer skill needs through elaborate job and task analysis (GIZ 2011). This is a well-structured but also rigid process in the sense that TVET institutions need to invite company experts to carry out this analysis. Another curriculum development and industry engagement model which HaUI studied was the Japanese training process management system (see Section 3.1). While this model also requires input from employers, the method of obtaining their feedback is not as rigid as with DACUM. If it is difficult to invite employers for job and task analysis, TVET institutions can also obtain information by visiting firms and asking questions from various angles, such as about the structure and content of internal training programs:

I think the first thing that we have learned from the JICA project is the way to approach companies proactively to figure out their needs so that we can set up the partnership program between our school and the companies. (Senior Expert A, HaUI)

Comparing the foreign models described above, HaUI selected the Japanese training process management system for its TVET programs at their own initiative:

Actually, as I said earlier, whether it is DACUM, CDIO (Conceive, Design, Implement, Operate) or PDCA, all have the same core. We have learned all three models,

⁴ The DVET was renamed from the General Department of Vocational Training (GDVT) in 2017 (Government of Vietnam 2017).

but regarding vocational education projects, the most successful program in Vietnam up to now is still a JICA project implemented at HaUI. And in our opinion, one of the reasons, though simple, is that the PDCA is the easiest to understand and implement, and thus the most applicable. (Board Member A, HaUI)

It is presumed that HaUI appreciated the Japanese training process management system, which aims to improve curricula based on skills needs information collected in various ways, because it is not easy to gather a sufficient number of company experts for curriculum development meetings in Vietnam, where skill demand lacks dynamism and is weak in some industries:

Currently, businesses are not really interested in supporting us in the training process, like providing us with comments on our training programs and sending technical experts to our university to share their technologies. Only a few FIEs are interested in doing these things, while small and medium enterprises, especially Vietnamese ones, are really slow in this regard. Our current challenge is how to develop relationships with all types of firms. (Head of Department A, HaUI)

The above statement is supported by employer interviews. Most interviewed employers stated that they had never participated in curriculum improvement meetings. Only Director D of Vietnamese Machining Parts Supplier A mentioned that he had participated in one advisory committee meeting on curriculum development.

Another reason to select the Japanese training process management system is the systematic or structured learning process applied in transferring this model, through which HaUI staff improved their capacities:

[...] for Japanese partners, when developing a project, you figure out a specific roadmap: training partners, giving instructions on the working method with clear explanations. The Japanese way is more systematic, and most importantly, Japanese experts help their partners improve their capacity [...] there is always human resource training in Japanese

projects. (Head of Department A, HaUI)

HaUI staff explained that Japanese experts provide more detailed technical guidance in the hands-on approach (Ohno 2013), while European experts present their models and act as facilitators rather than get involved in the details of an implementation process:

Here I would like to compare the level of participation of foreign experts between the two projects. For the JICA project, experts guide us more, train us more. As for [a European] project, we work together as independent partners. They did not guide us much in the process of implementation. [...] They are more like advisors. They share with us the models and the experience that have been applied in their universities. (Head of Department A, HaUI)

The above quote does not indicate which way is better but describes the differences in delivery mode between two kinds of experts.

HaUI regards the Japanese training process management process model as the most feasible option, but this does not mean they will solely depend on it in the long term. They are also attempting to continue learning Western countries' methods related to education and training program development:

At present, HaUI develops (university course) curricula according to the CDIO process of the US. [...] As for the existing curricula, we also revise them according to the CDIO process. (Head of Department A, HaUI)

In short, HaUI is open to various learning models and keeps searching for a method or model suitable for their capacity or situation, each of which could dynamically change. This indicates their strong sense of ownership in learning foreign models, realizing that the choice is with them.

5.2.2. *Adaptation stage*

It is likely that HaUI has been customizing and internalizing the training process management system with their own initiatives, taking into account their capacities and other constraints. For one example, they are

modifying the way they collect skill needs information based on their capacity. During the HaUI-JICA Project, HaUI members visited many firms as reported in Section 3, but it appears that this activity has not been continued in a structured way based on the shared organizational strategy. This could be because some teachers are reluctant to visit firms due to time constraints or because there is not enough transport budget allocated, as already indicated during the HaUI-JICA Project (Mori et al. 2013):

[...] we require them to spend more than 50 per cent of their time on working activities in enterprises. This is in addition to the time for teaching, 50 per cent of their total working hours is reserved for work with enterprises. (However,) Not many lecturers follow this, some are very active, but some hesitate to work with enterprises. Maybe they do not have enough skills or knowledge, or they don't know how to contact enterprises, or they are busy with their teaching activities, etc. (Coordinator A, HaUI)

Therefore, instead of industry needs surveys, some HaUI staff are trying to collect skill needs information through partnership activities with firms, such as internships or networking with alumni:

[...] the curriculum is updated and improved annually. And here are the ways we do the revision. Firstly, through the internship programs at firms. We send our lecturers with students and work with company managers. From that kind of communication, we collect ideas from the companies to improve our curriculum. I think that is the most effective approach (better than organizing job and task analysis workshops in which they will invite experts from companies to join). (Senior Expert A, HaUI)

HaUI staff may understand that this way is not the most ideal one, but they consider it to be the most feasible and realistic solution in light of their capacity and the weak motivation of employers to participate in improving training programs.

Another example of HaUI's adaptation of the training process management system can be seen in its internal coordination mechanism between the

CPA and faculties (see Section 5.1). HaUI top management requested each faculty to appoint a focal point for industry partnership who would work closely with the CPA. This internal coordination mechanism is based on the activities developed during the HaUI-JICA Project, including Industry Partnerships and the Employment Support Committee (Mori et al. 2013). However, HaUI has changed the meeting requirement from a regular to an as-needed basis:

It is true that each faculty has one person responsible for the industry partnership. We do not have any kind of committee. Based on the specific kind of cooperation, our university leaders will assign specific tasks to specific individuals. [...] We do not have regular meetings. When CPA organizes their meetings, if representatives of other departments attend, they can give comments or suggestions. (Vice Dean A, HaUI)

This may be because of constraints to secure time for regular meetings with teaching staff, as noted in the above quote from the interview with Coordinator A of HaUI. In Vietnam, teaching staff often receive salaries based on the hours they teach (Mori et al. 2013, 49). This is different from Japanese TVET institutions, where many teachers work on a full-time basis and participation in some committee meetings is considered part of their duties. Therefore, coordination between the CPA and faculties occurs as-needed rather than being required, but the function of the CPA is highly valued by some faculty/staff, as mentioned above. This indicates that the CPA is managing its relationship with faculty well.

Certainly, HaUI is still in the process in improving the institutional mechanism for industry engagement. They constantly face challenges such as insufficient internal support. In particular, it is not easy to intervene curriculum development, which is designated to faculties:

Sometimes they (faculty members) are busy, sometimes they still do not pay much attention to this activity. In fact, this activity is conducted by each faculty member individually. Each faculty is in charge of their own training curriculum, so they have to develop their own partnership with companies. (Coordinator A, HaUI)

In this sense, HaUI's internal coordination mechanism is still under development. Faculty members will not fully trust the CPA unless it demonstrates its capacity in developing partnerships with firms. Thus, CPA staff keep improving their capacity through continuous self-learning, utilizing not only the materials and knowledge provided by the HaUI-JICA Project but also each partnership case:

[...] we have to learn by ourselves. [...] And we also learned from many of the JICA second phase project documents, where we learned how to work with enterprises, how to develop partnership with them. [...] For other people (who were not trained in the HaUI-JICA Project), we had to learn from each other. And we learned from each case. For example, when the director assigned us some tasks, we could learn through that case. (Coordinator A, HaUI)

The above two examples indicate that HaUI has been attempting to conduct the translative adaptation of the Japanese training process management system by considering their particular constraints and situations. Their initiatives are supported by pragmatism and persistency, including continuous self-learning, in addition to the keen sense of ownership, capacity, and confidence explained in the previous sub-section. Their pragmatism means that in developing countries, implementing solutions according to the development stage is required, rather than trying to implement unfeasible international best practices (Ishikawa 1998). Their persistence with continuous learning implies that their industry engagement system has not yet reached a complete form and is still in a dynamic process of development.

5.2.3. Dissemination stage

Compared with their performance in learning and adaptation, HaUI has made limited progress in disseminating its industry engagement system to other TVET institutions in Vietnam. Their staff is willing to share their experiences and system with other TVET institutions, but at this moment, dissemination only occurs when requested:

During the third phase project, sometimes we conducted seminars with some institutions. They also asked about HaUI's partnership activities. In that case, we were willing

to share with them. For some activities, they can apply exactly the same way as we do, but for some other activities, they have to modify to make them more suitable for the institutions. (Coordinator A, HaUI)

In fact, according to the interview data, HaUI has been disseminating other results of the HaUI-JICA Project, such as the national skill tests on basic machining center operation and 5S, which is based on the Japanese production management system (also see JILPT 2019; Mori 2013).⁵ However, its industry engagement practice has not been systematically disseminated as much as these activities.

One possible explanation for limited dissemination is the difference in capacity between the current HaUI and other TVET institutions. The capacity here includes not only the coordination ability for industry engagement but also technical ability and the hard infrastructure to provide training utilizing adequate training equipment and facilities in accordance with industry skills needs. For example, Coordinator A of HaUI pointed out that industry engagement requires communication ability, which HaUI has developed with technical cooperation from three phases of JICA projects. This is also supported by some employers, who have indicated that they are encouraged to develop relationships with TVET institutions if they provide more frequent feedback about the training programs and results of internships. Furthermore, HaUI has developed physical training infrastructure with substantial assistance from the HIC-JICA Project (Mori et al. 2009). However, many other TVET institutions may not have sufficient capacity to develop partnerships with industries and provide technical training in accordance with their needs. In fact, HaUI did not have it before either and has developed its coordination ability with technical cooperation from three phases of JICA projects. For example, HaUI is helping firms which donate tools and equipment to them to do marketing in their network, replicating the practice piloted during the HaUI-JICA Project (Mori et al. 2013).

Or the sponsor of training equipment, when we receive their training equipment, we not only provide training

⁵ The 5S approach consists of: (i) sorting; (ii) setting in order; (iii) shining; (iv) standardizing; and (v) sustaining (JICA 2018). It is widely recognized by enterprises as a useful means to improve productivity and work environments. See JICA (2014); Mori (2013) for further details of the activities conducted at HaUI.

equipment for students and lecturers but also conduct PR for the equipment for them. For example, when we receive some guests, who are from other companies, we will conduct PR for equipment provided by Company A. And this makes Company A very happy. The skills are very important. (Coordinator A, HaUI)

Another constraint for dissemination is lack of policy support. HaUI has not received substantial support from the government in disseminating the HaUI model, besides making presentations in ad-hoc workshops or seminars:

Strengthening partnerships with companies has been on our development agenda for a long time. We have had many kinds of conferences on this issue. Recently, the Ministry of Education and Training (MOET) also sent us some documents on how to implement such kind of activities. It means that they are quite aware of this partnership issue. But we need more action rather than just policy papers, in terms of, for example, financial support, policy guidance, and the social mobilization. (Head of Department A, HaUI)

All interviewed policymakers recognize HaUI's achievement in industry engagement. However, policymakers in charge of skills policies question the applicability of HaUI's industry engagement system because it is a 'university' which has better capacity and resources than other TVET institutions:

However, one challenge is that HaUI is a 'university,' which does not belong to our system and is supposed to provide academic education. It is a good model, but a question is how to apply... For example, HaUI has an advantage as a university located in Hanoi. They have strong leaders. They provide training related to the industrial sector. How about other TVET institutions? Can they establish CPA? (Deputy Director B, Government Agency A)

It would be true that HaUI has some advantages due to its status as a university which can attract better students in Vietnam, a country where people excessively respect university degrees (Mori 2019; Nguyen and

Truong 2007). Nonetheless, some of their activities, such as improvement of communication with firms or the quality of internship programs should be applicable to other TVET institutions, too. This means that a more fundamental barrier to dissemination of the HaUI model is a lack of recognition by government agencies responsible for TVET. Moreover, due to insufficient inter-ministerial coordination, the dissemination of HaUI's achievements is limited to the network of the ministry which supervises HaUI:

[Ministry A] organizes workshops to present their models. HaUI is focal point for such kind of conference. However, these activities focus only on universities and colleges under. (Deputy Director C, Ministry A)

As a result of low recognition and lack of inter-ministerial coordination, HaUI may have no choice but to disseminate its model on its own. Therefore, the dissemination of their model is sporadic not systematic.

6. Discussion: Enabling Factors for Translative Adaptation

This section discusses what factors have enabled HaUI to conduct translative adaptation of foreign industry engagement models. It also explores the factors that have inhibited this adaptation.

6.1. Enabling factors for learning and adaptation

The research findings suggest three factors which enable learning and adaptation: (i) confidence; (ii) capacity; and (iii) strong ownership. The confidence developed at the learning stage is likely to have helped HaUI adapt the foreign models to their particular situation. In Vietnam, many firms feel reluctant to communicate with lecturers and staff of TVET institutions, not because of their insufficient technical knowledge but because of their unprofessional behavior, represented by appointment requests made at very short notice and inappropriate outfits worn by lecturers and students (JICA 2014). In the past, HaUI was trapped in a vicious cycle in which a lack of organizational strategies, low motivation and knowledge of firms, and inappropriate behaviors caused negative feedback from employers, making staff more hesitant to approach firms (JICA 2014, 18). However, HaUI staff are now becoming more confident to engage with employers. This means that HaUI has successfully

shifted into a virtuous cycle of partnership development, where positive responses from firms further encourages staff to approach other firms for partnership building.

This confidence is founded on their capacity to coordinate with companies and earn their trust through daily operation (see below) and the provision of technical training programs based on industry skills needs. The research findings indicate various elements which have enabled HaUI to get out of the vicious spiral and move to a virtuous one, such as a strong commitment from top management and clear organizational policies to promote partnerships with firms, the development of coordinating institutions, and improvement of the capacity of HaUI staff to proactively approach firms in an appropriate way. All of these are important, but a question for those who try to replicate HaUI's success is where to start. In particular, in reference to the discussion in Chapter 2, is the first step to develop a 'framework,' such as an institutional setting, or 'ingredients,' such as capacity development of key actors?

In the case of HaUI, the capacity and confidence building came before institutional development. It is likely that small successes of daily operation, starting from the acceptance of meeting appointments and positive feedback on internship or short-term training courses, gave them confidence to deal with more firms (also see Chapter 7). In the process of creating a chain of small successes, HaUI has been developing the capacity required for engagement at the same time. Interviewed HaUI staff stated that they were able to achieve these small successes, taking advantage of the hands-on development cooperation provided by JICA, which basically supports 'learning by doing.' At the same time, they have developed the capacity to not only develop good relationships with firms but also carry out continuous and mutual learning by themselves.

The accumulation of these small successes let top management decide that the CPA would be established as a designated unit for industry engagement with substantial investment in terms of personnel. In other words, HaUI needed to accumulate a few small successful cases before setting up an institutional mechanism. In fact, many TVET institutions designate a unit to encourage partnerships with enterprises, but they struggle to develop partnerships (Mori 2019). This means that setting up an institutional mechanism, or 'framework,' does not work only by itself. They need 'ingredients' to build it, which means people who have become

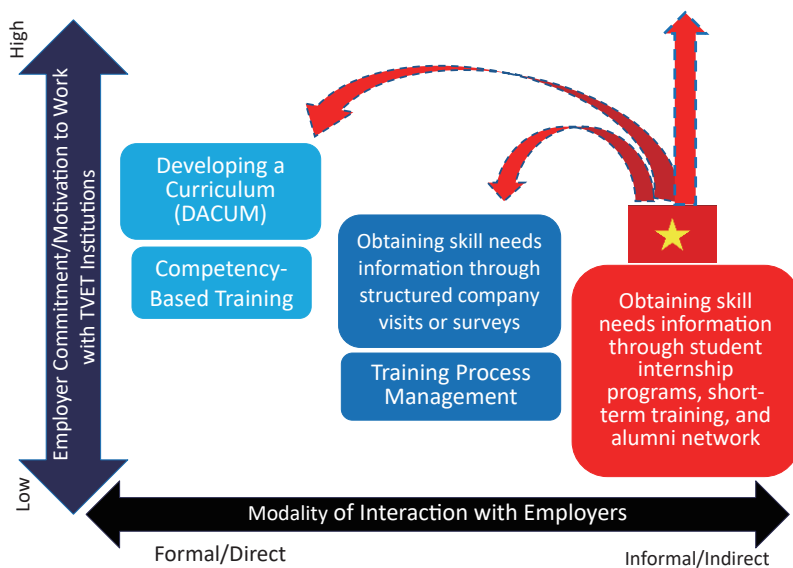
confident in dealing with firms and know how to approach them.

HaUI could not have obtained this confidence and capacity without a strong sense of ownership, which led them to the active learning stage. The research findings showed that HaUI top management considered that they have to choose a suitable model on their own. It seems that they had this sense of ownership at the time they started cooperating with JICA and other donors. Without this ownership, they would not have been able to enter the process of translative adaptation. However, this study was unable to figure out how they obtained this sense.

6.2. *Limits to dissemination*

HaUI is likely to be successful at the learning and adaptation stages, in terms of industry engagement, but their progress is slowed at the dissemination stage. There are some internal challenges such as teacher motivation, but a more critical issue is lack of policy support from the government. It is likely that the government considers that HaUI's model is a good example but is too unique to apply to other TVET institutions.

Lack of government support may be in part caused by insufficient inter-ministerial coordination since HaUI belongs to the Ministry of Industry and Trade (MOIT), while the Vietnamese TVET system is managed by the DVET under the Ministry of Labour, Invalids, and Social Affairs (MOLISA). However, a pilot skill test on machining center operation, another output of the HaUI-JICA Project, was well recognized by the DVET under MOLISA and scaled up to the national skill test level (see Chapter 5). The difference between these two cases may be attributed to the timing and extent of government agency involvement in learning and adaptation. The industry engagement system has been developed mainly by HaUI with little government involvement, although they were always kept updated through project steering committee meetings. In contrast, government agencies, such as DVET, are more involved in the process of developing the national skill test, in part because DVET's approval is mandatory when seeking to conduct such a test. Therefore, the involvement of the government from the learning stage contributes to wider dissemination. It would be too late to approach the government when the model has already gone through the adaptation stage. Simply, they would consider it to be another organization's model. In this sense, the strong ownership and capacity of HaUI to manage everything by



Source: Mori (2024, 200).

Figure 3.3. Future Direction of HaUI's Industry Engagement System

themselves may have negatively affected the wider dissemination of their achievements through the government agencies responsible for TVET since they did not need significant government involvement in developing partnerships with firms.

6.3. Dynamism of translative adaptation

The research findings indicate that HaUI has selected the Japanese training process management system, after studying other countries' practices and considering their capacity and industrial contexts. However, this is not the end of the translative adaptation process. They have been adapting the training process management system, but they keep studying other countries' practices either on their own or through ODA projects.

It is uncertain how HaUI's employment engagement system will be transformed in the future (see Figure 3.3). It may aim to fully adapt the Japanese training process management system, which encourages TVET institutions to acquire information on industry skills needs not only through formal meetings for curriculum development but also through other forms of interaction, including company visits. Another possibility is

that since HaUI continues to study Western models, they may implement the DACUM method and CBT to the fullest, taking advantage of increasing number of partner firms. Certainly, there is a possibility that they will generate a unique model, which may not exactly follow those developed in Japan or Western countries. In short, translative adaptation is not a static but a dynamic process, as far as counterparts keep developing their absorptive capacity through learning by doing processes and maintaining a sense of strong ownership.

7. Conclusion

This chapter examined the development process of HaUI's industry engagement system and activities, with special attention being paid to how HaUI has learned and adapted foreign models presented by donors. The research presented evidence that after actively learning various foreign models related to industry engagement, HaUI selected the Japanese training process management system for the improvement of TVET programs and has been attempting to localize it, taking into account their current capacities and the extent of support they receive from industry.

HaUI has been mindful of the process of translative adaptation because of its strong ownership, confidence enhanced by capacity building, pragmatism, and persistence including continuous self-learning. The research findings suggest that HaUI has developed confidence and capacity at the learning stage, taking advantage of technical assistance from JICA, and hence they are able to adapt the foreign models to their institutional or industrial contexts. In particular, the accumulation of small successes, which HaUI obtained with hands-on assistance from JICA, provided them with confidence and let them decide to invest in the development of a coordination mechanism, namely the CPA. On the other hand, HaUI seems to face slow progress at the dissemination stage due to lack of government recognition and support, which is attributed to weak involvement of government at the learning and adaptation stage. Given that dissemination is also an opportunity for innovation, this might hinder the further development of HaUI's industry engagement system (see Chapter 7).

Furthermore, this research also indicates that translative adaptation is not a static but a dynamic process. While HaUI has selected the training process management system as a reference in developing their industry

engagement system, it keeps transforming the current model. This may converge to either a Western or Japanese model or lead to a home-grown model that would work better in Vietnam's economic, social, and institutional contexts. Following up with this transformation process will provide useful lessons to other developing countries, in particular middle-size countries which attempt to promote industrialization by utilizing foreign direct investment (FDI) but struggle with lack of dynamism in skill demand.

Finally, this research also suggests that the strong ownership has enabled HaUI to conduct active learning and adaptation. However, it could not determine how HaUI acquired this strong sense of ownership. It may be an endogenous factor such as the national characteristic of the Vietnamese people (Ohno 2014). Another possibility is that, while it is endogenous, it could have been enhanced by certain events in the process of learning. Further analysis of how they acquired or developed this strong sense of ownership will provide valuable information for future development cooperation in a country which may not possess such a strong sense of ownership and is unable to initiate translative adaptation process, particularly in the early stage of development.

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