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CAMBODIA'S MANUFACTURING INDUSTRY: SKILLS FORMATION SYSTEMS IN THE WORKPLACE

Introduction

A country's economic success is closely intertwined with the knowledge, skills and competence of its workforce (Benson, Gospel, and Zhu 2013). Thus, solid skills development is the foundation for economic prosperity. However, many developing countries are struggling to solve issues in their formal technical and vocational education and training (TVET) systems (Ezekoye 2017), and the quality of those TVET programs is of concern to employers (NEA 2018).

Cambodia has put workforce skills development at the forefront of its development agenda as outlined in the National Strategic Development Plan 2019-23, the Industrial Development Policy 2015-25 and the TVET Policy 2017-25. The aim is to address the problems and promote skills development through the TVET sector (Veung and Ven 2021a). Yet, skills shortages and skills gaps remain and employers are reluctant to hire fresh graduates (NEA 2018):



The Royal Government of Cambodia has embarked on major development initiatives to address skills development issues in order to transform Cambodia into a high-skilled economy. Banteay Meanchey, June 2021

they tend to recruit and train workers internally to partially address these skills challenges (Veung and Ven 2021b).

Such skills formation systems, therefore, need to be examined (Veung and Ven 2021b), but few studies have focused on it. This research aims to bridge the gap by examining the skills formation systems companies adopt for upskilling and reskilling their workers. It also explores the common skills training methods of employers in Cambodia's manufacturing industries. This paper uses qualitative interview data from the "Skills for Industry" project, phase 1b.¹

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1 This project is part of the research project led by the Zürich University of Teacher Education, using data from Bangladesh, Cambodia, Ethiopia, Laos, South Africa and Vietnam, to identify and better understand the critical factors that help or hinder the contribution of vocational skills development to inclusive industrial growth and transformation in low and middle-income countries. In Cambodia, this project focuses on three main sectors: garment, electrical and electronic assembly (E&E), and food processing. Phase 1a firm-level survey was conducted between September 2018 and January 2019, and one policy brief and one working paper are some of the outputs. Phase 1b follow-up qualitative interviews were conducted between October and December 2019.

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Skills Formation Systems

Strong skills formation systems are of great importance (Benson, Gospel, and Zhu 2013), and these encompass formal, non-formal, and informal education and training. The following gives a brief description of some of the different (but not all) forms of skills formation systems.²

Formal technical and vocational education and training

TVET is the major gateway to workforce skills development, and it may be referred to as vocational education and training, technical and technical education, vocational education, or technical and vocational training. TVET can give learners a wide range of, and flexibility in learning experiences relevant to the world of work (Catts, Falk, and Wallace 2011). However, formal TVET does not - its generic features fail to ensure that the skills developed will meet the needs of industries. Consequently, employers perceive that the skills and qualifications of graduates do not meet their requirements (ADB 2016), especially in countries where formal TVET systems are still weak (Veung and Ven 2021a).

In certain contexts, formal TVET can also include dual-type training or apprenticeships offered against a national qualification. This training type is designed to meet industry-specific needs, combining workplace learning with a school component (ECDVT 2014). This can be pre-employment or in-employment training, offered by public or private institutions, or by dedicated training centres run by companies. The employer assumes a contractual responsibility to provide the trainee with remuneration and training leading to a specific occupation (ibid.). This form is popular in German-speaking countries, but much more uncommon in developing countries (Veung and Ven 2021b).

Non-formal training

Non-formal training is “learning embedded in planned activities not explicitly designated as learning in terms of learning objectives, learning time or learning support” (ECDVT 2014, 183–84). Its learning outcomes may lead to certification recognised by an industry or a company, and it

includes short, long, or other training types offered by industries, companies, public and private training providers, and non-governmental organisations. Its aim is to enhance workers’ knowledge and skills for a career move, and for continuing personal or professional development (ECDVT 2014).

When entering the labour market, workers usually receive specific skills training, but most have limited access to formal and non-formal skills training. Moreover, such training opportunities are often offered to highly-skilled workers in large firms rather than those in small and medium-sized enterprises (SMEs) (OECD 2013), except for programs dealing with industry-specific regulations or requirements (Veung and Ven 2021b).

Informal training and learning

Informal learning/training is unstructured, experiential and non-institution-based, and outcomes mainly result from daily work-related and other leisure activities (Barber 2004). Thus, learning occurs in the workplace and through employees’ social interactions (Caldwell 2000; Nguyen, Truong, and Buyens 2011). Companies usually provide different forms of informal training and learning opportunities as part of their corporate strategies. On-the-job training is popular, and is incorporated into workers’ normal work routine, while off-the-job training is small-scale and more often offered to highly-skilled employees (Veung and Ven 2021b).

Informal on-the-job training often introduces new technologies, product types, or changes in work organisation, and workers develop knowledge and skills through peer learning, observation or guidance. Supervisors and team leaders are responsible for this kind of informal learning (Veung and Ven 2021b). In small companies, most workers are trained in informal, knowledge-intensive activities (OECD 2013) due to time pressure, labour shortages, limited financial resources, and negative perceptions towards formal and non-formal employee training (Panagiotakopoulos 2011).

Overview of the Manufacturing Sectors under Study

Manufacturing is key to Cambodia’s economic growth (Veung and Ven 2021a; Ven and Veung 2020) and comprises such sectors as textiles, apparel and footwear, food, beverages and tobacco, rubber,

² In this study project, the skills formation system is defined as “the aggregate of the skills formation activities occurring within one company, industry, or country”.

wood, paper and publishing. The following three sectors were the main focus of the case studies.

The textiles, apparel and footwear sector has been in existence since the 1990s, and accounted for 18.2 percent of GDP (USD2.4 billion) in 2018 (NIS 2020). It is the major employer for unskilled and low-skilled workers, especially women from rural households (Ven and Veung 2020). In contrast, *electrical and electronic (E&E) assembly* is a fast-growing, nascent sector. In 2016, the total capital investment in E&E was USD227 million, while its exports rose from about USD6 million in 2012 to USD458 million in 2016 (Ven and Sry 2017 as cited in Veung and Ven 2021a). This sector shows promise for transforming Cambodia's manufacturing into a high-skilled industry.

Unlike other export-oriented sectors, that of food, beverages and tobacco plays a principal role in the country's economic diversification, food security and agricultural development. For example, its production amounted to USD254 million (1.9 percent of GDP) in 2018, up from USD114 million in 2002 (NIS 2020). However, it is still underdeveloped as Cambodia imported USD1.9 billion of related products in 2018. This implies that this sector needs the enhancement of technical and human resources, with a well-designed strategic initiative (Veung and Ven 2021a).

Despite its importance to the economy, manufacturing is still labour-intensive with unsophisticated production chains and the employment of large numbers of unskilled and low-skilled workers (Veung and Ven 2021a). This underlines Cambodia's need for a national skills formation system that addresses companies' questions about the skills and qualifications of new graduates (NEA 2018; Veung and Ven 2021b): concern has been expressed about the quality and relevance of skills training programs offered by public education and training institutions (Veung and Ven 2021a). Thus, to meet the current and future industrial skills needs of these sectors, Cambodia must put more effort and resources into skills development for its workforce.

Research Methodology

A case study approach is used to explore the reality of skills formation systems within companies and to examine why employers favour certain forms of skills training for reskilling and upskilling

employees. Qualitative data from 36 interviewees was used from 18 companies selected from the previous 101 surveyed in the Skills for Industry project. Six companies per sector (garments, E&E and food processing) were chosen. Interviews were conducted between October and December 2019 with senior managers or human resource managers, and production representatives in each firm, mainly focusing on high- and mid-skilled employees who play a principal role in the companies' growth and operation. Questions focused on companies' experiences from 2015 to 2019.

Interview transcripts were coded based on hiring, training, and TVET programs. The respondents' perceptions of skills and qualifications, company skills requirements, and the human resource strategies to cope with the skills needs and challenges, were analysed. This study aims to surface the patterns occurring across companies and does not include a comparison of the perceptions of different respondents from within the same company.

Research Findings

This section presents findings relating to the skills formation systems that are commonly used for reskilling and upskilling workers. It also identifies key personnel in charge of informal training and learning.

Overall attitudes of employers towards TVET programs

The study indicated that employers do not prioritise TVET qualifications when recruiting high and mid-level employees. Most regard existing TVET programs as insufficient in terms of quality and relevance to their needs. Instead, most employers tend to focus on previous work experience and skills testing, even if applicants have undergone TVET programs. As the human resource respondents from E&E company ce5913f, and garment company cgf21ef commented:

The company does not focus on TVET because it is not relevant to our needs. It means that we don't focus on TVET because their programs are not relevant to your company's needs. (ce5913f hr)
The higher management is not interested in qualifications or certificates; they do not care much. (cgf21ef hr)

The production respondent from garment company cg16903 added that TVET qualifications are not the most important factor guiding recruitment or promotion. Most garment respondents reported that few employees who deal with electricity and machinery repair have TVET qualifications, while the rest have only practical skills and work experience:

I think that, since we are a garment factory, experience is more important than schooling or formal education... (cg16903 pro)

In the E&E sector, most respondents could see the importance of more employees with TVET qualifications because their production requires a certain level of understanding about technical matters. However, while employers understood the value of formal TVET qualifications, not many existing employees actually held such qualifications or degrees. The scarcity of skilled labour with technical degrees leads to recruitment difficulties, as indicated by the human resource respondent from E&E company ce166e20:

In Cambodia, we haven't seen any applications from technicians yet. If we choose only technical skills, we cannot find anyone. (ce166e20 hr)

Likewise, food processing companies reported that high and mid-skilled employees need to have technical knowledge and skills in food technology, food safety, or chemical engineering. However, the number of employees holding technical degrees was still relatively small. This could be because companies need only a few high- and mid-skilled employees, but more low-skilled and unskilled workers in production lines across selected industries as employers look for competent and experienced jobseekers:

As I said, the criteria of having a certificate and not having one here, supervisors generally need at least a high school diploma. If they have a BA or an associate degree, that is also preferred. ...I don't strictly need educated or experienced people. What I really need is talent, willingness to work and that they are fast learners. (cf10395 pro)

In general, respondents do not recruit staff based solely on formal TVET programs or university degrees, and this is especially true for those in the garment sector. However, they agree that people with a better education and training, regardless of whether they have general education or TVET, have fundamental knowledge and skills that enable them to learn or adapt more quickly to new technologies, product types, and changes in work organisation. As the human resource respondent from an E&E company explains:

The more educated they are, the better they can do the job than those who are not well educated. ...The government should try to educate more people through general or technical education. People with low education are difficult to manage or work with. They don't understand the work or they don't have work readiness. (ce166e20 hr)

Informal training and learning as a dominant form of the skills formation system

Most companies do not rely on local TVET providers to supply them with graduates. They hire high- and mid-skilled employees depending on relevant work experience, and most are internally promoted based on good work performance: companies use their in-house skills training as a core method for reskilling and upskilling workers. This approach meets their specific needs, reduces training costs and sustains a production workflow. The human resource respondent from food processing company cf3 explains:

Their skills are gained through internal training... The advantage of this is that the company trains the employees according to actual needs. Second, it is related to expenditure. The company does not have to pay anything since it is internal training. If we send them outside, the company needs to spend on air tickets and tuition fees. (cf3 hr)

Whether recruited from outside or promoted internally, employees need to undergo a set of internal skills training relating to their work roles or positions:

Regardless of the skills or knowledge new recruits have, these would not match the company's needs. Therefore, OJT is to prepare them for work. (ce4771 hr)

Most important is safety; we care about work safety first and then quality. They all have to learn about safety and gain knowledge and skills to work for the company. (cf10395 hr)

The companies in this study employ two types of informal on-the-job training. The first type is to introduce new technology and product types. The other is ongoing learning, through peer learning, task guidance or support from senior workers or supervisors. Company employees usually receive the first type from machine suppliers, buyers or overseas branches, indicating companies' reliance on external expertise when they consider adopting new technology, product types or work system techniques. As illustrated by the human resource and production respondents from garment companies cg1099f and cgbc830:

Chinese employees teach line leaders and supervisors when there are new styles and machines that we need to use. (cg1099f hr)

If we buy a new machine, the machine company provides a specialist to train us. They trained us in some part that we were not familiar with. (cgbc830 pro)

This focus on informal in-house skills training and learning indicates how heavily most companies rely on their internal skills transfer mechanisms. According to most respondents, providing employees with this training is unlikely to lead to certification or qualifications. Advanced, off-the-job skills training is also small-scale and informal, and is often only targeted at high-skilled employees when a new or additional skillset is required - for technology upgrading, the introduction of new and complex product types, new work arrangements or production techniques. This kind of training often takes place abroad:

Buyers invite employees to undergo training at their office to learn about new products for one to three days... We also send them abroad, but only rarely. Section supervisors have gone to Vietnam to learn from other factories. (cgf21ef hr)

It depends on our needs but mostly this involves only a few [employees]. Engineers, mostly go to the company in Thailand, China, the Philippines, and so on... (ce5913f hr)

Key players in on-the-job training and ongoing learning processes

As informal on-the-job training and learning are crucial for the success of skills transfer in many companies, supervisors, team leaders, and senior workers play a key role. In addition to their existing practical skills and competence, these people have also gained skills and techniques from the expertise of machine suppliers, buyers or overseas branches. Consequently, they bear the responsibility for transferring their practical skills, knowledge or techniques to those under their leadership. According to the production and human resource respondents from food processing companies cfc0bb6 and cf125571:

Their colleagues alert them when they are working, then they can learn through them, and it becomes general knowledge. (cfc0bb6 pro)

For example, we have a team leader who trains new operators on-the-job for a short time... The internal training relates to a technique and the trainer is a high-skilled employee who can share their skills. (cf125571 hr)

Similarly, production and human resource respondents from garment company cgszyy and E&E company ce5913f explain:

We do not send them [for external training]. We have Chinese employees who have such skills training other employees... (cgszyy pro)

For skills, their respective higher-ups or boss will train or teach them. It is the company's principle... (ce5913f hr)

Overall, informal on-the-job training and ongoing learning processes that supervisors and team leaders offer lack structured learning content. Previous studies indicate that most supervisors and team leaders themselves do not have any TVET qualifications or technical degrees (Veung and Ven 2021b). Therefore, they are not specifically prepared to be professional trainers or instructors due to a lack of comprehensive skills training programs or support systems.

Conclusion

Formal skills training usually plays a central role in skills development, and has been emphasised in the Cambodian government's major development

initiatives. However, employers see skills-related problems in workforce skills development as a whole (NEA 2018) and opt for different methods to address this (Veung & Ven 2021b). This study presents three important findings:

First, employers do not value formal skills training and do not prioritise qualifications from formal education and training when they recruit or promote employees: they prefer to screen applicants based on relevant work experience and skills testing. Furthermore, the number of employees holding TVET qualifications is relatively small, particularly in garment companies. This suggests that improving the quality and relevance of education and training programs is necessary to boost employers' trust in the formal skills formation system.

Second, employers prefer on-the-job training for their employees, especially general workers and operators, because it matches their skills needs. This includes peer learning, guidance and practice, job orientation, and other operation-related training activities. A few high- and mid-level employees have access to off-the-job training, mostly informal and offered by experts or trainers at overseas branches. This informal on- and off-the-job skills training should be systematised and expanded for all workers regardless of occupational levels.

Finally, high- and mid-level employees are key to in-house skills transfer. Most employees taking this role do not have TVET qualifications and also lack professional and solid skills training to be in-house trainers. Thus, companies need to equip them with proper skills training which will not only benefit the recipients but also companies and other beneficiaries when the spillover of skills and knowledge occurs within companies and across sectors.

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