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What Skills Training Do Cambodian Garment Workers Need?

Chea Vatana, You Saokeo Khantey and Song Sopheak

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CDRI
☞ 56 Street 315, Tuol Kork
✉ PO Box 622, Phnom Penh, Cambodia
☎ +855 23 881 384/881 701/881 916/883 603
@ cdri@cdri.org.kh
🌐 www.cdri.org.kh

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List of abbreviations

CDRI	Cambodia Development Resource Institute
DEMIS	Department of Education Management Information System
GMAC	Garment Manufacturing Association in Cambodia
HCT	Human Capital Theory
ICT	Information and Communication Technologies
ILO	International Labour Organization
KR	Khmer Rouge
MLVT	Ministry of Labour and Vocational Training
MoEYS	Ministry of Education, Youth and Sport
NEA	National Employment Agency
NIS	National Institute of Statistics
OECD	Organisation for Economic Cooperation and Development
PIAAC	Programme for the International Assessment of Adult Competencies
RGC	Royal Government of Cambodia
STEM	Science, Technology, Engineering and Mathematics
TVET	Technical and Vocational Education and Training

Executive summary

Background

Given the contemporary labour situation and economic challenges, and the fact that Cambodia has committed to attain a higher income status, the demand for skills development has never been more important. However, individual participation in skills training programmes has always been a challenge even for some developed economies. The participation rate has remained low and has differed considerably across countries. In addition, skill training programmes provided by public institutions for unskilled employees have almost universally ended in failure, as the following assessments often showed that they had offered very little economic value. That said, there appears to be very little literature talking about skills training for Cambodian workers, particularly those employed in the garment industries. Given that the garment and textiles sector is an important driver in the Cambodian economy, considerable attention should be paid to reinvigorate the technical and vocational education and training relating to garments and textiles, starting from encouraging workers to participate in the skills training programmes.

Because it is regarded as a core component of human capital and economic development, TVET is considered crucial for the long-term development of both the individual and the country, and any insight into such a topic certainly has important policy implications. Therefore, as the Royal Government of Cambodia continues to address emerging development challenges with holistic approaches, this study has been conducted with the purpose to support such strategies and provide policy recommendations to deal with fundamental issues in skills development in the garment sector in Cambodia.

Methodology

To determine sample size, we relied on statistics relating to the total population of garment workers in Cambodia. A ±3.5 percent margin of error and 95 percent confidence level are pre-determined. The initial sample calculation showed that the study needed 784 individuals, but this number was rounded up by 5 percent to cope with an expected non-response rate. The final sample size used in this study is 787 individual workers. We conducted a two-stage sampling procedure to ensure that samples would be randomly selected. In the first stage, a stratified sampling with probability equal to size was implemented to pick enumeration areas and how many samples should be collected in each area. In the second stage, a simple random sampling method was carried out. The survey was conducted for 50 consecutive days from mid-June until the end of July 2019. The interview was performed face-to-face and took approximately 45 minutes.

Results and policy implication

This study found that that most workers were not well-equipped with workplace skills, or with the competencies necessary for personal and career growth. In addition, many of them had received hardly any skills training at all that could be valuable for employability in the industrial sector prior to their recruitment. More often than not, they did not wish to receive training to improve skills relevant to their current employment either. Their ability to utilise the rich online or social media content was also limited. These factors are, therefore, likely to hinder individual improvement in labour productivity and hence negatively affect their tenure in the long run given the current situation of rapid increases in wages. That said, most workers wish to attend skills training only if such training is focused on developing other competencies that are not related to garment employment. In particular, they wish to learn a new set of skills relevant to a small-family business.

Specifically, the results indicate that:

- The job-related skills that roughly 60 percent of garment workers had acquired is sewing followed by quality-controlling and packaging; 25 percent of the workers believed that they had mastered those abilities. Moreover, around two-thirds of garment employees were capable of basic reading, writing and calculation, plus using the internet and social networks, dominantly Facebook and YouTube.
- 49.6 percent of the garment workers, especially females, had never received any training prior to the survey date. The rest had participated in basic training such as garment/ textile-related work, hygiene and safety practice inside their factory.
- 67 percent of workers did not show any interest in receiving any skills training in relation to their current job. Rather, most individuals wanted to learn a new set of skills relevant to self-employed work including tailoring, makeup and wedding embellishment.
- Predominant factors that tended to affect their decision to forgo skills training included a lack of interest and time for further education and training, followed by family commitments. And very few people pinpointed the expensive tuition fee as the main reason of not attending a training programme.

In addition, the findings suggest that it can be hard to promote voluntary training for the current employment due to a low level of motivation to develop any garment-related skills, and perhaps a workplace structure that does little to incentivise people to attend skills training. Thus, to encourage more workers to participate in skills training, the authors propose the following measures that concentrate on two different areas:

Training to increase productivity: The first thing to do is to identify specific industrial training needs, which ought to be different from the content of the existing training provided by the firms. Training providers like TVET schools should work closely with firms to design training courses. Additionally, training should be conducted at the workplace during working hours, with a temporary small loss of productivity. More importantly, firms should create an incentive system that links skills training to individual worker productivity. The government has an important role in ensuring the implementation of workplace training and in diversifying investment in training into developing other higher valued-added skills besides those that can be used only in the garment and textile industries.

Training in marketable skills: The training contents offered by TVET providers are overwhelmingly concentrated on agriculture rather than on industrial employment. Also, there is an issue of imperfect information whereby workers are not aware of the availability of skill providers and training programmes. One possible approach is to utilise social media, such as Facebook and Telegram, to spread information. Moreover, workers should be encouraged to undertake training for industrial employment rather than for the informal economy. Also, such skills should be aligned with the country's industrial development policy and recent economic directions.

Since the lack of information about available and funded skills training programmes, and the potential benefits such training could provide, remains an issue, future research should focus on addressing this information gap between training providers and trainees. Questions that would provide useful answers to improve skills development for garment workers include: (1) How best can information about available skills training be circulated in a cost-effective way? and (2) How can the government and relevant authorities provide effective career and training guidance or counselling to make individual workers aware of the benefits of participating in capacity development programmes?

1. Introduction

1.1. Background to the study

Given the contemporary labour situation and economic challenges, and the fact that Cambodia has committed to attain a higher income status in a relatively short period, the demand for skills development on the government agenda has never been greater. This notion can be substantiated by recent top national policies such as the National Strategic Development Plan 2019-2023 and the National Policy on Technical and Vocational Education and Training (TVET) 2017-2025. Both emphasise the need for capacity building through skills training programmes for the current labour force. In particular, skills training has been the main focus since it is indispensable in the creation of a dynamic, competitive and globalised labour market. In the context of the Fourth Industrial Revolution, in which knowledge is deemed to become obsolete within several years (Thangavelu *et al*. 2011), skills training has now become essential to sustainable economic growth and individual progression. Why? Because as the Cambodian economy grows toward a reliance on heavy industry and white-collar sectors shift away from competing on the basis of comparative advantages in low input costs to compete on the basis of a highly-productive labour force, the demand for higher skilled workers will continue to increase.

However, individual participation in skills training programmes has always been a challenge even for some developed economies such as those in the Organization for Economic Cooperation and Development (OECD). The participation rate has remained surprisingly low and has differed considerably across countries (Thangavelu *et al*. 2011). In addition, skills training programmes provided by public institutions for unskilled employees have almost universally ended in fiasco, and, as the following assessments have shown, they offered very little economic value (Carneiro, Dearden and Vignoles 2010; Torgerson *et al*. 2004). One might think that credit constraints are likely to deter the participation of low-skilled workers who are also likely to come from lower socio-economic backgrounds. However, some empirical literature indicates that this is not always the case (Dalziel 2017 and references therein). For example, the Federal Pell Grants and Perkins Loans in the US (Carneiro and Heckman 2002) and the Train to Gain in the UK (Carneiro, Dearden and Vignoles 2010) both of which provide financial support for vulnerable students and workers, were unsuccessful from the beginning due to a lack of applicants. This seems unusual in light of the fact that training programmes aim to provide benefits for individuals: thus the low attendance deserves attention.

In Cambodia, about 95 percent of TVET training programmes are short-term, and the participation rate is still low because there is a lack of well-established vocational and apprenticeship systems (Asian Development Bank and the International Labour Organization 2015; H. Jeong 2014). In addition, about three-quarters of the trainees who did attend a training programme chose one that related to agriculture rather than industry. In particular, the statistical information indicated that, in 2008, only 1.3 percent of trainees chose to gain skills in garments and textiles (H. Jeong 2014; Ven and Veung 2020). That said, there appears to be very little literature that aims to evaluate whether or not Cambodian workers, particularly those employed in the garment industries, did benefit from such training programmes in terms of increased productivity or income. As an economically-driven sector, considerable attention should be paid to reinvigorate its technical and vocational education and training. This should start with encouraging workers to participate in skills training programmes including both hard and soft skills which have been proven to increase workers' productivity (Adhvaryu, Nyshadham and Tamayo 2019). But for a lower-middle income country such as Cambodia,

where the national budget is at stake, it is also particularly necessary to understand in whom, and where, the money would be best invested.

Besides improving productivity, the intention to diversify the economy is another major reason why skills development is part of the Cambodian government's scheme for national progress. It is worth noting that although the four main sectors, namely agriculture, tourism, construction and real estate, and garment industry, have been the major drivers of economic growth for roughly two decades (ADB, 2014), their success also presents Cambodia with a challenge for its economic transition to move beyond the labour-intensive industries. A lack of economic diversification would leave the country vulnerable to economic depression or to the so-called Dutch Disease: such vulnerability was apparent in 2008 and 2009 when the country was struck by the Global Financial Crisis during which the economic growth rate was 0.1 percent. In addition, recently projections predict that the Cambodian economy will go into a recession in 2020 because of the decline in the garment, tourism and construction sectors, which have been hit hard by the COVID-19 pandemic. As a result, without diversifying into higher-value products and services, Cambodia is at a high risk of falling into the middle-income trap (ADB 2014). But, which higher-value products and services the country should expand into is another question that requires an urgent answer.

1.2. Objective of the study

Because TVET is regarded as a core component of human capital and economic development, it is considered crucial for the development of both the individual and the country as a whole in long-term. Thus, insights relating to this topic have important policy implications: as the Royal Government of Cambodia (RGC) continues to address emerging development challenges with holistic approaches, this study has been conducted to support strategies and provide policy recommendations to deal with fundamental issues in skills development in the garment sector in Cambodia. In particular, we take the first steps to explore and identify the problems of underinvestment in training from the workers' perspective, such as what skills they currently possess and the need for further development, what hinders their participation rate, and what solution can be offered to encourage them to participate in training programmes.

1.3. Structure of the report

This working paper consists of six Chapters. After this introductory Chapter, the whole report is organised as follows. Chapter 2 reviews relevant literature about theoretical frameworks relating to underinvestment in training. In Chapter 3 our aim is to offer a general understanding about the Cambodian context relevant to our topic so that readers will be given the details to support our argument that Cambodia should redirect its attention to the skills development of garment workers. Chapter 4 begins with a discussion about our methodology and research design including data collect procedures. Following that, Chapter 5 presents the results, describing the workers' current social and economic conditions, employment and skills possession, and their perception about skills development. Chapter 6 includes conclusions, which are drawn from the findings, and some policy implications.

2. Underinvestment in skills training from an economic perspective

This section provides a theoretical understanding about why there is a substantial and long-term decline in investment in skills training globally despite its economic importance. We shall begin with the classic Human Capital Theory (HCT) (Becker 1962) which has been the most prominent model in the economics of education and was introduced during the 1960s by

Mincer, Shultz and Becker (Dalziel 2017). HCT is derived from the neoclassic economic school of thought which assumes that individuals are rational, and that their goal is to maximise their utilities. As a result, it perceives education as an individual investment, and thus the theory has been used to explain who is likely to demand, and to be potentially provided with skills training (Carneiro *et al*., 2010).

HCT maintains that individuals choose to trade their potential income for education in the hope that they will be more productive and can secure higher rewards associated with their educational level in the future. Therefore, it posits that a person is willing to incur the high cost of learning if they know that the return is sufficiently high to justify the short-term loss. It is worth noting that skills training is another form of investment in human capital, so workers have to also trade their opportunity cost and out-of-pocket money to gain new skills to increase their productivity and hence income. Indeed, some studies have proven the correlation between job-related training and higher wages (Leuven and Oosterbeek 2008). Individuals are also expected to continue joining training opportunities as long as the benefit from doing so exceeds the cost: otherwise they are being irrational. Thus, young employees are believed to be more likely to attend training programmes since they have a longer horizon to enjoy the advantages stemming from such an investment.

Individual training also provides employees with ample opportunities to move to other occupations where there is a high demand. Similarly, employers can offer internal training to re-skill an over-supply of employees in particular positions to fit them to occupy others where there is a shortage of labour. This will reduce a skills mismatch within firms. But why is it then that individual investment in skills training has, in general, been so low? Some studies demonstrate that credit constraints may play a role, as low-skilled employees are likely to lack the financial resources to pay the direct and indirect costs of training (Stevens 2008; Acemoglu and Pischke 1999). But a number of empirical studies contradict the claim of financial limitations and assert that this is not always the case (Dalziel 2017; Carneiro and Heckman 2002). Another convincing study indicates a problem relating to firms' internal efficiency as the main cause of underinvestment in training as well as excessive turnover both of which reduce the private and social return of training itself (Moen and Rosén 2004). From the workers' perspective, many of these skills are highly firm-specific and are not transferable and are, therefore, not appreciated by other firms to which individuals might move. Therefore, investing in such enterprises is a risky venture and not worth the cost unless the employers can offer incentives to their workers, such as promotion or wage increases, after they manage to acquire such skills. But there is a possibility that a firm might renege on its promises or only marginally raise salaries after the training to save labour costs (Sloof, Sonnemans and Oosterbeek 2007). Reviewing the literature, Leuven (2007) does find that the return to training is generally unattractive, thus explaining workers' lack of interest in investing.

Using an experimental design, Oosterbeek *et al*. (2007) show how different scenarios of promotion and wage increases induce individuals to boost their investment in training. In their study, three promotion rules, namely up-or-out, up-or-stay and stay-or-stay, are considered. As the name suggests, up-or-out means that after the probationary period ends, an employee is either promoted to a higher position and assigned to a more difficulty job, or is fired. This obviously encourages employees to invest in skills training to improve their productivity and thereby potentially secure their tenure. But it is a waste of skills when some workers are laid off because they might be of certain value if kept for other "easy jobs". An alternative to such a harsh promotion policy is the up-or-stay in which case those who are not promoted are assigned to "easy jobs" rather than dismissed. However, it is theoretically believed that workers such

as lawyers, doctors and academics whose nature of work does not vary substantially given the ranks of individuals, might not have a strong incentive to acquire new skills under this scenario (Gibbons 1998). Finally, in the context of stay-or-stay, employers will always assign workers to "easy jobs" regardless of their capabilities. That said, the experimental results of Oosterbeek *et al*. reveal that up-or-stay is the best setting among the three, for employees still indicate a moderate intention to invest in skills training due to their reciprocity - with firms reducing the inefficiency of their investments and assignments.

3. Labour market and skills development in Cambodia

3.1. Labour market and skills mismatch

This section reviews literature mostly in the Cambodian context to provide a general idea about the situation in the country. At the onset, it is worth noting that various laws and regulations governing investment in Cambodia have been designed to encourage the inflow of Foreign Direct Investment. These allow foreigners, who are entitled to many incentives and 100 percent private ownership of business and properties except land, to invest freely in many sectors. Consequently, the labour market in Cambodia is dominated by foreign-owned establishments, especially large enterprises, and both the industrial sector and employment rate have grown considerably (NEA 2016).

The aggregate unemployment rate in Cambodia is remarkably low mainly due to the ILO's definition of employment that also covers the informal sectors regardless of the quality of work opportunities available. Moreover, because there has been no unemployment insurance, most people cannot afford not to work, so they will accept even informal and vulnerable jobs, which tend to grow faster than those relating to formal employment: jobs in that latter category have been unable to keep pace with the swelling labour force which is a result of the baby boom in the 1980s and 1990s. However, because of the abundance of informal jobs and the wages that accompany such employment, workers are likely to quit as soon as their work becomes unpleasant. This has led to the high turnover rate, which currently characterises the Cambodian labour market.

To break this down further using a gender and youth perspective, the labour force participation rate is high at more than 85 percent for both males and females, while that of teenagers aged between 15 – 19 years is also high, but critical, at 54 percent of which rural dwellers constitute the largest proportion (NEA 2013). With that said, the rate of participation also decreases with education levels, and that reflects the structure of the labour market in the country which mostly requires low-skilled workers. However, those who have a high-level education, usually possess a set of skills different from those the market generally needs. This can be substantiated by the School-to-Work Transition Survey 2014 which found that 45 percent of young working Cambodians are underemployed or undereducated for their employment because of a skills mismatch which impacts the productivity of firms and, more importantly, personal employment security and income. Early involvement in employment may explain why some young workers with a low-level of education possess low skills, as this is the age at which they should be at upper- secondary school rather than in the labour market. Such data does not reveal if their employment is full-time or part-time, but, either way, it is still largely affected by their school performance or attainment leaving them very few options for jobs, currently and in the future, most of which will involve work that is low quality and low-paid. Furthermore, firm expansion will also be hindered by skills shortages, because many job seekers do not possess the specific skills requested (Bruni *et al*. 2013).

As heated an issue as this currently is, it is pivotal in providing some insight into the skills need and skills mismatch in the Cambodian labour market, the latter of which is both vertical and horizontal. Skills mismatch is considered to be a form of market failure which arises because either the economy does not create employment relevant to workers' skills, or the available education and training do not instil students with the competency necessary for the labour market. The former and the latter, however, have to be distinguished since the former does not suggest the idea that the educational or vocational system is failing to impart skills. On the contrary, it can be used to retrain those who face skills obsolescence and equip them with a new set of skills to meet the current demand and in turn reduce the unemployment rate. Bear in mind that it is not unusual to see employers complain about the difficulties they face in filling vacancies while the unemployment rate remains so high. And we are not talking about a short-term mismatch that often occurs as a result of imperfect information or labour market frictions, making job searches expensive for both employer and employees (Mavromaras and Sloane 2015).

It is worth noting that although the momentousness of human capital development in predicting long-term economic growth, in both theory and evidence, has been well-established (Romer 1990), a problem relating to the misallocation of skills, which determines workers' performance and thereby their productivity and wages, continues to plague the labour market especially that of developing countries (Ilias and Imanol 2017) such as Cambodia. The Cambodia Employer Skills Needs Survey in 2015 indicated that many employees do not possess the skills necessary for the workplace at the level that is required by firms, and that employers find it difficult to fill some vacancies (NEA 2016). As a result, the need to train and develop the skills of workers is more important than ever before to fill the skills gap and to address skills shortages. Many policies have subsequently been developed to encourage investment in work-based life-long learning but to no avail. So why are education and training not providing enough skills to satisfy firms? Such skills gaps can be best explained by three possible reasons.

First, wages do not reflect genuine skills shortages, and workers are not incentivised to acquire appropriate skills to perform their job properly. In Cambodia, many firms such as those in the rubber, garment, and the food/beverage sectors reported that they face severe hard-to-fill vacancies (Bruni, Luch and Kuoch 2013). But despite an unquenchable appetite and the complaint that they are unable to find enough qualified workers, the wages that they are paying seem very unlikely to create a stimulating environment because most firms also cited competition from other firms as the main reason that they could not find workers to fill elementary occupations. As Bruni *et al*. (2013) and NEA (2016) put it, most Cambodian enterprises do not commonly respond to skill shortage problems by providing financial incentives to attract those with desirable expertise. Instead they increase the workload of existing staff members or subcontract, followed by the provision of training. Consequently, it is not just about a failure in education and training, and encouraging universities and TVET institutes to provide specific skills such as the STEM (Science, Technology, Engineering, and Mathematics) subjects will not entirely solve the problems. If wages are not sufficiently high, those who pursue a STEM major are still more likely to work in the financial sector (where the job landing rate is high and salary is higher) and use only a subset of their skills.

Second, it can be the case that workers have no interest in adjusting their skills to fulfil the currently unmet demand. But statistical information surprisingly suggests that the main reason for skills gaps in Cambodia is not insufficient training or skills themselves, but a lack of worker motivation followed by inexperience for the position to which they are appointed, which is caused by high turnover (Bruni *et al*. 2013; NEA 2016). A potential solution for the latter is

to provide additional training, but organising a training course is also a challenge for many firms who have documented the fact that they have difficulty in finding a qualified trainer or in upgrading the skills of the existing workforce due to a lack of foundation on which the training could build. In addition, research studies hardly ever point to which form of training contributes most to workers' skill development (Ferreira, Künn-Nelen and De Grip 2017). That said, the content of the training provided by firms in Cambodia is also a major issue in itself as will be described later.

Third, firms do not redefine the nature of occupations to take advantage of the kinds of skills that are contemporarily supplied by the labour market. Due to skills shortage, firms may choose to hire insufficiently skilled workers with the expectation that they can be developed through on-the-job training. Therefore, they tend to seek trainable employees, regardless of their initial skills, and invest in reskilling them, while workers may accept the job before a better position is available. However, some employees in the firms then find themselves with the wrong skills, the price of which will be paid by both employers and workers in terms of a loss in production and wages, respectively. Given the mismatch and job dissatisfaction which normally follows (Vieira 2005), these workers are highly likely to move across industries seeking employment in other occupations provided that the incentive is right. But if the mismatch persists and workers continue to lack the skills required for their career development, they are likely to repeat the cycle as soon as they are offered a higher salary by another company. This pattern thus contributes to the high turnover rate and "inexperience for the position".

That said, evidence also suggests that, generally, those with tertiary education are likely to attain stable employment and spend less time in transitioning from school to a satisfactory job (NIS 2015). Thus, in a country of imperfect information about job availability, clearly education still has a role in reducing frictional unemployment which is caused when a worker or a new graduate finds a job or moves from one employment to another. Higher education is, in addition, translated into higher and faster adoption capabilities to new technology, knowledge and skills, and hence presents more favourable opportunities for remaining in the labour force. In contrast, low education directly puts workers in developing countries (where there is little social protection) in a detrimental position, because they are forced to leave the labour force early and become structurally unemployed. This is prompted by socio-economic changes such as technological advances in production meaning that those who are willing to work, do not fit the available employment opportunities because the skills that they can offer no longer meet the demand of firms.

3.2. General education

As skills mismatch is a matter of education and training challenges in the country, this sub-section will offer an overview of the Cambodian educational system, while the subsequent part will talk about training. On education, quantity, measured by years of schooling, has been frequently used to measure workers' skills, but in recent years, the quality dimension has also been a focus. However, the emphasis in this paper is on quantity only, since it is easier to examine given data challenges faced by developing countries.

The origin of the skills gaps in Cambodia can be linked to the country's recent past and the destruction of the education system by the KR regime. It has been documented that around 90 percent of the education infrastructure was destroyed or in ruin as a result. In addition, 70 percent of primary and secondary school teachers and pupils and 90 percent of university lecturers and students were either massacred or died as a result of forced labour, disease, and starvation (Clayton 1998; Hang Chuon 2017). Following the collapse of the regime, the education system

was resurrected, but educators were then enlisted regardless of their qualifications - as long as they were able to read and write and willing to do it for a very low salary they were taken on (Hang Chuon 2017). Because of their disadvantages, some teachers have been slow to adopt new cutting-edge curriculums or modern teaching technology. Some have considered this to be a chronic infirmity in public schools. Nonetheless, Cambodia's fiscal policy has also been prudent. According to the Law on Financial Management, the annual educational expenditure has only hovered at around 15 percent of the country's GDP in recent years, jumping from 10 percent in 2014.

Since 1996, general education has covered 12 years - primary schooling for six years, lower-secondary school for three years, and upper-secondary for another three years. The first nine years are mandatory. General education in public schools is provided free of charge by the government, yet not all children attend. In 2012, only about 3.12 million, or 79 percent, of the total number of children aged between 5 and 17 were attending general education, according to the National Institute of Statistics (NIS 2013). This number comprises more girls than boys at primary level, but the former are also more likely to drop out than the latter at secondary education level, even though girls tend to perform better than boys in school (DEMIS 2019; MoEYS 2018). That is, girls are more likely than boys to have attended school, but are also more likely to drop out, whereas more boys than girls have never attended school, but once they do, they remain in school for a longer period. This trend is even more severe in rural areas where the gender parity index is 1.3 boy per girl at upper-secondary school. As a result, girls are more vulnerable and disadvantaged than boys in the labour market given their lower education and skills. Nevertheless, the dropout rate and even the repetition rate in rural areas is twice that of urban regions (DEMIS 2019). Because of the considerable dropout rate among poor and rural pupils at lower-secondary level, a sizable proportion of students who complete upper-secondary education and enter higher learning institutions is accounted for by children of middle- and high-income families.

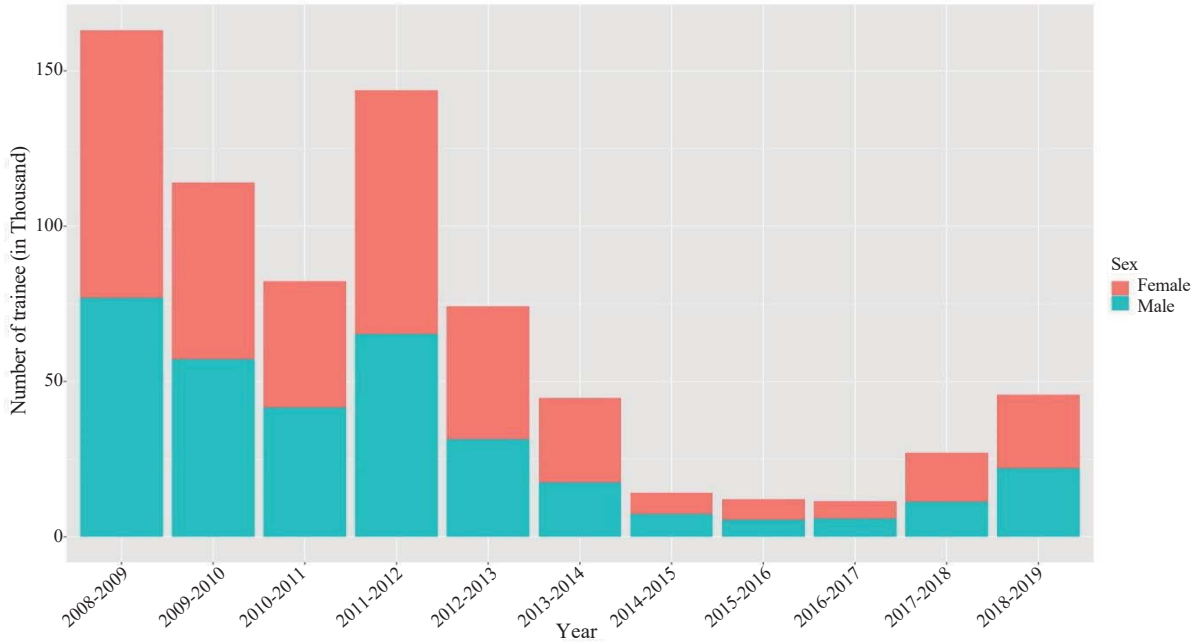
Rural households' underestimation of the return to education (and TVET) has also been a major reason why education itself seems less attractive to them (World Bank 2012; Chea and Wongboonsin 2020). Empirically speaking, in employment practice in low-skilled sectors, in which the bulk of workers are young rural-urban migrants, schooling is hardly ever, if at all, taken into consideration during recruitment, and those who reached lower-secondary level usually find themselves sitting on the same or even smaller chairs as those who have achieved barely a few years of primary education (Chea 2015; Chea and Wongboonsin 2020). Thus, students are discouraged from staying on in school beyond lower-secondary level if they have no real intention of continuing to higher learning. Moreover, income-generating opportunities in the formal and informal sectors also potentially play a part in dragging youth out of school and disrupting their education attainment entirely. For many poor families in Cambodia, an immediate income from a paid job, even if it is small, seems more desirable than keeping children in school (*ibid*.). In sum, the perpetual skills mismatch can be seen as a by-product of low school enrolment at the secondary-level and a relatively poor education system, overall, available to rural youth. But low completion rates of mandatory general education also present a big opportunity for formal and non-formal training to play a role, and that still leads to a positive impact on individual livelihoods and the economy as a whole.

3.3. Technical and vocational education and training

Increasing labour productivity has been seen as a primary goal for most developing countries in order to avoid the middle-income trap. The World Bank's World Development Report in 2019 also emphasises the role of building human capital and lifelong learning as the keys to economic development and sustainability in a dynamic world (World Bank 2019). At a national level, most governments also believe that investing in human capital is the right choice to achieve national prosperity and sustainability. As a result, a policy framework that aims to improve economic performance is generally directed towards investing a significant portion of the national budget in TVET. This is not surprising given the current body of literature that highlights human capital development in general, and training in particular, as a means to increase labour productivity and the ability to adopt new technology, mobility, and quality of life through higher income, as well as the possibility to gain better-paid employment (Crespo Cuaresma, Lutz and Sanderson 2014). The Cambodian case is no exception. In accordance with the Law on Financial Management in recent years, the country has committed an increasing share of its budget annually, commensurate with its economic growth, towards reinvigorating its TVET system.

The current TVET system consists of short- and long-term courses and learning at institutes of higher education. The former are the most popular in Cambodia and include workshops and non-formal training that require less than a year. It has, however, been found that the training generally takes between 3.6 and 4 months, and the quality is below that expected by industries (Jeong 2012). On the other hand, the long-term training requires one full year, and those who complete such a programme are granted a vocational training certificate that comprises three levels. This type of training normally involves only a small number of participants who are predominantly male. But in recent years, this seems to have enjoyed increasing popularity (Department of Labour Market Information 2020). Finally, the higher learning mechanism consists of four levels ranging from a higher diploma, which require two years, to a doctoral degree which is not our focus. Thus, we will concentrate only on short-term industrial training.

Figure 3.1: Number of trainees enrolled in short-term training courses between 2008-2019 by sex



Source: Ministry of Labour and Vocational Training (2015); Department of Labour Market Information (2015, 2016, 2017, 2018, 2019, 2020); Department of Technical and Vocational Education and Training Management (2014).

Figure 3.1 shows the number of trainees who attended short-term training between 2008 and 2019 by sex. It is worth noting that the graph presents only the number of participants enrolled in both private (solely for the academic year 2018-2019 in which the data was collected) and public institutions registered at the Ministry of Labour and Vocational Training (MLVT) regardless of the duration of the training which can range anywhere from a few days to less than a year. Even so, the graph clearly tells us that more women than men have joined training programmes, but why we are seeing a U-shaped trend is less obvious, although the MLVT has received an increasing amount of budget annually from the government. Except for 2018-19, in which 22 NGO and private TVET institutions, along with their trainees, were included, there are a few possible postulations.

First, the vast majority of trainees who participated in the training were covered by some kind of training fund all of which ended in 2013 (Lonn and Khieng 2015). These funds were mostly government recurrent expenditure, donations from international agencies, and contributions from the private sector (Gonçalves 2019). However, a large amount was also redirected toward relieving flood victims in 2010 and 2011. This is according to an unofficial account of the General Department of TVET, and it explains why we see a decline in the number of trainees in those periods. After 2013, the usually subsidised community-based training was no longer able to take place resulting in a sudden plunge in the number of participants (Department of Labour Market Information 2015; 2016; 2017; 2018; 2019; Department of Technical and Vocational Education and Training Management 2014).

As for the second reason, it has been made clear that the general direction of the government in financing TVET training since 2014 is privatisation and industry-led training programmes (Gonçalves 2019; MLVT, 2017). In addition, the General Department of TVET has committed to diversify and mobilise resources from the private sector. Therefore, we can conclude that the previous short-term non-formal training relied heavily on public funding, and it started to fail almost immediately after the fund was removed. However, it is unclear whether individuals or households are reluctant to finance their own training. It should be highlighted also that the number of trainees in figure 3.1 includes neither participants in training that is conducted by firms nor those who join privately-funded informal lessons. According to the 2017 Employer Skills Need Survey, roughly 16 percent of firms in Cambodia also provided training for their employees, down from 58.4 percent in 2015 and 62 percent in 2013 (Bruni *et al*. 2013; NEA, 2016; 2018). Yet it is unclear why there is a sharp drop in the number of firms offering training even though the content of the training does not seem to change over time.

The content of the training itself is also a challenge. In the academic year 2018-2019, roughly 80 percent of all participants taking part in short-course training conducted by some kind of TVET institution, enrolled in a programme related to agriculture, forestry and fishery, followed by the repair and maintenance of electrical or electronic devices at 12 percent, and beauty and embellishment at 3 percent (authors' calculation based on Appendix 1 in the Department of Labour Market Information 2020). Apparently, the training is not intended for industrial workers but targets the rural population whose main source of income is farming and growing crops. In contrast, at about the same time, firms provided training that concentrated on improving employees' soft skills and clerical work efficiency (NEA 2018). Indeed, limited attention has been given to offering skills development for workers employed in the sector considered to be the backbone of the Cambodian economy. That is to say, the manufacturing industry, in particular garments and apparel.

4. Methodology

4.1. Instrumental design and implementation

The research team structured the closed-ended questionnaire into five sections which provided crucial and relevant information about the characteristics of individual workers:

1. General demographic profile
2. Current employment information and personal and working skills assessment
3. Plan for future career prospects and aspiration for skills development
4. Family background and living situation
5. Use of social media and the internet

Our questionnaire, particularly Section 2, included a number of questions from the OECD's background questionnaire in the Programme for the International Assessment of Adult Competencies (PIAAC). The questions were developed in 2010 and have been used in Surveys of Adult Skills in more than 40 countries/economies. That said, not all of the questions in the OECD's questionnaire were adopted in ours. In addition, while some inquiries were fully embraced, some were adapted to make it pertinent to the context of Cambodian garment workers and their education level, otherwise they would not have been able to understand and answer. But the purpose of the questions was entirely retained and closely similar to that of the PIAAC: to understand not only employees' workplace skills but to also to evaluate their three central basic everyday life skills namely literacy (reading and understanding simple sentences), numeracy (simple calculations used in daily life), and ICT. To evaluate their skills level, each individual was asked to give a ranking score from 1 (extremely poor) to 5 (excellent) for a set of 40 instruments, the detail of which can be found in Appendix A. It should be highlighted that the ranking is an individual subjective perception, so it might not entirely reflect their genuine ability.

Prior to conducting the official data collection, we also carried out enumerator training and performed a pilot test between 2 and 8 June 2019 in Phnom Penh and its suburban areas. A total of 21 people were questioned and observed to evaluate the effectiveness and flow of the questionnaire and also to ensure their consistent understanding. The questionnaire was then modified and finalised after a series of discussions among researchers and enumerators. Lastly, the content of the questionnaire also strictly follows general research ethics and was approved by the funder and research ethics committee of the Centre for Educational Research and Innovation (CERI).

4.2. Sample and sampling

The sample of garment labourers includes both full- and part-time employees who were working either during the day or the night shift. However, we did not include those who held a managerial or administrative position in the factory since they have much higher qualifications and skills levels and, thus, they were unlikely to wish to attend skills training programmes that were necessary for garment and footwear workers (ILO ISCO: 753): these are the main focus of our study.

To determine the sample size, we had to rely on official statistics concerning the total population of garment workers in Cambodia which is approximately one million as indicated by the International Labour Organization (2018). The vast majority are also female. A ±3.5 percent margin of error (confidence interval) and 95 percent confidence level were pre-determined so

that the sample size would provide enough statistical power. Technically speaking, the statistics will be within 3.5 percentage points of the real population value with 95 percent confidence. In addition, available resources for the data collection procedure were also seriously taken into account when the sample size calculation was performed. After these initial settings, we used the following formula to determine sample size:

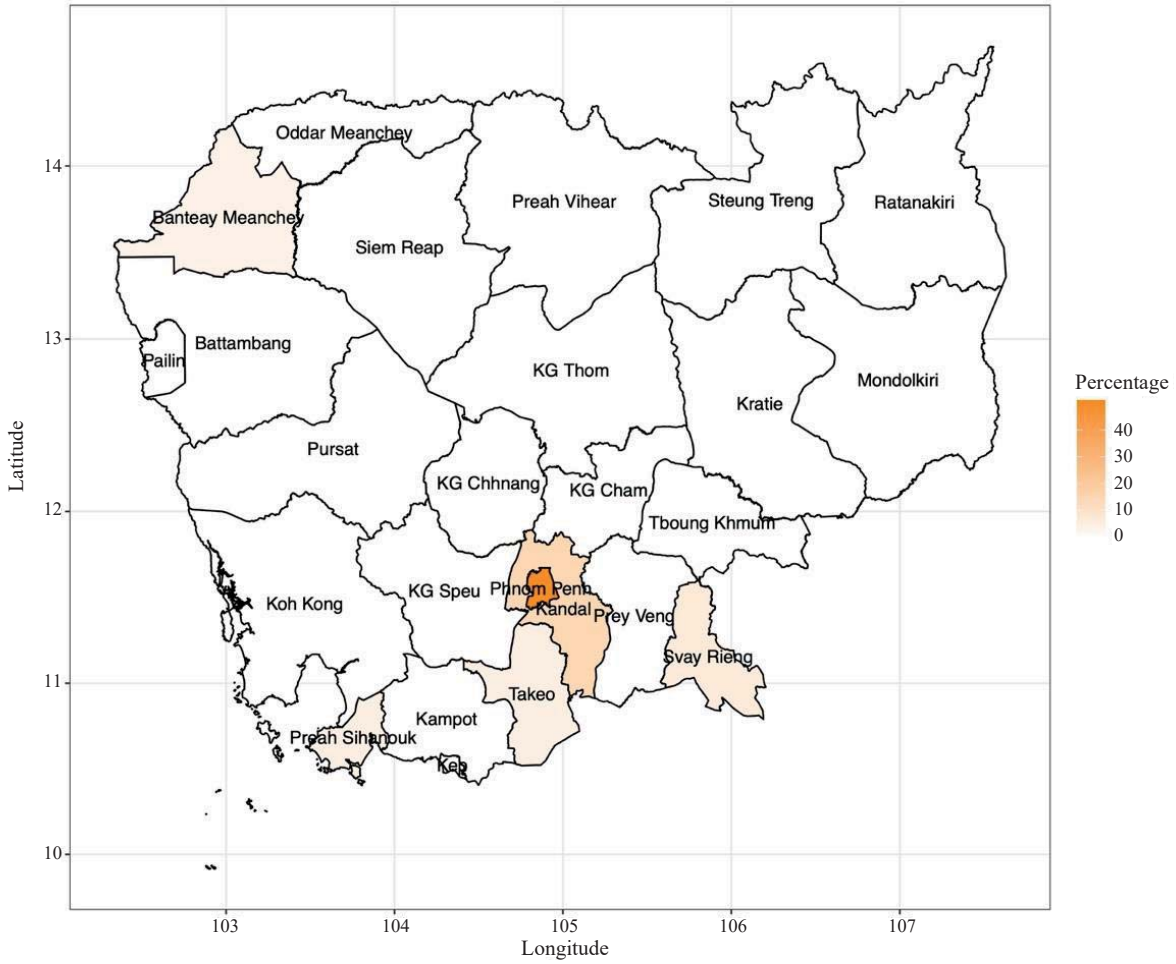
$$n = \frac{\frac{z^2 * p(1-p)}{e^2}}{1 + \frac{z^2 * p(1-p)}{e^2 * N}}$$

Where n is the sample size, and Z is the Z-value of the standard normal distribution. At the 95 percent confidence level (or statistical significance at 5 percent), the Z-value is 1.96; p is the probability of success which is determined to be 50 percent or 0.5 as a rule of thumb; e is the margin of error which in our case is equal to 3.5 percent or 0.035; N is the population size.

The initial sample calculation showed that the study needed 784 individuals, but this number was rounded up by 5 percent to cope with an expected non-response rate. Thus, the number of samples to be randomised and chosen in the field was set at 823 individuals, but, in reality, we managed to survey a total of only 801 garment workers because some randomly selected workers refused to answer the questions entirely but were not replaced in order to keep our random sampling process valid and to avoid sampling bias. That said, we also faced disruptions that prevented some individuals from completing the interview as intended, while some were not comfortable revealing certain information that was crucial to our research. Without full data, they had to be removed from the data analysis. The final sample size used in this study was 787. And it also confirmed that the non-response rate was about 5 percent. Further studies of a similar type that are to be conducted in Cambodia also need to seriously consider this percentage.

On the sampling process, a two-stage sampling procedure was designed to ensure that samples would be randomly selected. In the first stage, a stratified sampling with probability equal to size was implemented to pick enumeration areas and how many samples should be collected in each so that the sample would be sufficiently representative. For a sampling frame, we used information about the name and locations of garment factories, which is publicly available on the website of the Garment Manufacturing Association in Cambodia (GMAC), together with the Cambodia Garment and Footwear Sector Bulletin issue 8 published in December 2018 (International Labour Organization 2018). These documents contain details about locations where industrial complexes, and hence garment workers, can be found. It is worth noting that the workers only live in the areas close to where their workplaces are located such as in the Special Economic Zone. Ultimately, the capital city Phnom Penh, and seven main provinces where garment workers are largely gathered, including Banteay Meanchey, Kampong Cham, Kampong Speu, Kandal, Preah Sihanouk, Svay Rieng and Takeo, were selected during the first stage. Figure 4.1 shows the percentage of selected sample in eight provinces. Phnom Penh has the highest number of samples being selected simply because it has a larger number of garment factories and hence workers.

Figure 4.1: Sampling provinces and percentages of sample selected



Source: Authors.

Following the site selection, we determined the number of individual garment workers we should engage within each of the garment household quarters; that is, the areas where garment employees mostly live. Using the number of factories in each province, the allocation of sample sizes could also be achieved. Generally speaking, the allocation of individual samples to be selected in each area is based on the approximate total number of workers in each province, and we acquired such information from GMAC (mentioned above). In particular, we collected approximately 50 percent of all needed samples in Phnom Penh and the other 50 percent from the rest of the selected provinces. It is worth noting that the GMAC list of garment factories does not contain all the garment and textile establishments in Cambodia, but it comprises most. And to our best knowledge, it is the most reliable and available source of information currently that research study can utilise.

In the second stage of our sampling, we went to the areas we selected and started to gather information about households in which garment workers live as well as the number of individual workers in each household. This figure was collected from landlords and/or housekeepers in charge of maintaining the households, and consists of not only typical households but also boarding houses, dormitories, and other types of institutional households. From the details that included the person's name/nickname and the name of the factory they worked for, we managed to construct a sampling frame which was then used for random selection purposes. To select individual garment employees for the survey, a simple random sampling method

was carried out. In each province and quarter, a similar technique was applied to generate a sampling frame and thereby selection.

The survey was also conducted in the household areas as we were not allowed to conduct the interview on site (at the factory) which would have interrupted their workflow. The sample subjects were approached only during their off-hours, which were between 6 and 8pm from Monday to Saturday, when they were free from work, and the data collection could be carried out throughout the whole Sunday since workers did not work on that day. The survey was conducted for 50 consecutive days from mid-June until the end of July 2019. The interview was performed face-to-face and took approximately 45 minutes. Every attempt was also made to reduce environmental influences. As part of CDRI research ethics, a token of appreciation was also presented to each sample subject at the end of the survey. Upon completion, the questionnaire was rechecked to ensure it was filled in properly by enumerators and verified by their designated field supervisors. *CSPro* and *R* were the computer software programs that were employed to facilitate our data input and cleaning/analysis, respectively.

5. Garment workers' employment, skills and training situations

This section provides descriptive statistics for garment workers under our study. However, prior to discussing the results, it is worth highlighting some facts concerning workers in the garment industry. The migration of single young women into the garment and textile industries in Phnom Penh and its vicinities has been a popular phenomenon since the early 2000s as documented by other studies (Webber *et al*. 2010; Treleaven and Kheam 2013). This is because the garment sector is one of Cambodia's four key economic elements and one of the fastest growing industries over the last 20 years (ADB & ILO 2015). Consequently, it can generate virtually inexhaustible unskilled jobs for the low-educated rural population who seek urban employment, as can be clearly seen in many other developing countries around the globe. In addition, garment-related work is conventionally believed to be female-oriented in Cambodia, so the sector is predominantly populated by female workers. Aside from such belief, many employers also prefer to hire women who are considered more tolerant of unpleasant working conditions and more submissive than their male counterparts (ILO 2012). Some factories in the suburb of Phnom Penh even explicitly state "Females Only" in their job announcements although the issue of sex-segregated recruitment which discriminates against male employees has also been raised over the years.

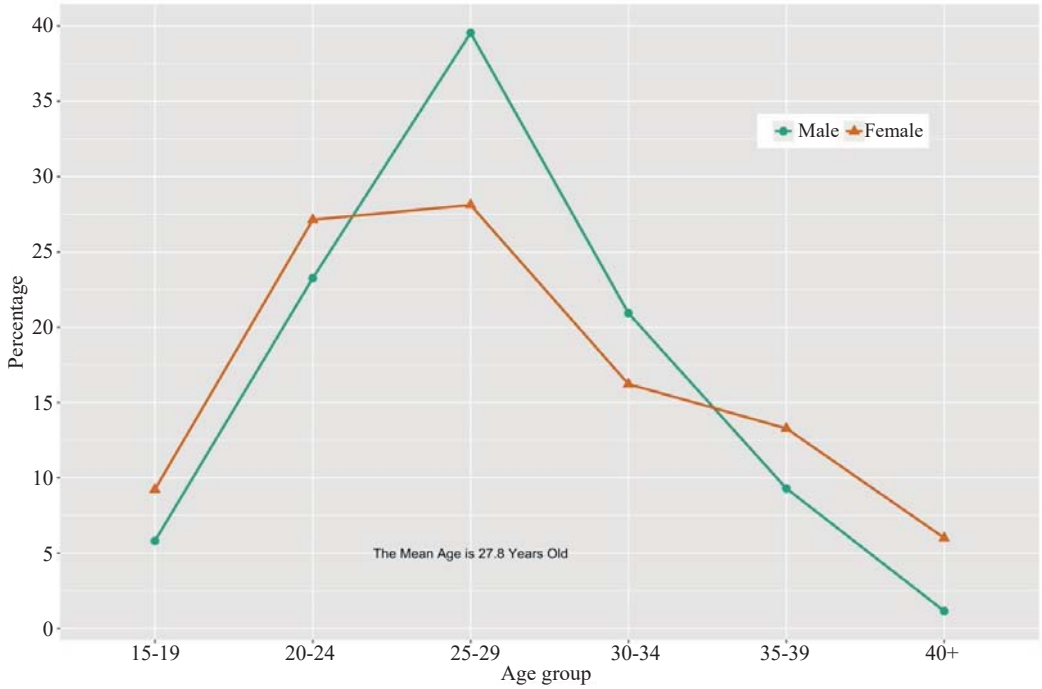
5.1. Socio-economic characteristics

To start the analysis, it is informative to first describe the socio-economic background of garment workers. This is not only to capture who they are, but also to take into consideration as we aim to bring possible solutions to upgrade their current skills. Note that since the vast majority of blue-collar workers in Phnom Penh, especially those in the manufacturing industries, generally migrate from other regions of Cambodia, the demographic characteristics of garment workers also fairly resembles that of labour migrants we might have seen elsewhere in the world.

Figure 5.1 indicates the percentage distribution of the samples by gender and age group. We categorise garment workers into six different five-year age groups starting from the youngest age 15 to the oldest of 51. Their mean age is 27.8 years, and more than 60 percent are young adults, aged between 20 and 34 years. As mentioned earlier, these are common characteristics of migrant workers. These results are also in line with those indicated by the Cambodia Socio-Economic Survey 2016 (International Labour Organization 2018). Additionally, there is a notable age variation between the two genders. For example, over 85 percent of the total

male sample are aged between 20-34 years compared with only 72 percent of females in the same category. As has been stated earlier, this is as expected as it is an essential element of migrants and the migration phenomenon. The data also reveals the illegality concerning their employment. In particular, approximately 1.2 percent of individual employees began their job before they turned 18 years old even though it is prohibited to hire a person under that age to work in the garment factory due to the nature of the employment itself. In a qualitative study, Chea (2015) has also documented a similar finding and asserted that underage labour migrants and some local authorities have been involved in falsifying workers' documentation so that they can work.

Figure 5.1: Percentage distribution of garment workers by age group and gender



Source: Authors.

Table 5.1: Percentage distribution of garment workers by sex and marital status

Sex	*Marital Status*			*Total*
	Single	Married	Divorced/ widowed	
Male	25 3.1 %	58 7.2 %	3 0.4 %	86 10.7 %
Female	230 28.7 %	421 52.6 %	64 8 %	715 89.3 %
Total	255 31.8 %	479 59.8 %	67 8.4 %	801 100 %

Table 5.1 shows the distribution of the sample by sex and marital status. Females are overwhelmingly predominant in the garment and apparel industries accounting for roughly 89 percent. This gender representation also echoes the result of a previous paper produced by the ILO (2018) which found that, out of an approximation of one million workers, the female proportion was over 80 percent. On the marital status of garment workers under our study, the majority of them were reported to be married at 52.6 percent, relative to 28.7 percent who had never been married and 8 percent who declared themselves to be divorced or widowed.

On the other hand, we managed to collect only a small number of male samples – accounting for roughly 11 percent. Among them, most were married (7.2 percent), followed by never married (3.1 percent), and divorced/widowed (0.4 percent). It is important to highlight that information on their marital status is self-reported, so cohabitating individuals might describe themselves as either single or married. In addition, due to the small number of divorced males, any statistical details concerning those might be distorted, so we will try not to the distinguish the sample by their marital status unless otherwise stated. Demographically speaking, age and sex were also more important dimensions to investigate.

Figure 5.2: Percentage distribution of garment workers by education level

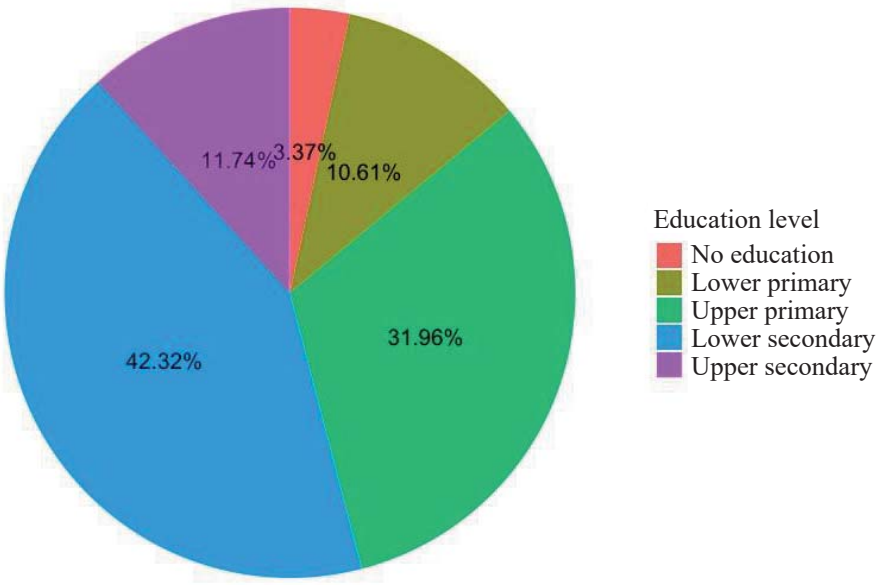


Figure 5.2 illustrates the percentage distribution of garment workers by education level. From their year of education, we divided garment workers into five categories, namely, those without any education, those with one-to-three years of education (lower-primary), those with four-to-six years of education (upper-primary), those with seven-to-nine years of education (lower-secondary), and those with at least 10 years of education (upper-secondary). The latter group also comprises college dropouts who constituted a very small proportion. As shown in the Figure, the vast majority of garment workers had attained some formal general education, and almost half of them had attended lower-secondary schooling. The latter were also the largest group, followed by upper-primary, 32 percent, and upper-secondary, 11.7 percent. Only a small percentage of individuals had never gone to school at all, but if we are to combine those whose education is equal to, or lower than, primary, we find that almost 40 percent of the sample were in this category, which requires considerable attention. In the Cambodian context, such an issue can be entirely understood in relation to the country's tragic history that has been raised as a consequential challenge in terms of human capital and the productivity of the labour force. Although the Cambodian government has made great efforts to improve the outcome of universal school enrolment, there remains a concern over the sizable drop-out rate. Dropping out of school early might not only impose negative consequences in terms of the accumulation of human capital and employment prospects in the long-run, but also represents a challenge for the country to develop and diversify its economy. Further effort is required to encourage young Cambodians to at least make it to lower-secondary level which is essential for their life-long learning.

Figure 5.3 illustrates the percentage of the sample distributed by age group and income level. Income is reported in a range as many people were not comfortable in revealing it either because they forgot how much they earn per month or, for various reasons, they just did not want to report the actual figure. In addition, income is susceptible to recall bias, so we decided not to collect the actual amount of income following our pilot survey. Also, we needed to bear in mind that income also includes overtime payment, but as 95 percent of all of the sample did not have a secondary job, based on our tabulation, this income almost entirely comes from garment work. As we would normally expect, income had a positive correlation with age. Older people tended to have higher incomes because they were likely to have more work experience or years of tenure. It is worth noting that only a small number of people earn between USD 100 and 200 per month, and, generally, garment workers are paid somewhere between USD 200 and 300.

Figure 5.3: Percentage distribution of garment workers by age group and income level

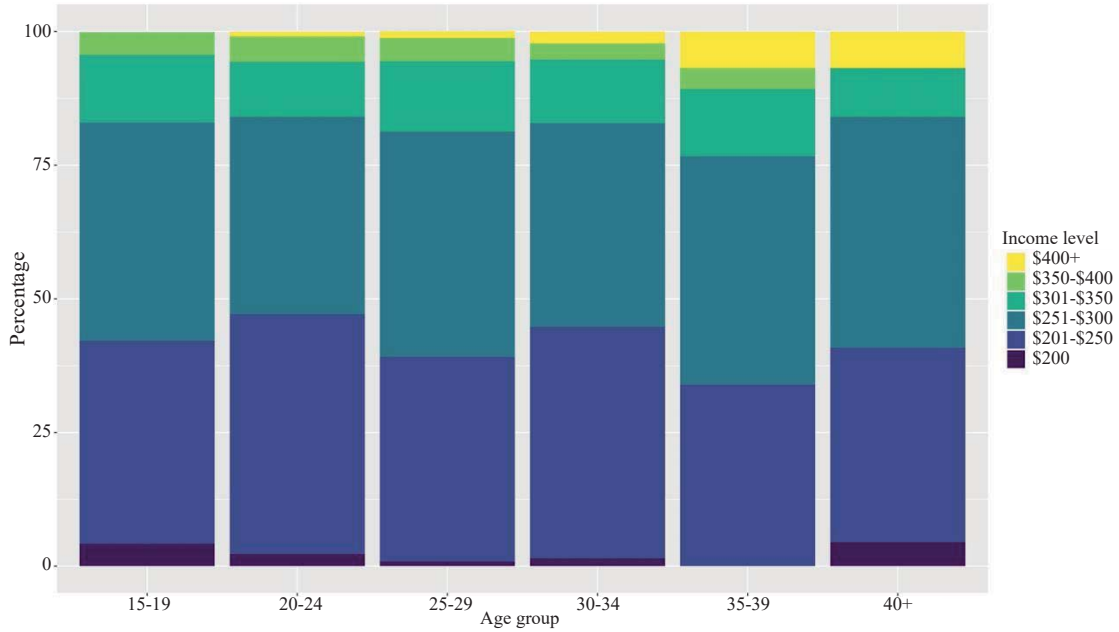
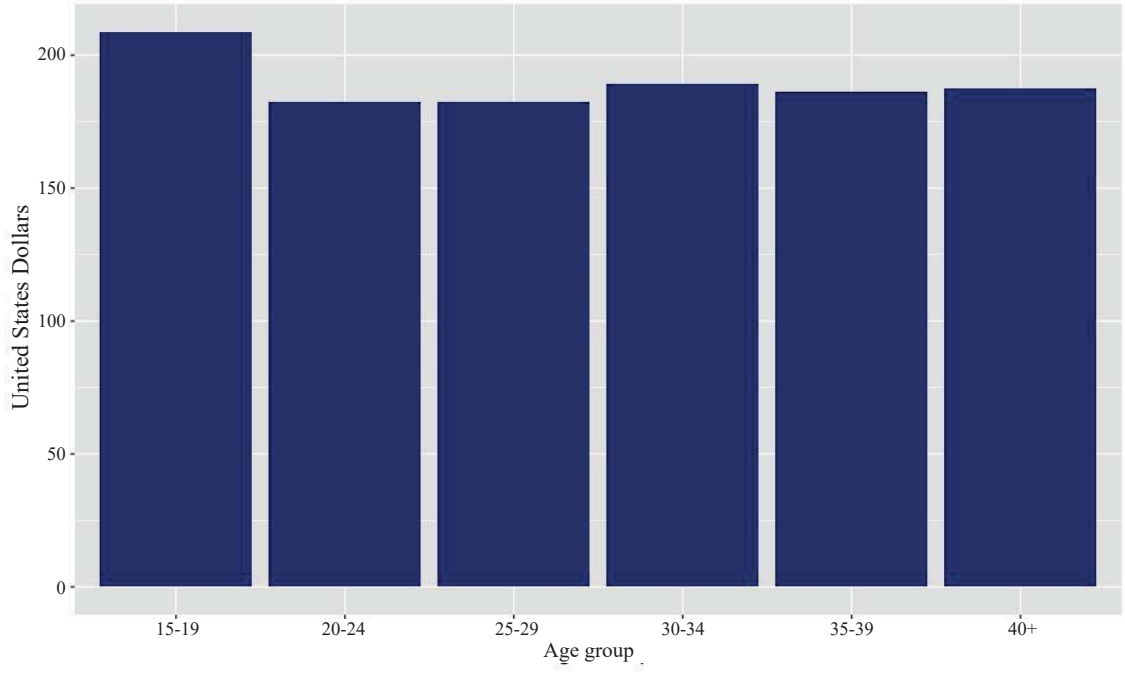


Figure 5.4: Amount of average monthly expenses of garment workers by age group



Now that we have identified their incomes, Figure 5.4 provides statistical information regarding individual expenses per month by age group. The total amount of expenditure was aggregated by detailing the amount of money spent on different categories of consumption, such as food and non-food items and housing. Each garment worker spends roughly USD 187 per month, and the expenses tend to be consistent across age groups (and sex, which is why we do not show it) except for people in the youngest age group who appear to spend more than the rest. However, at the same time, they also earn less.

Figure 5.5: Average time spent per day on housework by age group and gender

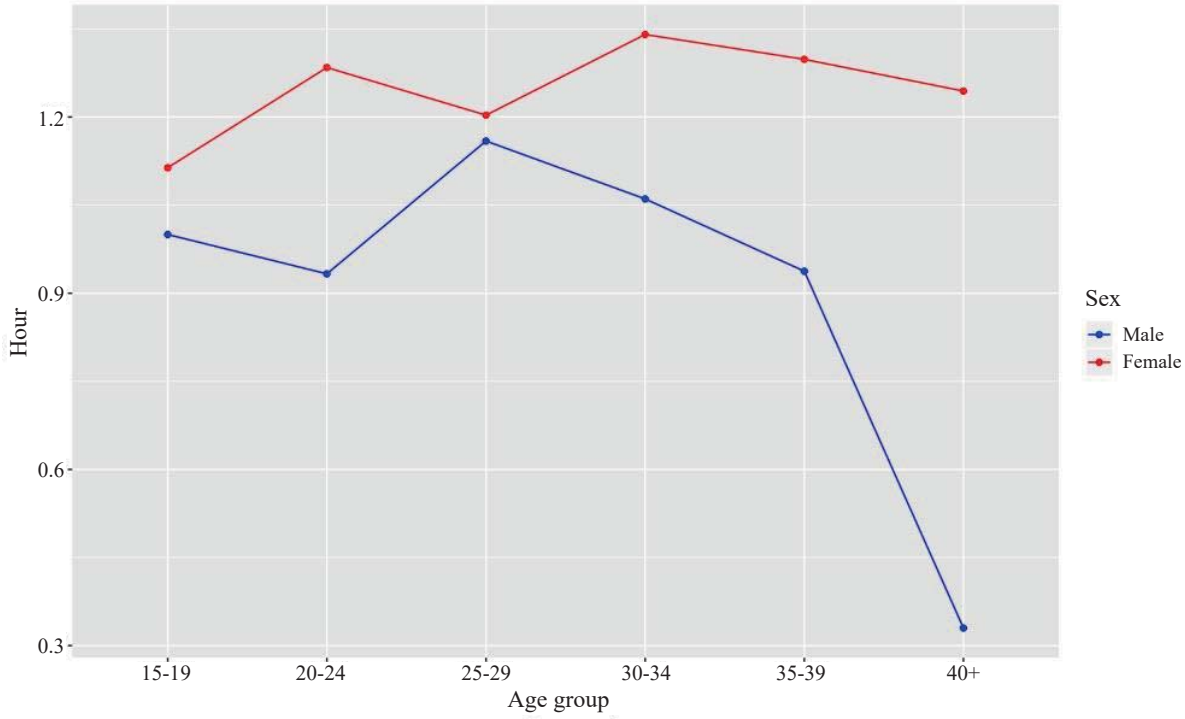


Figure 5.5 presents the average number of hours spent per day on household chores by age group and sex. The graph implicitly and explicitly offers two important pieces of information concerning availability for skills training and the role of gender in Cambodian society. First, women on average spend more time on household chores than men do, and starting from the age group of 20-24 years onward, female garment workers normally spend somewhere between 1.2 and 1.3 hours per day consistently doing housework. In contrast, older males tend to spend less and less time on this. Such a finding can be attributed to the Cambodian as well as other typical Asian cultures. It is likely that older males are married, and most household responsibilities have been transferred to their wives which explains the decreasing trend. As a result, in order to encourage females to attend skills training, encouraging males to contribute more to housework should be a priority, thereby reducing the burden of household responsibility which is currently foisted upon their wives. This statement is supported by a later findings, provided in the section covering skills development, which reveals that many workers do not want to attend any skills training simply because they are overwhelmed by household responsibilities.

5.2. Employment

This section provides a general picture concerning the employment situation and future plans for job changes. Basically, we sought to understand what the participants had done for a living before they entered the garment industry, whether they were exposed to any changes in their

roles or positions during their employment, and whether they wished to change their jobs if there was a possibility to do so. The reason was that we needed to understand their situation in order to consider what should be done next to help workers to grow and which factors or dimensions needed improvement for the Cambodian workforce to achieve higher productivity.

Figure 5.6: Percentage distribution of garment workers who had a job prior to joining a garment factory by age group

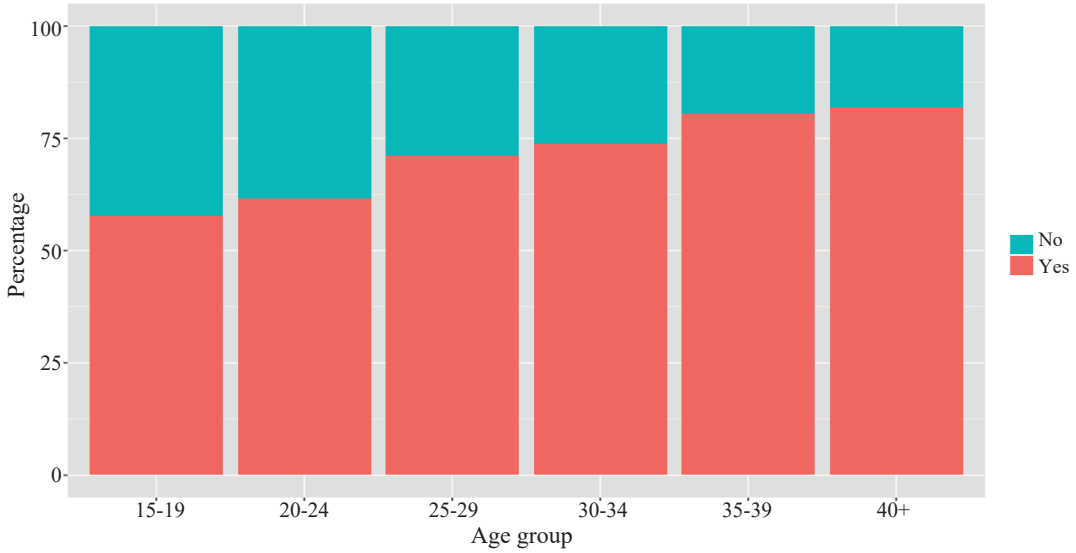


Figure 5.6 presents the percentage of the sample who had a job prior to working in the garment industry. It shows that, among the younger age group, approximately 40 percent of garment workers did not have any prior job; in other words, they jumped directly into clothes and textile enterprises following their migration from rural villages. For the elder age group, we found that this pattern seemed to be reversed which is completely understandable. To make it even clearer, we took yet another step to look at the types of job they had previously.

Figure 5.7: Percentage distribution of garment workers by gender and types of their prior occupation

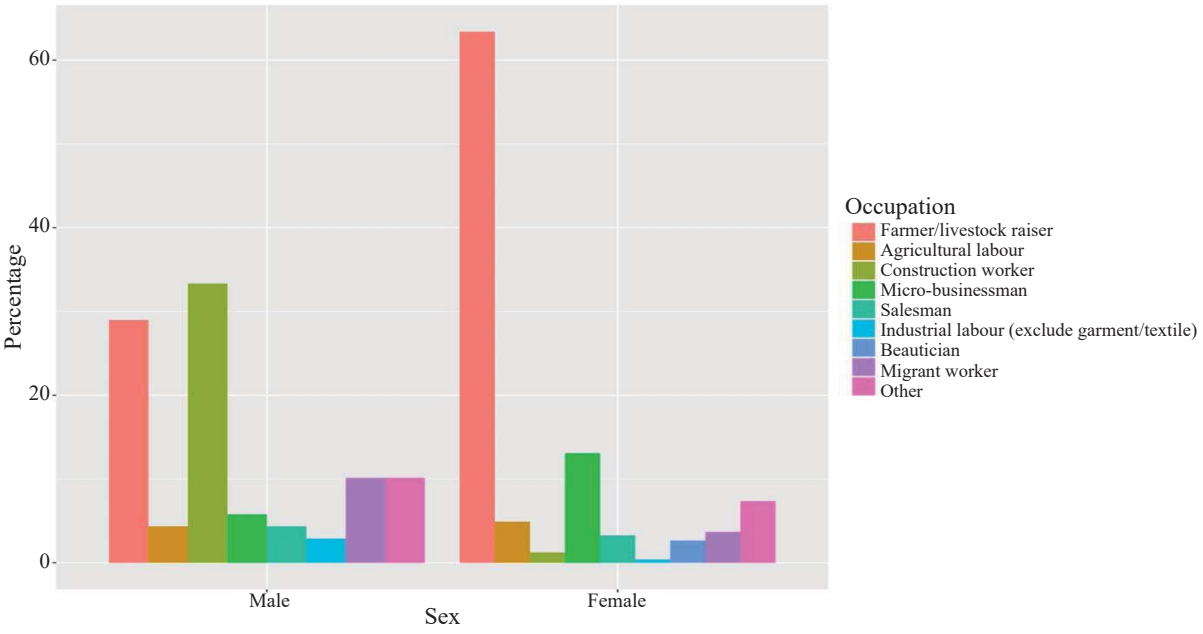


Figure 5.7 shows the percentage of workers according to their sex and type of occupation prior to joining garment factories. This graph reinforces our previous statement that most of them go directly into the garment industry after they migrate from their province of origin. To put it another way, for many employees in the clothing factories, garment work is their very first job following their migration. This is because, as depicted in the graph, most of the females were farmers in rural villages or who contributed to family micro-businesses while males were construction workers. It is worth mentioning that construction and real estate is one of the four key economic driving forces in Cambodia and is a booming business sector, particular in the capital city Phnom Penh and other coastal provinces of the country. It explains why construction work is considered as an alternative to a job in the garment industry for low-educated males.

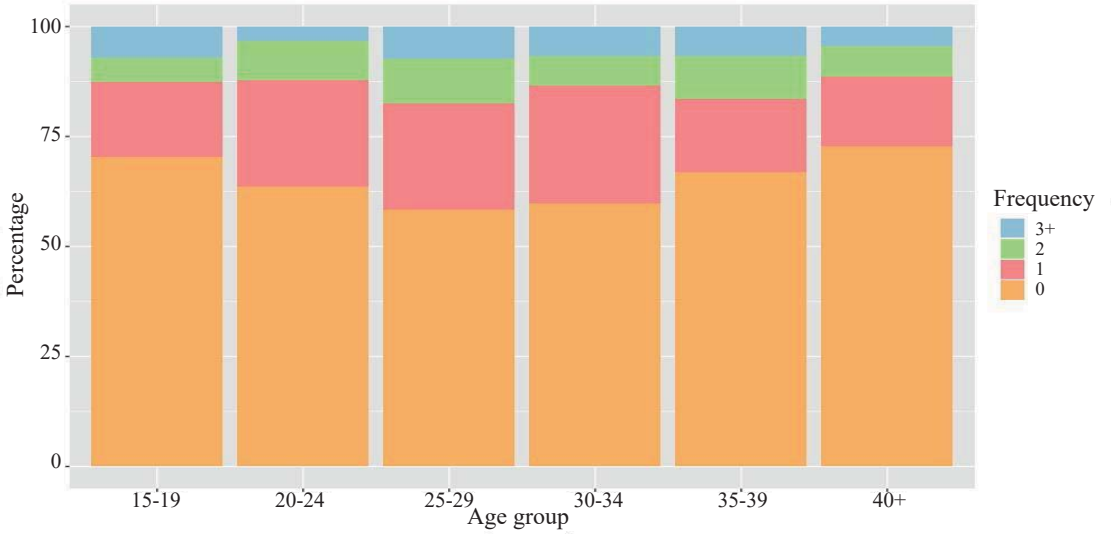
Table 5.2: Summary statistics of garment workers' working experience by age group

Age group	# Months in garment work	# Months in current position	Working hours per week
15-19	15.99	9.52	60.82
20-24	40.51	23.04	58.67
25-29	72.5	35.12	59.03
30-34	97.95	43.95	57.34
35-39	120.56	48.02	59.46
40+	132.5	57.93	59.02

Table 5.2 reveals information about garment employees' working experience by age group. As is normally expected, age has a strong correlation with working experience. If we are to plot the value, we will certainly see that the working duration in a garment factory increases linearly as the worker becomes older. But the most important point in the table that should be emphasised is the number of months in their current position. This number tells us that, on average, many people remain in the same position for a long period. Some have spent even more than three years doing the same job, and this means that they are rarely promoted or switch positions. This statement is also strongly substantiated by Figure 5.9 below. There are typically two reasons why workers cannot advance to a higher rank – either they are not qualified for promotion or there is no higher position available. The former is our focus, although on many occasions it is the nature of occupation itself that may hinder career advancement, especially those jobs that can be considered to be unskilled employment. To put it another way, many low-skilled jobs have very limited ranks to advance toward, regardless of what skills a worker has.

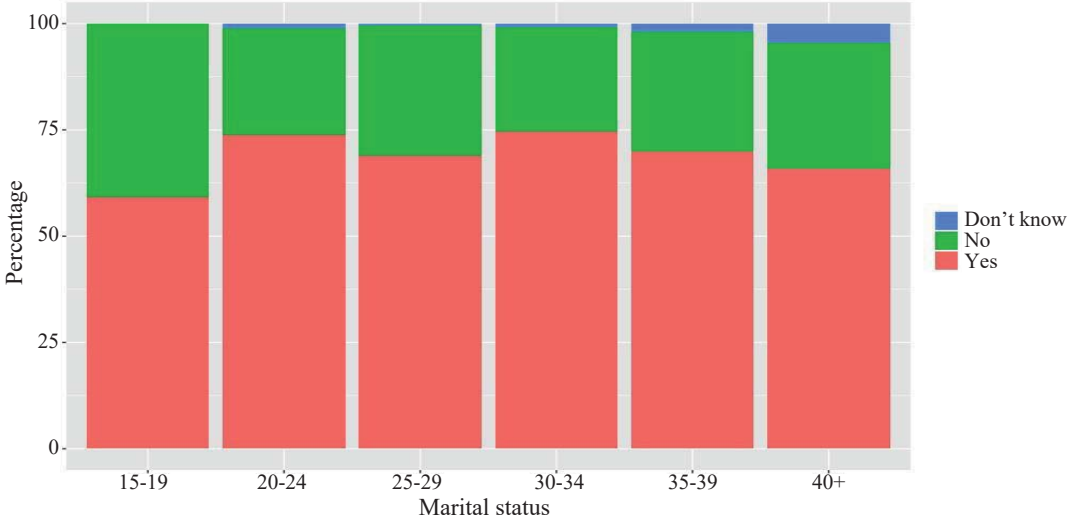
Turning to average working hours per week, there are no remarkable differences across age groups except for those aged between 30 and 34 years who tend to work roughly two hours less than the others per week. This finding is rather unusual and might be an areas for potential future research. Nevertheless, garment employees normally work 58.9 hours per week which means that they work approximately 10 hour per day, six days per week. Additionally, these figures are consistent across sexes which is not shown in the Table. But in spite of that, it is still within the range of appropriate working hours determined by Cambodian labour law.

Figure 5.8: Percentage distribution of garment workers by age group and number of times they have switched position



Presented in Figure 5.8 is the percentage distribution of garment workers by age group and the number of times they have switched positions. As we stated early, this rarely happens. Nevertheless, if we compare across age groups, there are more people aged between 20 and 34 years who have changed their position relative to those in the other age groups. It should be highlighted that even if they have not switched position, they may have changed employer multiple times in the past, but have always looked for the same role. The most popular position is sewer, which is currently held by 50 percent of workers, followed by 11 percent quality controller, 7.7 percent packager, 6.2 percent cutter, and 4.6 percent presser. The rest is a combination of 17 more positions available in the garment industry (authors' calculation).

Figure 5.9: Percentage distribution of garment workers who prefer to change their job by age group



We also probed further by asking them whether or not they would want to change their job if there were an opportunity to do so. Quite surprisingly a majority of them (almost 70 percent) said that they would, as illustrated in Figure 5.9. What is even more surprising is that most of them did not want to change to employment that was higher-paid or that offered better conditions: they just wanted a job in the garment factory which was located near their houses in the rural areas. That said, there were also garment workers who wanted to change their job for

financial reasons or because of job dissatisfaction. Figure 5.10 below highlights their reasons for wanting to change job. On top of that, we investigated the reasons why they did not want to change employment as shown in Figure 5.11.

Figure 5.10: Percentage distribution of garment workers by age group and reasons for preferring job change

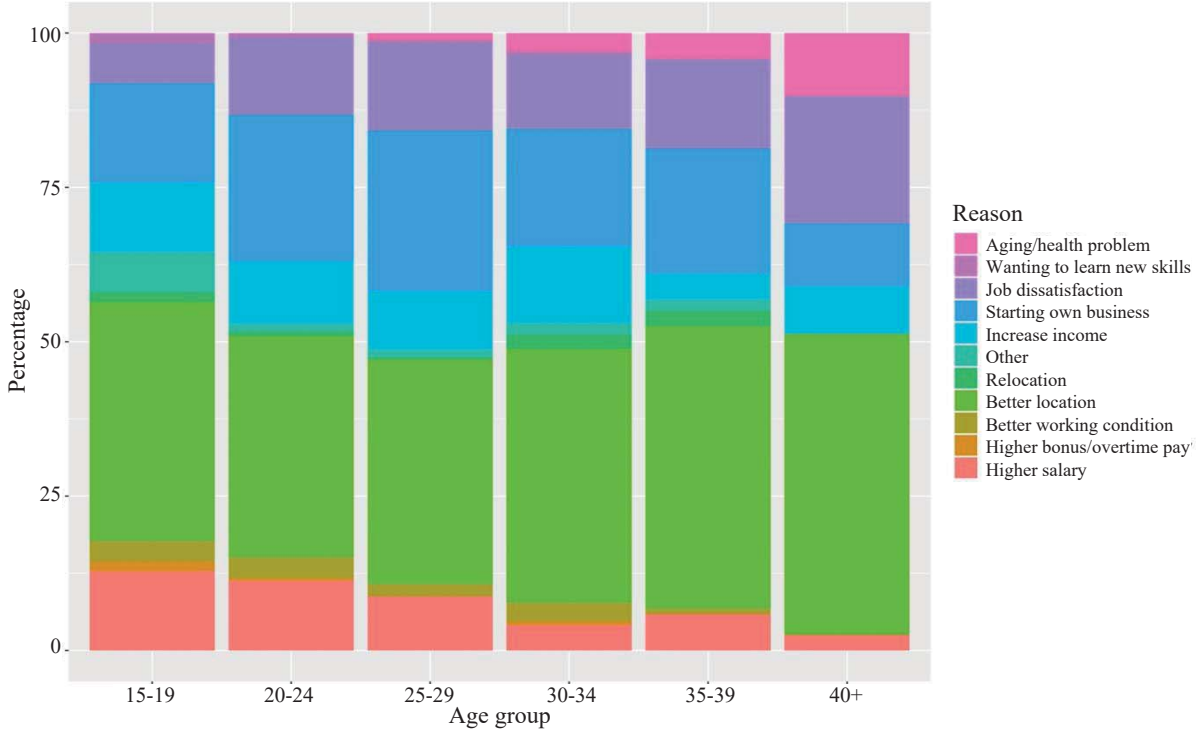


Figure 5.11: Percentage distribution of garment workers by age group and reasons for not preferring job change

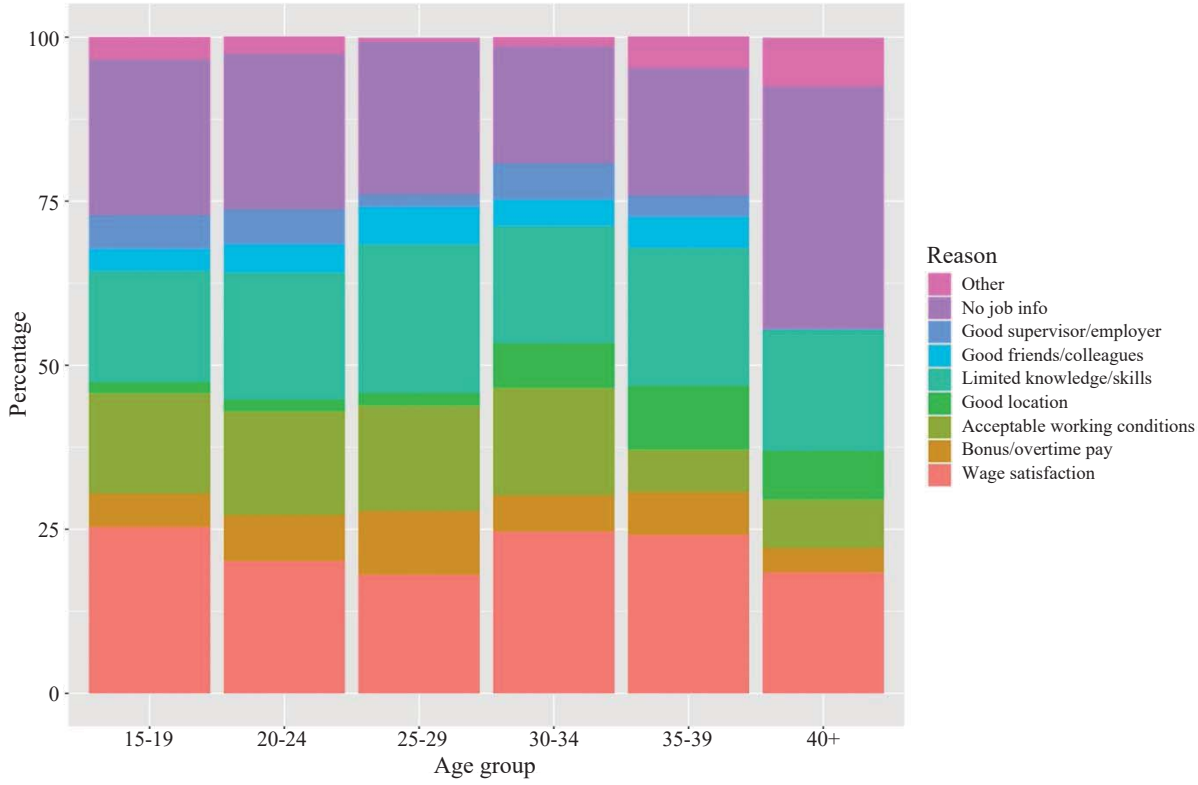


Figure 5.11 shows the percentage distribution of garment workers by age group and reasons for not wanting a job change. In other words, we examined by age group the reasons why some garment employees do not wish to change their job. Several positive factors that make workers want to stick with their current job are identified, but some negative determinants are also worth mentioning, namely those related to limited skills and abilities to look for alternative occupations. For approximately half of those who did not want to change job, the main reason was simply the lack of capacity to do so. This is so either because they did not have the skills necessary or that they did not have the ability to avail themselves of the information related to possible job prospects. From these results, we decided that these were primary challenges that should be carefully explored. Consequently, we would now shift our focus to understanding workers' skills and their abilities to access information via the internet. Doing this would also allow us to gain some insight into what types of skills they need, or do not need, the further training requirement now, how best we could provide it for them, and what would be the best and most cost-effective mechanism to widely circulate information about training opportunities if we were to initiate these in the future, given sufficient budget.

5.3. Skill possession

Since skill improvement is a mantra of modern economic development and social policy, this sub-section concentrates on examining workers' technical skill level (skills that they possess in order to perform their factory work), and skills for daily use, such as literacy, numeracy and basic ICT skills. The latter was used to measure their essential ability in making use of digital technologies and communications tools. By understanding their existing skills set, further initiatives to enhance their skills - either through up-skilling or re-skilling - could be considered to improve the current situation.

It is worth noting that this sub-section alone borrows a set of questions found in sections F and H from the OECD's Background Questionnaire of the Programme for the International Assessment of Adult Competencies (PIAAC) in order to better represent employee ability. The questionnaire is used consistently in the Surveys of Adult Skills in over 40 countries/economies. However, not all questions were adopted in ours. There was a total of 40 questions, and each individual was asked to give a ranking score from 1 (extremely poor or strongly disagree) to 5 (excellent or strongly agree). These instruments included workplace skills which are essential in the garment industry (22 variables), foreign languages (7 variables), and basic daily life skills (11 variables). It should be highlighted that the ranking is an individual's subjective perception, so it might not entirely reflect their genuine ability.

Figure 5.12 shows the subjective evaluation of workers' skills level. We asked the garment employees to assess their own skills out of those that are essential in garment industry. The result is extremely consistent with information on popular positions held by garment workers. Many of them, approximately 60 percent, rated their sewing skills as fairly high, followed by quality control and packaging, while only a small fraction of workers do so in respect of other skills. This can be the main reason why they stick with the same position, as they do not possess any of the other skills necessary to switch jobs. Before going further into the reasons why they do not have any other expertise within the clothes and footwear sector and what can be done to improve their situation, it should be highlighted that we did explore whether they had any other skills to carry out a task that was not related to the garment industry. However, none of them reported that they possessed other working skills, including foreign languages such as English, Chinese, Korean, Japanese, Thai or Vietnamese etc. We did, however, document some basic literacy, numeracy and internet skills.

Figure 5.12: Subjective evaluation of workers' own skills level

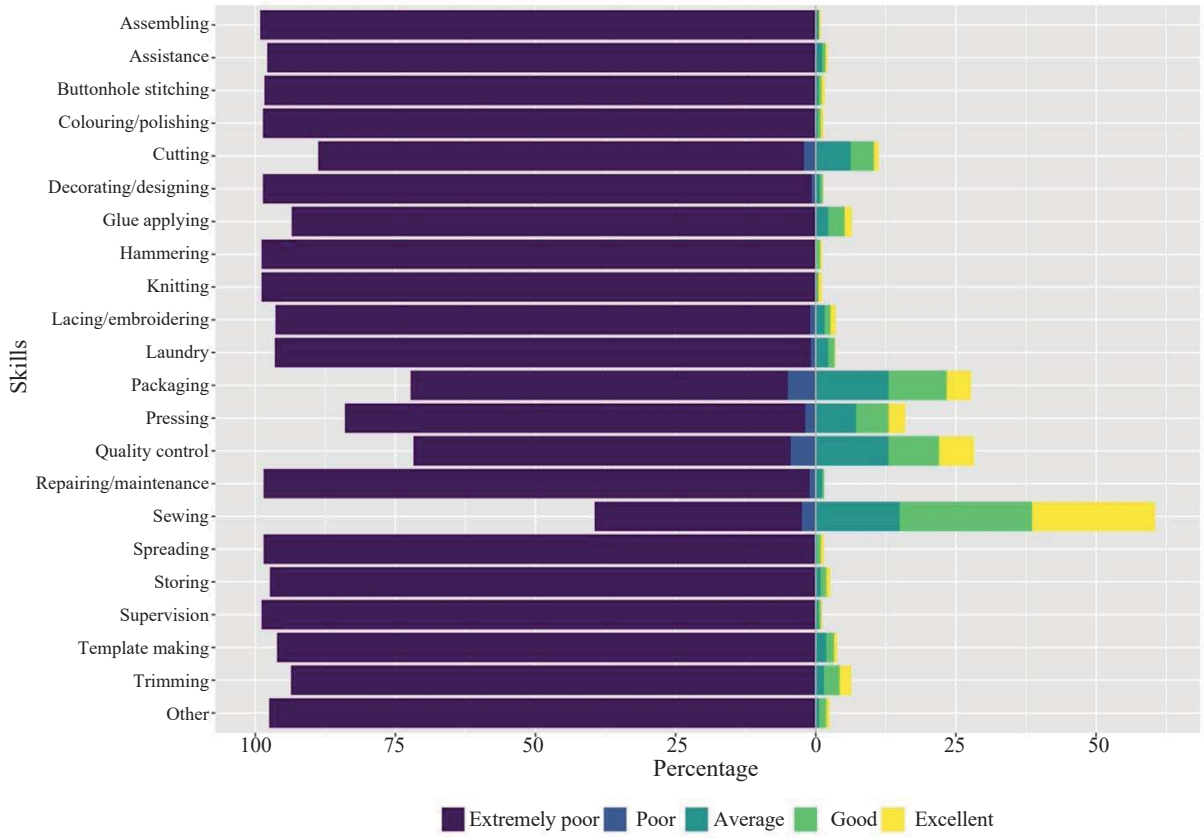


Figure 5.13: Subjective evaluation of workers' literacy, numeracy and ICT skills

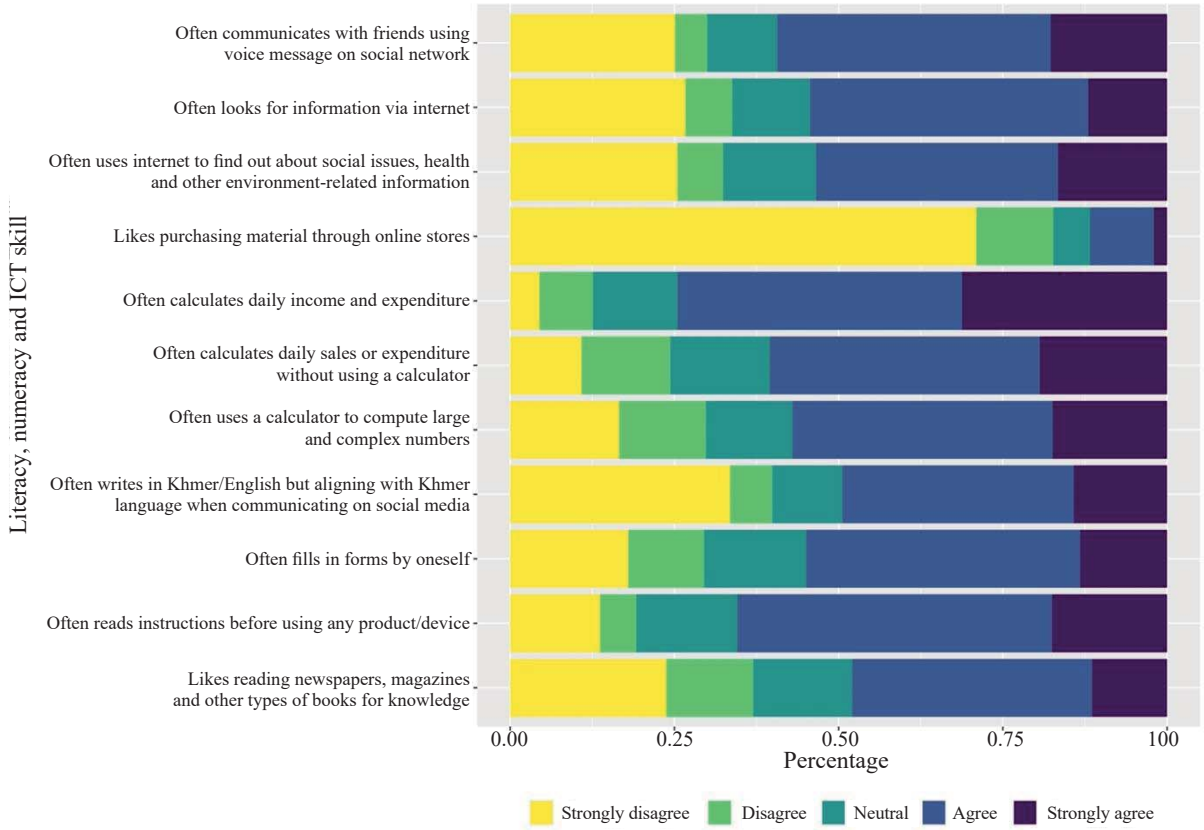


Figure 5.13 illustrates the percentage distribution of workers according to their daily life skills and the level of that skill. Those skills include literacy (reading and understanding simple sentences), numeracy (simple calculations used in daily life), and ICT (simple use of the internet and social networks). As depicted in the graph, a large majority of workers possess, to some extent, some basic literacy, numeracy and ICT skills. For example, they are able to read and write and can use social media, regardless of their purposes for using it. But, surprisingly, they hardly ever utilise the internet for online shopping activity. It is suspected that their ability to surf the internet is probably limited to certain popular platforms or websites such as Facebook or YouTube. It is worth noting that their potential ability to take advantage of what is offered on each platform might also differ from that of those who are more capable in terms of using computers and the internet.

Figure 5.14: Percentage distribution of garment workers by age group, smartphone ownership, and internet accessibility

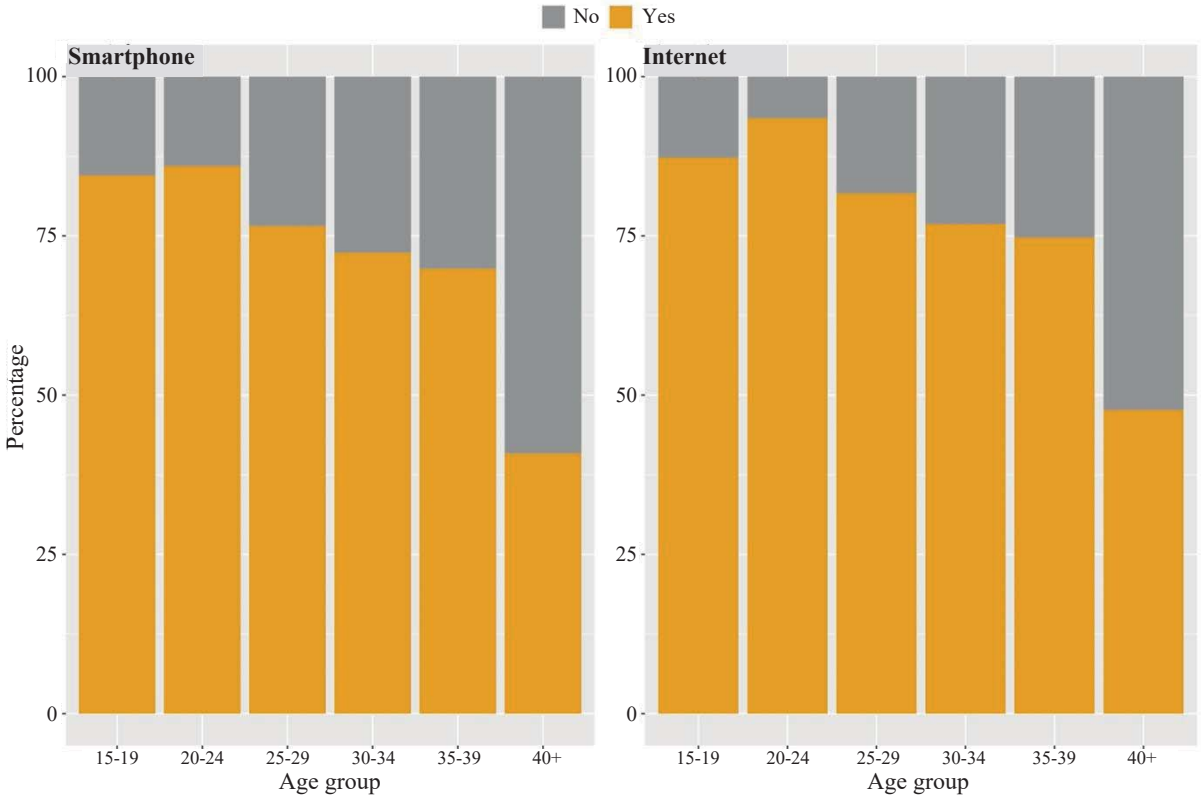
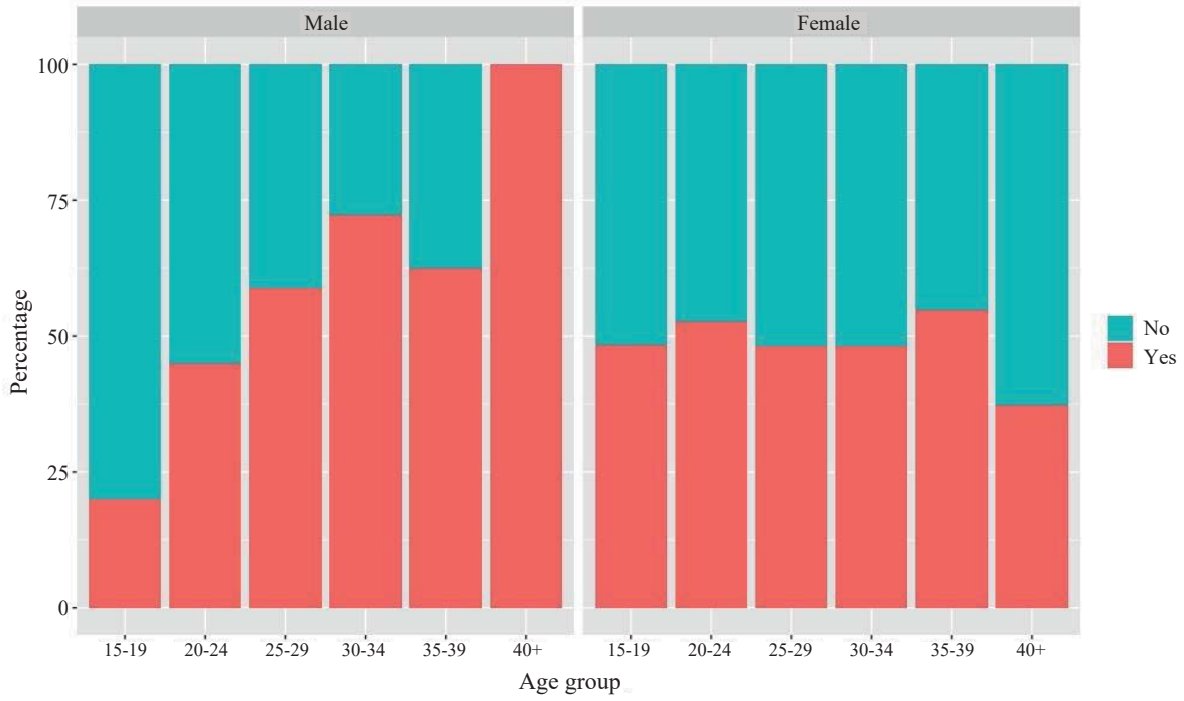


Figure 5.14 illustrates the percentage distribution of workers by age group, ownership of smart phones, and access to the internet. It can be clearly seen that the vast majority of them own at least some kind of smartphone and have access to the internet. The percentage of people having the former and the latter is very consistent because those who do not have access to the internet generally do not have any kind smartphone. To put it another way, garment workers normally surf the internet using their smartphone, and it is likely to be the only device they have that allows them to do so. This is based on responses to another question, which indicated that none of them appeared to have a tablet, smart TV or a computer. That said, many people in the older age group neither knew how to use a smartphone nor how to access the internet, whereas younger garment employees were more tech-savvy. Nevertheless, it was quite astonishing that many interviewees previously said that they did not know how to access information related to employment availability via the internet even though they did have sufficient knowledge and an instrument to do so.

5.4. Training: Access and demand

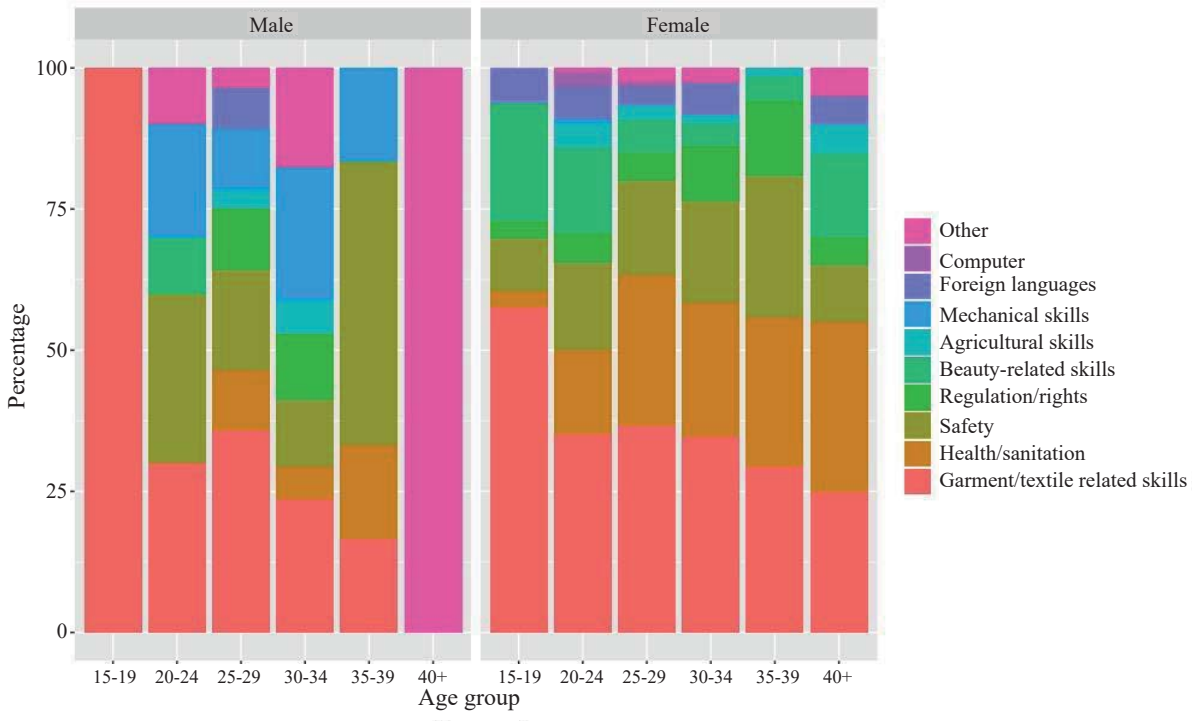
The introduction of the idea of training for workers is one of the key purposes of this study. This is not merely to promote the concept of life-long learning, but also to increase their opportunities to improve their earnings and quality of life. Moreover, the better the chance that workers have to access training, the better able they are to recognise the value and importance of workplace learning. This section captures their experiences in relation to training participation in the past. Specifically, we wanted to gather simple factual information about whether they had previously enjoyed access to training, what kind of training they had received and who provided this training.

Figure 5.15: Percentage distribution of garment workers by age group, sex and whether or not they have received previous training



The percentage distribution of workers who had received training at least once by age group and sex is shown in Figure 5.15. We simply asked them if they had acquired any training before, regardless of what type of training it was or who provided it. Surprisingly, a half had never received any training, especially females. A more startling fact was that the percentages of women who had or had not received any training were more-or-less equal across all age groups. This is unusual since we would typically expect age variables to play a role here, and older people have been exposed to more training opportunities than their younger peers. On the contrary, the situation is even worse for females in the oldest group. However, the conventional pattern is observed for males in the older categories who were more likely to have previously received training. It is worth noting that we did not ask them why or what factors had deterred them from participating in a training program in the past because we had also included questions asking them why they are not available or did not want to participate in future training. Moreover, it is likely that, whatever the factors that had prevented them from receiving training formerly, would also hinder their future involvement. That said, we did question those who had received training in the past what type of training it was and who provided.

Figure 5.16: Percentage distribution of garment workers who received previous training by age group, sex and type of training



Displayed in Figure 5.16 is the percentage distribution of garment workers who had received training by age group, sex and type of training. The majority of garment workers, especially those in the youngest age group, had received skills training which was mostly related to garments and textiles. Some instruction related to a variety of skills in respect of health/sanitation and safety procedures was also mentioned by the sample respondents. In addition, many middle-age males had received some kinds of training related to mechanical skills. From the Figure, it is unsure if they did so before or after they had started to work in the garment factory. However, for those who had received agricultural training, particularly women, it is more likely that they did so before they began to work as garment labourers. In other words, when they were still farmers at their area of origin.

Figure 5.17: Percentage distribution of training providers by type of institution

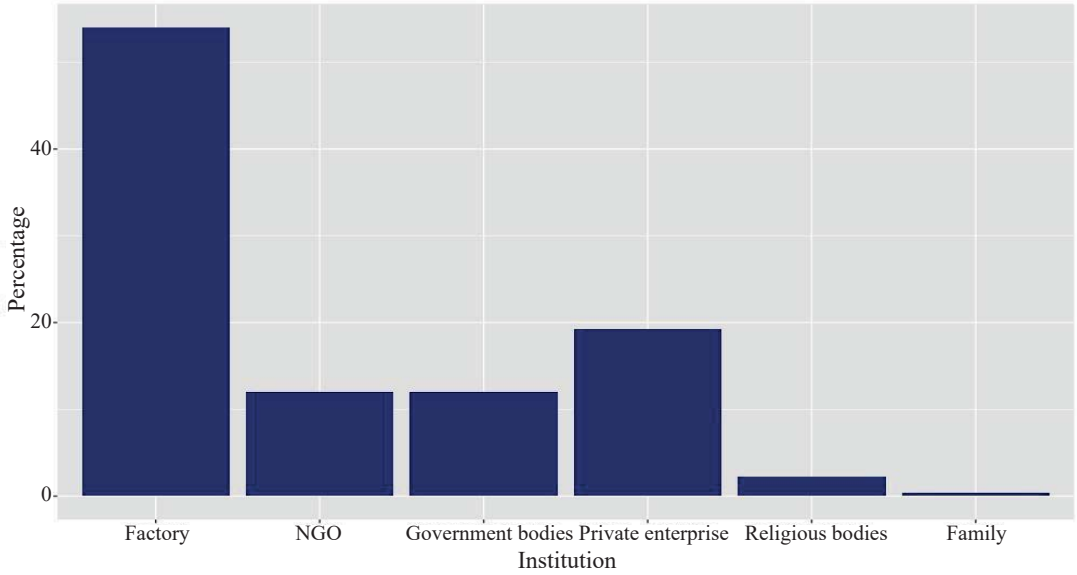


Figure 5.17 indicates the percentage of sample respondents who had received training according to the type of trainer. It should be emphasised that the private sector, both the factories/employers and private institutions, had played a crucial role in providing skill development: approximately 75 percent of garment workers who had received training previously had received it from this source. This category is followed by government/public institutions and Non-Governmental Organisations (NGOs) which might also include big international organisations like the ILO. It is important to note that garment workers might not be able to discern the differences between the former and the latter because most of the time training takes place inside the factories.

The prior participation of the garment workers in training offers us a rough idea of how skills development is being provided in the garment and apparel manufacturing industry. We can assume that the lack of skills necessary for better productivity is partly driven by the limited and ineffective content of training. In other words, the existing training provided by the factories is less likely to contribute to the enhancement of individual performance and workflow. That training is often offered for two common purposes: (1) to introduce workers to their specific roles; and (2) to raise their awareness in terms of sanitary and safety practices and regulations in the workplace. Next, we seek to understand their motivation in attending some of the kinds of training so that they can be more productive and possibly increase their current income. The insight we gain, however, stunned us.

Figure 5.18: Percentage distribution of garment workers who want to receive training for current jobs by age group

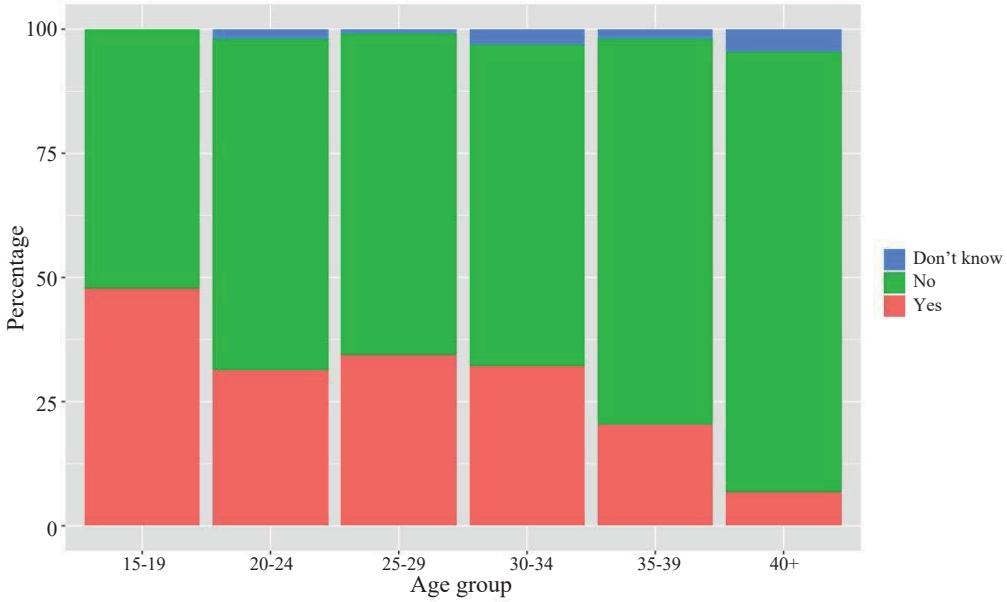
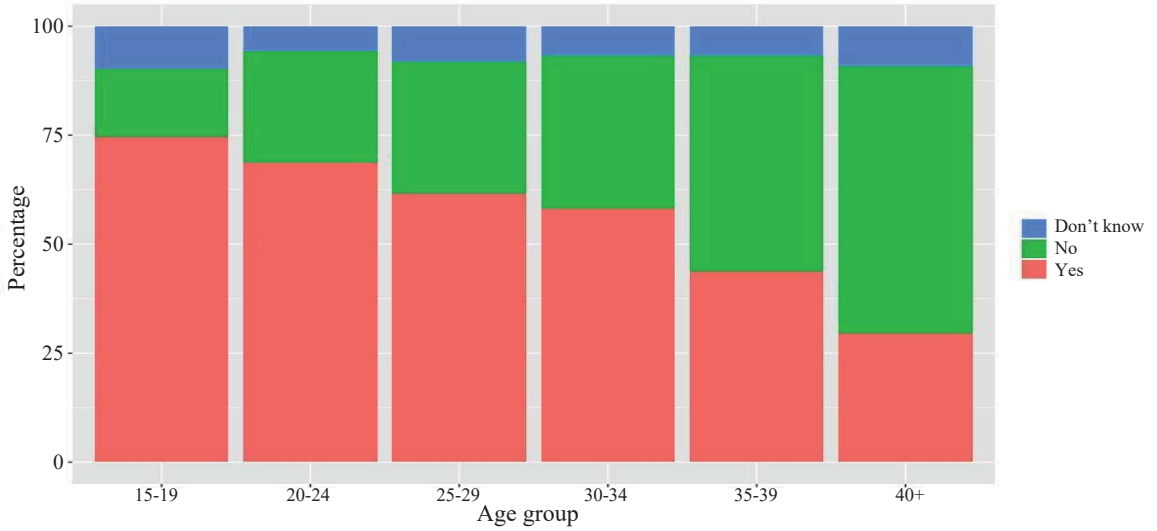


Figure 5.18 presents the percentage distribution of garment workers who wanted to receive training for their current job by age group. The graph shows the answer from all samples. At a younger age, many people would like to receive training to improve their skills for their current work although the majority actually say they do not. And this trend dramatically diminishes with age. At 40 years of age and older, only a small number of people say that they would want to learn a new skill. If we examine this information, which is of course distorted, we might think that it is rather uncommon and irrational that the vast majority of workers have no intention of learning a new skill, even it is for their own economic benefit (many garment factories follow a piece-rate payment system, so if a worker can produce more, they will surely get paid more money). Nevertheless, a better picture is developed when we asked them if they wanted to receive training to support their future jobs.

Figure 5.19: Percentage distribution of garment workers who want to learn new skills for future jobs by age group



The percentage of sample respondents who want to learn new skills for future jobs by age group is shown in Figure 5.19. By saying "future jobs", we refer to jobs besides those in the garment industry. The result is quite contradictory to the answer in the previous graph. Most garment workers wanted to learn some new skills for different employment/occupation possibilities. However, the tendency to do so still diminishes with age which is understandable. For example, almost 75 percent of those between 15 and 19 years of age said that they wanted to receive training compared with only 22 percent of those in the oldest age group. However, at least the majority of people younger than 40 years old would like to attend training so that they could use it to find future employment. Since our study concentrates on future skill development, we went on to ask the interviewees why they wanted, or did not want, to attend a training programme.

Figure 5.20: Percentage distribution of garment workers who do not want to learn new skills for future jobs by age group and reason

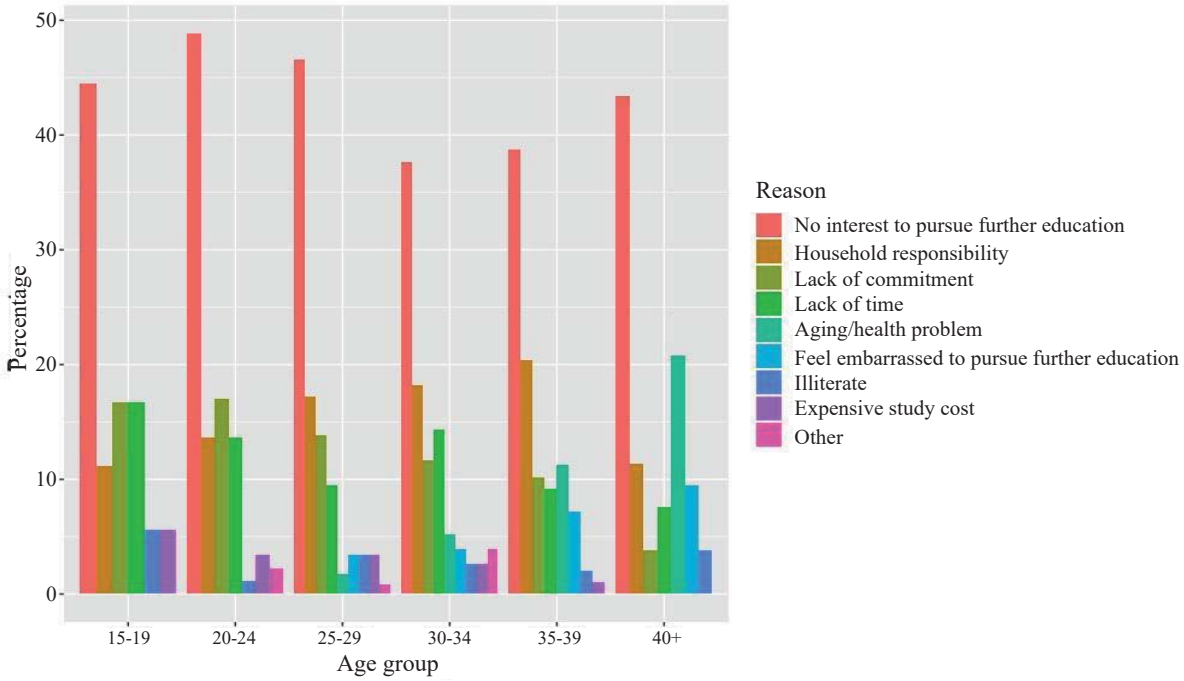


Figure 5.20 shows the reasons why workers do not want to learn new skills by age group. Among those who said they did not want to attend training, the vast majority were simply "not interested in pursuing more education/skill development" followed by lack of commitment and lack of time to go for training. Surprisingly, very few people referred to expensive tuition fees as the main reason because we expected that they might find it difficult to access the money for training considering the fact that some of them are struggling financially. However, being not interested in more skills training may be a result of their subjective skills evaluation. Generally speaking, they might have thought that they had reached their highest skills potential since many workers rated their sewing skills highly as indicated in the Figures in section 5.3. Therefore, even if they attended more training, this would not guarantee that they would be handsomely rewarded.

Figure 5.21: Percentage distribution of garment workers who want to learn new skills for future jobs by age group and reason

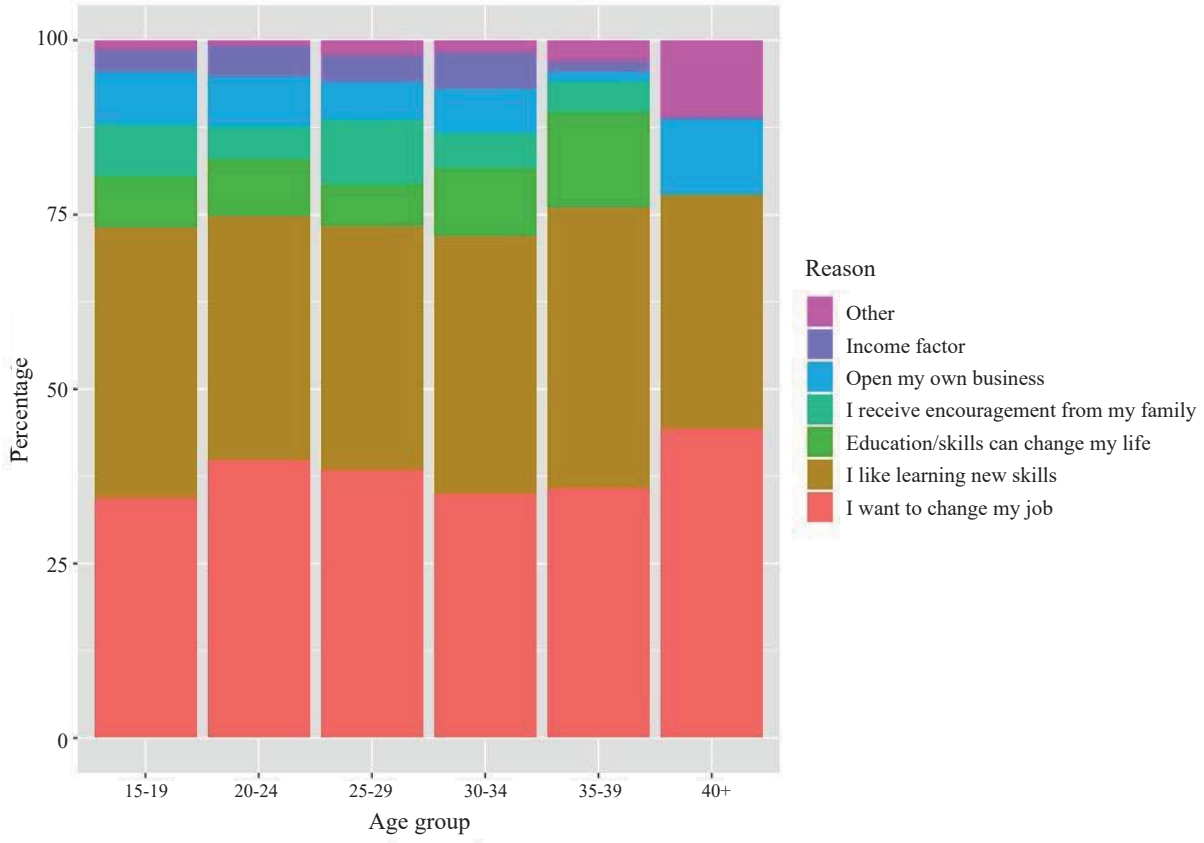


Figure 5.21 shows the percentage of sample respondents who wanted to learn new skills by age group and reason. Many people across all age groups wanted to learn a new skill merely because they intended to use it to find another job. The second reason given was rather related to individual enthusiasm and passion for learning something new, than driven by future job prospects. These two motivations made up a large proportion. Notably, some people wanted to learn a new skill with the hope that it would expose them to more opportunities or it would enable them to open their own microbusiness. The next graph (Figure 5.22), shows the results when we delved more deeply into understanding what type of skills they want to learn. This also told us what type of job they might seek. Moreover, we looked at the differences across sex and age group.

Figure 5.22: Percentage distribution of garment workers who want to learn new skills for future jobs by sex and type of skill

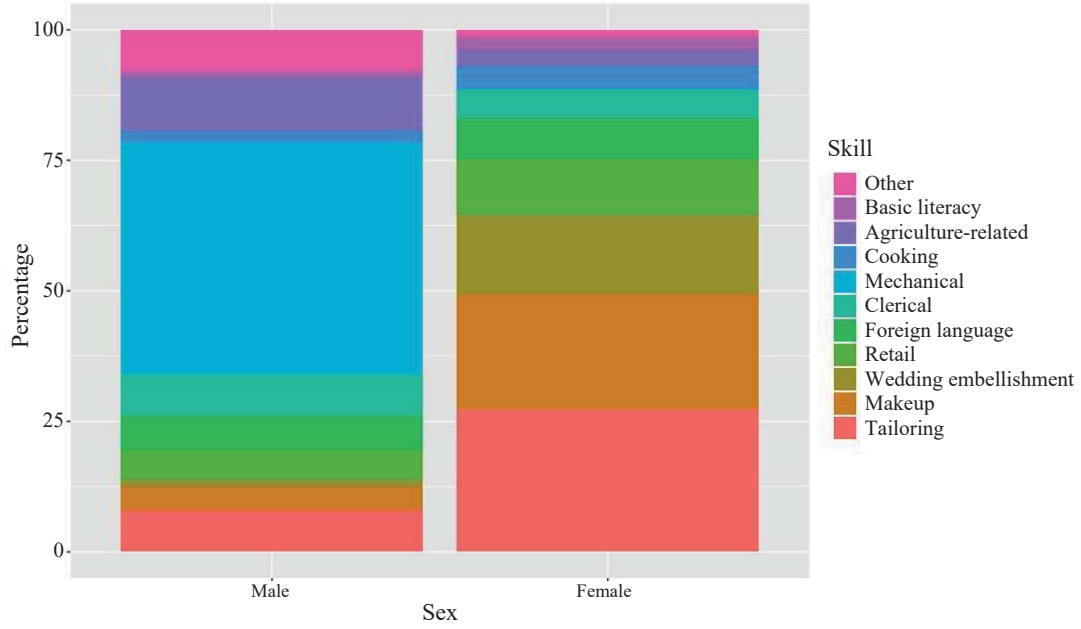
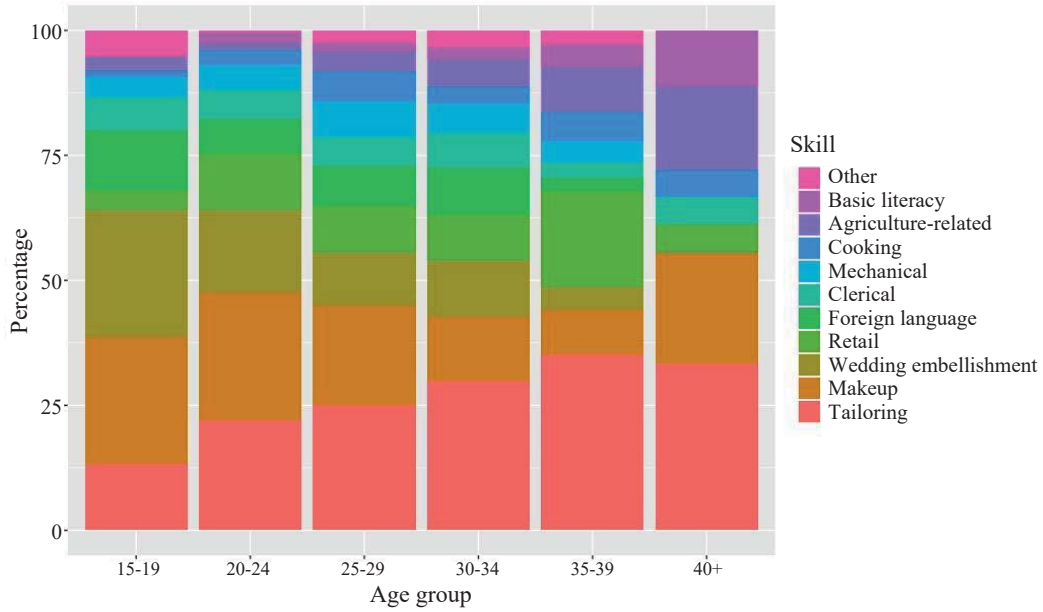


Figure 5.22 provides information about the percentage distribution of workers who wanted to learn new skills by sex and type of skill. As we would normally expect, males tended to like mechanical skills (roughly half) followed by agriculture-related skills at 10 percent. In contrast, woman preferred to learn something related to female-oriented professions such as tailoring (27 percent), makeup (23 percent), and wedding embellishments (13 percent). We also expected those who wanted to start small businesses to choose training relating to how to be an effective retailer. On the other hand, very few people wanted to advance their career to undertake supervisory roles or to upgrade themselves to semi-skilled workers through training such as leadership/management skills or computer/ technological literacy.

Figure 5.23: Percentage distribution of garment workers who want to learn new skills for future jobs by age group and type of skill



Finally, Figure 5.23 presents the percentages of sample respondents who wanted to learn new skills for future jobs by age group and type of skill. Among the older age groups, garment workers became more interested in learning tailoring and agriculture-related skills. The propensity for doing so also increased with age. Among younger age groups, many more people seemed to seek training programmes focusing on makeup and wedding embellishment. Since we did not conduct qualitative interviews, it is hard to understand the pattern and to deduce exactly why this might be the case, but it might have reflected the current situation of the Cambodian labour market, the structure of the economy, and an overview of the country's context itself.

6. Conclusion and recommendations

6.1. Concluding remarks

Cambodia has undergone significant political, social and economic transformation during the last four decades, but human capital development has remained a major challenge for the country to attain higher productivity and income status. Furthermore, in the context of the contemporary dynamic Fourth Industrial Revolution, in which skills that are currently possessed are deemed obsolete in just a matter of years, a workforce with state-of-the-art competencies is in increasingly high demand: and so are skills training and the insight that promotes or generates those skills. This study aims to raise fundamental awareness of issues concerning the skills development of garment workers, the vast majority of whom are females, making a significant contribution to the Cambodian manufacturing industry and hence the economy as a whole.

From the results of these survey results based on responses from 787 individual garment employees from eight provinces including Phnom Penh, the capital city of Cambodia, we can conclude that most workers are not very well-equipped with workplace skills, or with the competencies necessary for personal and career growth. In addition, many of them received very little skills training that might be valuable for employability in the industrial sector prior to their recruitment. More often than not, they do not wish to receive training to improve their skills relevant to current employment either. Their abilities to utilise rich online content is also limited. These factors are, therefore, likely to hinder individual improvement in labour productivity and hence to negatively affect their tenure in the long run given the current situation of rapid increases in wages. That said, most of them wish to have skills training only if it focuses on developing other competencies that are not related to garment employment. In particular, they would prefer to learn a new set of skills relevant to small family businesses. In short, to be able to answer the research question we posed at the beginning (Do garment workers want to attend skills training?) we need to specify the purpose of the training in respect of its effectiveness in improving productivity in their current employment (the answer to which is mostly a "No") or in improving skills that increase their employability, and that will enable these garment workers to easily find a job in another sector (the answer to which is "Yes").

Nevertheless, given their traditional perception of human capital development in general and their weak intention and commitment to participation in training, which increases with age, it might also be difficult to promote voluntary industrial skills training for current employment. It is also uncertain whether or not there are financial incentives or better career pathways to encourage workers to gain a new set of market-driven skills. We can also assume that there is a big challenge in respect of organisational structures and professional growth that does not incentivise better-skilled employees. This notion can be substantiated by two empirical studies. First, the latest Employer Skills Need Survey in 2017 indicates a high turnover rate which is

caused by problems in retaining current staff. Second, many workers themselves have shown a high preference for switching to self-employment or small family businesses, and this often means that they do not see growth opportunities in the garment industry. It should also be highlighted that individual time availability can be another constraint if such training is to be conducted during off-hours which tends to be wearisome, as garment workers have already spent roughly 60 hours per week at work.

6.2. Policy implications

With an intention to promote skills development for workers in the garment sector, we would propose the following policy implications concentrating on two different areas: (1) Training to increase productivity, and (2) Training to increase employability.

Training for an increase in productivity

As training is imperative to help individual workers further develop their skills and to move firms to a higher level, the first and fundamental task that should be considered is to identify specific industrial training needs. Findings demonstrate that workers have a low interest in the contents of existing training programmes (i.e., basic cutting and sewing and safety practice), and an alternative might be more beneficial to both them and the firms. In India, soft skills training for garment worker supervisors like leadership, relationship management, effective time allocation, and communication to improve managerial quality have proven very useful to enhance the productivity of workers as a whole (Adhvaryu, Nyshadham and Tamayo 2019), and thus relevant stakeholders in the Cambodian context could also consider this as a possible solution. Learning by trial and error is expected though. And for that, training providers like TVET schools should work closely with firms to design training courses that incorporate more soft skills, including those covering how to learn to learn. For a general guideline on how to provide inclusive training that will benefit all parties involved, one can always learn from a successful pilot project conducted in Bangladesh (International Labour Organization 2013). This study gives an overview of what should and should not be done as well as lessons learned at different stages starting from identifying skills training courses needed to impact evaluation.

It is also suggested that training should be conducted at the workplace during working hours at the expense of a temporary small loss of productivity. In the long term, however, profit, through increased labour output, would exceed the cost, which justifies early investment. Firms should also create a system of financial incentives and/or promotion to motivate workers to attend training and to apply the skills they gain from such training to boost their individual productivity.

The government can also play a role here to ensure the implementation of workplace training which is required by law. However, such a mandate may not be enforced well enough without the authorities themselves advocating the importance of skills training using real life examples of successful firms to encourage employers to emulate. Generally speaking, a good instance of such a case is the training grant programme for manufacturing firms in Michigan, United States, in 1988 and 1989, which has been used over the years in the world of academia to demonstrate the significantly positive effects of firm-lead skills development for individual employees on firm-level productivity (Holzer *et al*. 1993). It should be highlighted that we are by no means advocating that the government should not invest in training. But, instead, we are suggesting that the government should diversify investment in training into developing other higher valued-added skills besides those that can be used only in the garment and textile industry.

Training in marketable skills

It is worth emphasising that our findings tend to overwhelmingly support the ideas that credit constraints are not a major challenge in skills training, at least in the context of the garment industry. But rather that the training content itself, which concentrates on agriculture rather than industrial employment, seems to be a problem. We are unsure if other types of skills are available for training, but if they truly are, then there might be an issue of imperfect information dissemination. It means that information concerning available topics for training are not widely accessible, and that individuals have absolutely no idea what topics are available and where to go to undertake training. If this is the case, a solution might be to utilise social media such as Facebook and Telegram to spread information, as most garment workers own a smartphone and frequently surf the internet, and they will be able to take advantage of that. There should be incentives to encourage workers to undergo training with specific hard skills which are valuable to industrial employment rather than to the informal economy to support the government's economic diversification policies. Which kinds of industrial skills workers should specifically be trained in can be a topic for future research, but some insights into what skills Cambodian adults generally have can be derived from some kind of labour force survey. That said, these skills should be aligned with the direction of recent economic and industrial development policies, otherwise they will not be attractive enough or meet the market demand. Consequently, there will be very few potential employers to hire people with such skills.

6.3. Future research

There seems to be a challenge in the sharing of information about available and funded skills training programmes and the prospective benefits that can be derived from such training, because it is rather counterintuitive that garment workers do not generally wish to attend skills development training to increase their output, and hence their salary. We can only assume that they are likely to fail to see the benefit of doing so due to incomplete information, which is a form of market failure commonly found in developing countries. Therefore, a potential area for research revolves around how to bridge the gap between trainers or training providers and trainees. Research can be conducted with the objective of understanding how best the information about available skills training can be circulated cost-effectively, so that many more people will utilise the existing scholarship and training services. In addition, future research should also focus on generating knowledge about the mechanisms through which the government or relevant authorities can provide effective career and training guidance or counselling, so that individual workers can foresee the benefits from joining such capacity building programmes. For that, researchers might need to conduct a pilot project to test a few incentivised approaches that will encourage voluntary participation from low-skilled workers, especially those employed in the manufacturing industry. Following such study, some evidence-based policy recommendations can be suggested.

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