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Employment and Empowerment

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Cambodia's Skill Gap: An Overview

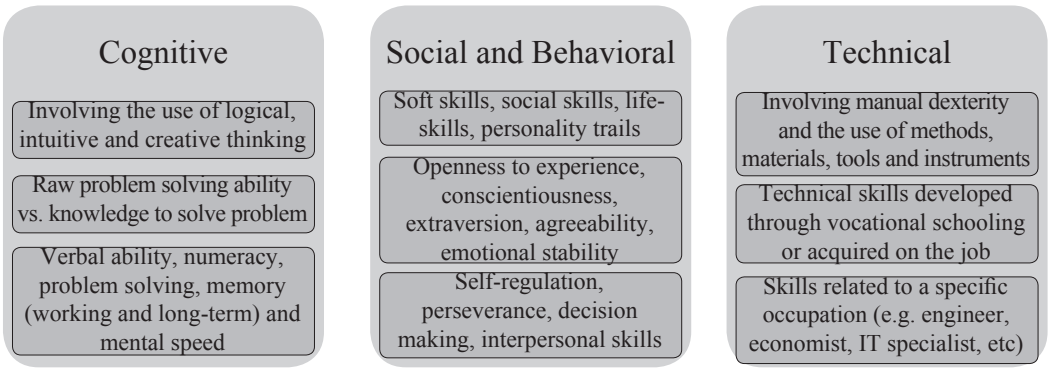
2.1 Skill: A multidimensional concept

Skill is commonly understood as the ability to do something well. Definitions that are more formal largely echo this idea. "Skills are capacities to act" (Heckman and Mosso 2014, 6). Skill, therefore, is a multidimensional concept. "Skills are multiple in nature and encompass cognition, personality, preference parameters, as well as health" (Heckman and Mosso 2014, 6).

Skills are also largely context-specific. What are considered highly relevant skills for one profession may not even meet the minimum standards expected in other professions. Within the same profession too, the magnitude as well as the nature of skills required in a low-income country or a poor society may not be the same as that needed in a middle-income or a rich country. Even within a country, educational institutions (one of the major developers of various kinds of skills) may be satisfied with the skills they impart to youth, but employers may find those youth lacking in workplace skills—the well known disconnect between education and work.

Building on this basic definition, the World Bank uses a three-dimensional concept of skill that goes beyond mere educational attainment to cover much broader human capital dimensions (World Bank 2013, 8). A typical individual or worker's skills are divided into three broad components: cognitive, socio-emotional and behavioural, and technical (Figure 2.1). All three sets of skills are required in varying degrees for individuals to develop the capacities to act, or for workers to do what they are supposed to do in the workplace.

Figure 2.1: A three-dimensional concept of skill



Source: World Bank 2013

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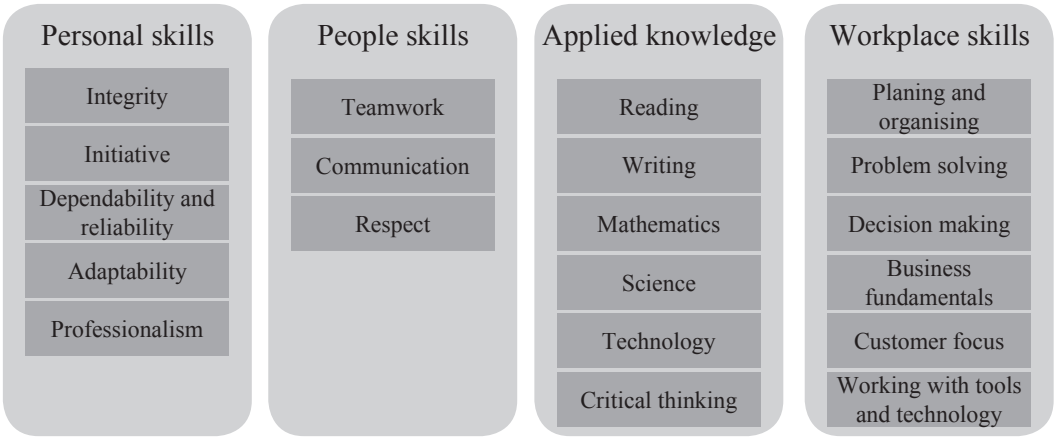
Cognitive skills are the ability to understand complex ideas, adapt effectively to the environment, learn from experience, engage in various forms of reasoning, and take corrective actions to resolve problems. Literacy, both language and computer/IT literacy, and numeracy are part of cognitive skills. Socio-emotional skills, also referred to as behavioural or soft skills, relate to traits embracing many domains such as social, emotional, interpersonal, behavioural and attitudinal. These include openness to new experiences, conscientiousness, extraversion, agreeability and emotional stability.

Technical skills range from manual dexterity for using complex tools and instruments to more specialised knowledge in various fields such as science, engineering, medicine, economics, finance, accounting, sociology and political science (World Bank 2013, 15). Technical skills, the acquisition of which is enabled by a solid foundation of generic (cognitive and socio-emotional) skills, can be divided into job-relevant and job-specific skills (Madhur 2014). Combined with cognitive and socio-emotional skills, job-relevant technical skills contribute to a person's employability. Yet, once hired, employees may have to acquire job-specific skills so that they can perform their tasks well and fulfill their job responsibilities. Job-relevant skills enable employees to do well in their work but are not a substitute for job-specific skills.

Figure 2.2: A taxonomy of employability skills



Source: National Network of Business and Industry Associations (www.actfdn.org/wp-content/uploads/2014/08/National-Network_EmployabilitySkills_July2014.pdf. Last updated 22 July 2014)

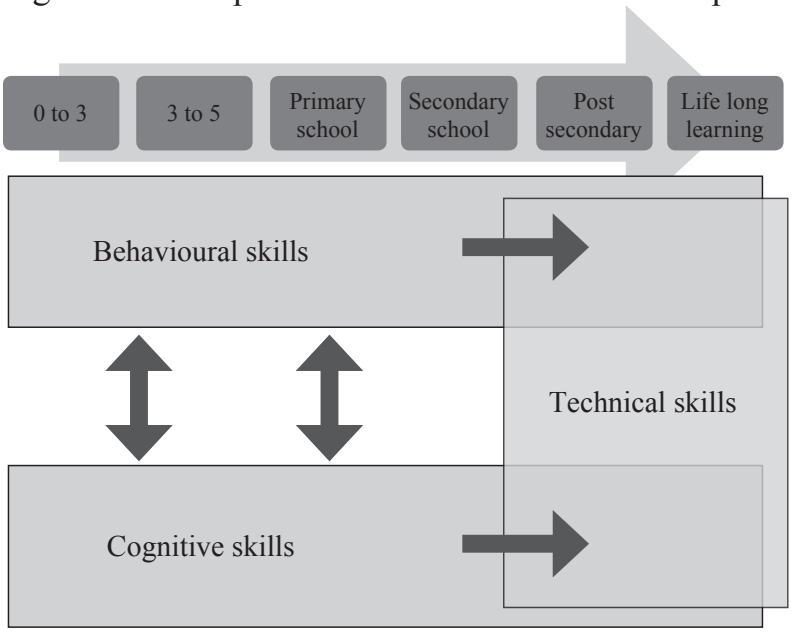
Another somewhat similar definition of skills used by the United States (US) National Network of Business and Industry Associations that places a special focus on youth employability comes up with a four-way topology of skills—personal skills, people skills, applied knowledge and workplace skills (Figure 2.2). This was compiled in close consultation with US business organisations representing employers from major economic sectors. Except

for some minor differences, the first two components of the skills in this framework broadly correspond to the soft skills of the World Bank definition. Similarly, the last two components together correspond to the cognitive and technical skills components of the World Bank definition.

A taxonomy developed for UNESCO's *Education for All Global Monitoring Report 2012* puts forward a similar list of skill sets that employers around the world look for in prospective employees, although some of the skills listed in Figure 2.2 are subsumed in a cross-cutting category called "cultural skills" (Aring 2012).

Viewed from the perspective of these definitions, skill development starts from birth (or even from conception) and continues through early childhood, primary and secondary education all the way to vocational and tertiary education and on-the-job training and learning (World Bank 2013, 17)**.** A country's skill development strategy should therefore take a holistic life-span approach. Certain skills are easier to acquire in early life, whereas other skills develop later (Figure 2.3).

Figure 2.3: The process of skill formation—a simplified model



Source: World Bank 2013

A growing volume of multidisciplinary work encompassing economics, epidemiology and psychology comes to one key conclusion: cognitive skills and, to some extent, socio-emotional skills begin to form very early in life (Heckman and Mosso 2014). Research highlights the critical importance of early childhood development to be able to make the most of one's abilities (World Bank 2013, 7). Even behavioural skills begin to form in the early years and continue to evolve throughout adulthood.

Technical skills are acquired in the later stages of life. These are acquired mostly through college- and university-level technical and vocational education and training (TVET) and on-the-job learning, although some basic technical skills are learned in earlier stages of education. The process of technical skill acquisition builds on, and interacts with, the process of cognitive and behavioural skill accumulation that begins much earlier in life (World Bank 2013, 17).

Acquisition of a core set of skills—cognitive, soft and technical—endows young people with job-relevant skills that allow jobseekers to find appropriate employment in the labour market. These skills are the main entry-ticket to the labour market. Imparting job-relevant skills is the responsibility of a country's education system. Note, however, that employers are still required to impart job-specific skills—skills that are unique to a particular firm or the industry in which the firm is operating—to their employees through both pre-employment and in-service training and orientation (Madhur 2014).

The fact that cognitive and behavioural skills begin to form from conception, however, does not mean that these skills are genetically determined. "There is mounting evidence that gene expression is itself mediated by environments" (Heckman and Mosso 2014, 7). That the environment is critical for skill formation gives hope to people, societies and countries: those who do not have these skills today can build them over time, as the environment can be changed through well designed and effectively implemented public policies, programmes and projects.

Against the backdrop of skill formation and development analytics, this chapter provides an overview of the emerging skill gaps in Cambodia. It analyses the skill shortages faced by potential employers across a number of industrial and service sectors (Section 2.2), the skill gaps faced by the tourism industry—a major source of growth and foreign exchange earnings for the country (Section 2.3), the likely impact of the emerging skill gaps on the country's growth and development (Section 2.4), and the country's skill gap in a global context (Section 2.5). The main conclusions are summarised in Section 2.6.

2.2 Cambodia's emerging skill gap

There is an increasing consensus that Cambodia is facing a growing gap between the skills that industries and businesses require and what young people in education institutions, whether academic or vocational training, acquire (CDRI 2013, 2014; Madhur 2014; World Bank 2010, 2012). The main sources of information on the country's skill gaps and shortages are enterprise/employer surveys. The reliability of these survey results,

however, very much depends on the sampling method (including the representativeness of the sample), questionnaire design and the response rate of the target respondents. It is important to keep these potential limitations of employer surveys in mind with a view to arriving at strong conclusions on the extent and nature of critical skill gaps. That said, employer-survey-based assessments of skill gaps are common in most countries. Indeed, such surveys are often the only source of information for identifying and measuring skill gaps. Overall, they do give a broad indication, if not a precise measure, of the extent and nature of skill gaps.

In a 2011 survey of 78 employers done by a local human resources services firm, HR Inc. (Cambodia), 73 percent of employers reported that university graduates in Cambodia do not have the right skills (HRINC 2011 cited in World Bank 2012, 1). More than 62 percent of the employers also noted that vocational training graduates do not have the right skills either. In comparison, while only 12 percent said that there are not enough university graduates, as many as 38 percent suggested that there are too few vocational training graduates. It seems that skill mismatches are greater for university than for TVET graduates. Moreover, 31 percent of employers pointed out that it is difficult to train or upgrade the skills of their existing workforce, reflecting the low quality of available training programmes as well as the weak foundational skills of their employees (World Bank 2012, 8). These findings strongly suggest that Cambodia's education system is not imparting to its youth appropriate employability skills. It is not just a question of the quality of the graduate supply or the skills mismatches but also that jobseekers lack core foundational skills without which it can be difficult to strengthen workplace skills through on-the-job training (See Box 2.1 for a discussion of skill gaps at the higher end of the skills spectrum).

Similar conclusions emerge from a more recent survey sponsored by the International Labour Organization (ILO) of employers and business leaders from seven ASEAN countries—Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines and Singapore (EMC 2014). The proportion of survey respondents who said they "agree" ("agree plus strongly agree", in the terminology of the questionnaires) that the skills of graduates from different levels of education match enterprise needs was the second lowest for Cambodia, ahead of only Myanmar. For Cambodia, employer responses indicated that only about 20 percent of high school graduates and about 40 percent of university and TVET graduates had skills that match enterprise needs (EMC 2014, 13-16). Moreover, only about 10 percent of employers rated the quality of public education providers in Cambodia as "good or excellent". Again, only Myanmar had a lower figure, and the percentage of respondents rating the quality of private education providers as "good

or excellent" was higher at nearly 40 percent, better only than that for Laos (EMC 2014, 16-17).

Box 2.1: Cambodia's high-end skill gaps

Within this overall skill shortage scenario, Cambodia's skill gaps in high-skill occupations such as managers, engineers and doctors are well documented. In the 2011 HRINC survey, the sharpest skill shortages (and the ones that employers perceive as the greatest constraint) are in senior management: over 70 percent of employers reported a major shortage in management skills (HRINC 2011 cited in World Bank 2012, 9).

Another recent study estimates that if Cambodia wants to attract foreign direct investment in the range of, say, 6-8 percent of GDP between now and 2020, it would need about 35,000 engineers and another 46,000 technicians by 2018 (JICA 2012). The current as well as the projected supply of these personnel would fall far short of these figures.

It is common knowledge that Cambodia faces a serious shortage of qualified medical doctors. Cambodia has 2.3 physicians per 10,000 population (Campbell et al. 2013). This ratio of doctors is less than half the average figure for ASEAN countries; indeed it is the lowest (Kanchanachitra et al. 2011).

These skill shortages at the higher end of the skills spectrum are partly due to the low enrolments for these specialised courses. In 2009/10, among the students enrolled for graduate degrees in the country, about 10 percent enrolled for business management, another 6 percent for medicine, nursing and pharmacology, about 6 percent for computer science, less than 3 percent for engineering, 1.4 percent for science and 1.3 percent for mathematics (World Bank 2012). The inadequate quality of education that even these small numbers of graduates receive is another major problem leading to these skill gaps. For example, some private sector employers note that an engineer with a graduate degree from Cambodia has only skills comparable to a first or second year engineering student in some of the neighbouring countries (CDRI 2014).

That said, the country's unique historical context in which almost the entire education system including educated people were destroyed during the 1975-79 Khmer Rouge regime should be factored in when looking at the skill gaps, especially at the higher end of the skills spectrum. Rebuilding the education system and the skills of the workforce, therefore, has been a monumental task.

In addition to the near-complete destruction of educational hardware—schools, colleges and other educational buildings—during 1975-79, 75 percent of tertiary teachers and 96 percent of university students were killed (CDRI 2013, 34). In a similar vein, Cambodia had about 1000 qualified medical doctors by the mid-1970s (CDRI 2013, 28). It is estimated that only 45 of them survived the Khmer Rouge regime, of whom 20 soon left the country; moreover, only 26 pharmacists, 28 dentists and 128 medical students remained in Cambodia (Angkor Hospital for Children 2014). Given such huge skill destruction especially at the high end of the skill spectrum, replenishing highly skilled professionals has been a daunting task in the somewhat short period of three decades.

In a similar vein, the World Bank's 2013 Enterprise Survey for Cambodia, which interviewed business owners and top managers of 472 firms covering manufacturing (76 percent of the total), tourism (14 percent), and agro-processing (10 percent) reported that about 27 percent of the firms identified inadequately educated workforce as a constraint on their business—far

higher than the 16 percent average figure for East Asia and the Pacific (www.enterprisesurveys.org, accessed 16 January 2015).

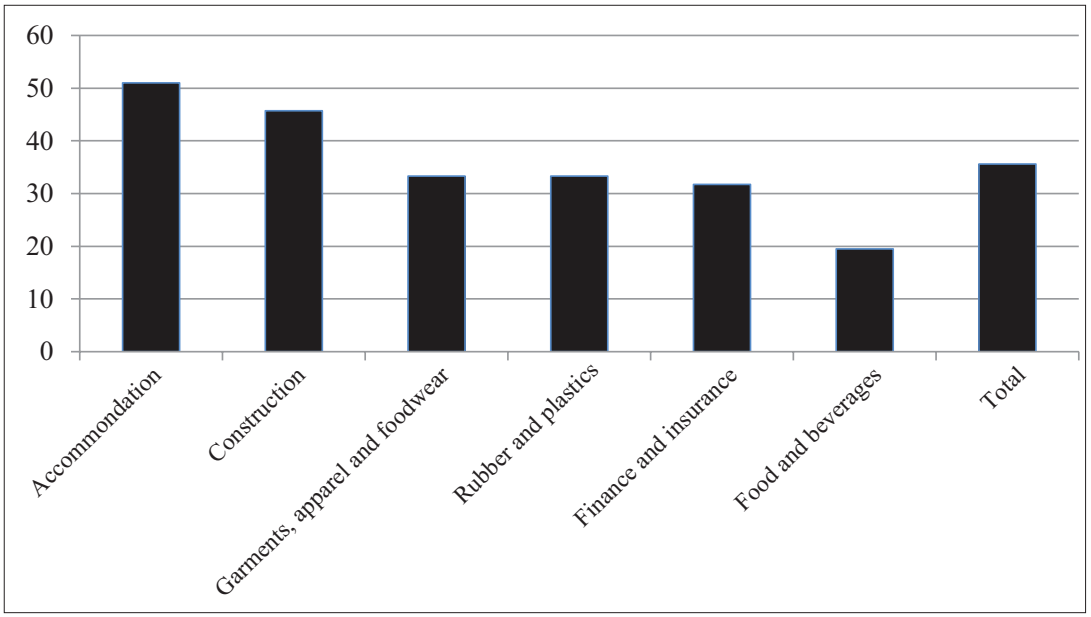
More detailed surveys point to significant skill gaps for a variety of jobs across a large number of sectors. A 2012 employer survey done by the International Labour Organization (ILO) covered more than 500 business establishments in six sectors—three in manufacturing (food and beverages; garments, apparel and footwear; and rubber and plastics), two in services (finance and insurance, and accommodation), plus construction (Bruni, Luch and Houch 2013). About one-third of the establishments were foreign-owned, and more than 30 percent of them had more than 100 employees each. At the time of survey, the business establishments were seeking to fill 17,500 vacancies (or about 14 percent of their total job openings), of which about 90 percent were in garments, apparel and footwear industry. Around 60 percent of the establishments had hired first-time jobseekers coming directly from the education system—across the board, from upper secondary school graduates to college, university and TVET graduates.

More than one-third of the establishments surveyed reported that shortage of skills among job applicants made it difficult to recruit new employees (Figure 2.4). Fifty-one percent of the firms in the accommodation service industry—covering hotels and guesthouses—reported that skill shortages were constraining their capacity to recruit. The comparable figure for the construction sector was only marginally lower at 46 percent.

Expressed in terms of vacancies (as opposed to establishments), the percentage of hard-to-fill vacancies due to job applicants' inadequate skills was somewhat lower but still significant at nearly 30 percent (Figure 2.5). Garments, apparel and footwear industry had the highest share of hard-to-fill vacancies due to skill shortages (accounting for about 85 percent of skill shortages in all six sectors), while rubber and plastic production had the lowest shares.

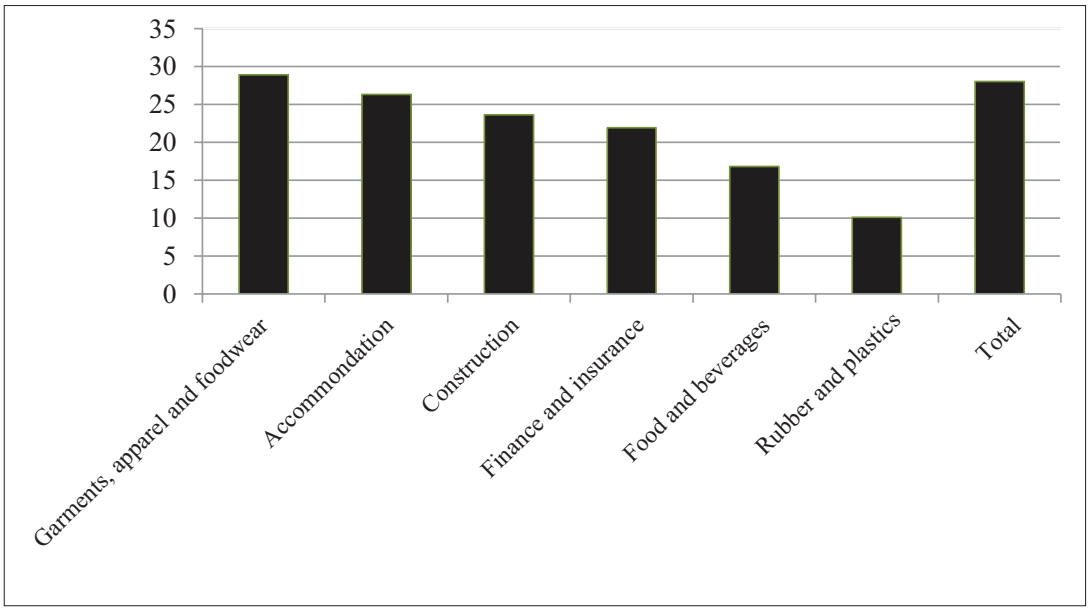
Interestingly, more than 90 percent of skill shortages in garments, apparel and footwear industry were mostly for elementary occupations that require little formal education—manual labourers, cleaners, caretakers and doorkeepers. Another 7 percent of the skills in short supply for this industry entailed higher skill categories such as crafts and trade workers (Bruni, Luch and Houch 2013, 51). Skill shortages in the other five sectors were for somewhat higher skilled occupations but still for low-to-medium skilled jobs such as sales and service workers (mainly in hotels and guesthouses), clerical workers (mainly in finance and insurance, hotels and guesthouses), plant and machine operators and technicians (in construction, rubber and plastics, food and beverages), and professionals and managers (spread across all the six industry groups).

Figure 2.4: Percentage of establishments with skill shortages



Source: Bruni, Luch and Houch 2013

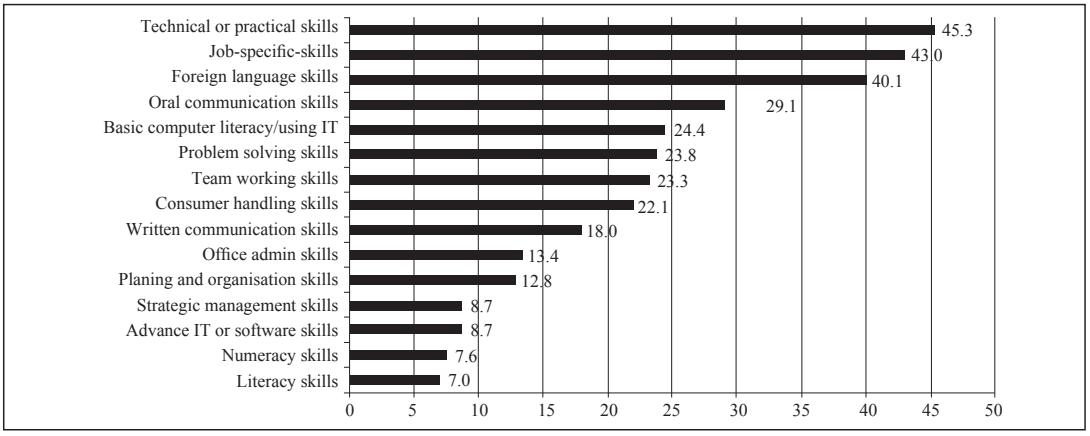
Figure 2.5: Percentage of vacancies with skill shortages



Source: Bruni, Luch and Houch 2013

Even for low-to-medium skill intensive jobs, gaps in technical skills—both job-relevant and job-specific—were the most pronounced. The skill gaps cited most by the firms as a recruitment constraint were overall technical skills, job-specific skills, computer and software literacy, foreign language proficiency, oral and written communication skills, and administration, planning and organisational management skills (Figure 2.6).

Figure 2.6: Percentage of establishments reporting shortages of difficult skills



Source: Bruni, Luch and Houch 2013

Inadequate soft skills for team-working and customer-handling were cited as the next most important constraint on filling job vacancies, followed by a lack of cognitive skills, especially problem-solving skills. About 24 percent of the firms cited both team-working and customer-handling skills as a notable constraint, while 24 percent of them also cited problem-solving skills as another constraint.

Moving away from new recruits to existing employees, more than half (55 percent) of the business establishments reported that their employees did not perform their jobs to the required standards. About two-thirds of the firms cited "lack of motivation" as the reason for their employees' underperformance; "being new to the job" and "lack of training" or "skill gap" were the other major reasons behind underperformance (Bruni, Luch and Houch 2013, 57).

A similar picture emerges in all six sectors. The types of skills that existing employees lack mirror the skill gaps among new recruits. Job-specific skills, oral communication capabilities, knowledge of a foreign language and manual dexterity were cited as the most important skill gaps among existing employees by about one-fourth of the firms (Bruni, Luch and Houch 2013, 58). Next in importance came soft skills (especially teamwork and customer service), followed by cognitive skills. Close to one-third of the businesses provided some form of training—induction, technical, occupational health and safety, IT and foreign language—to improve their employees' skills.

2.3 Skill gaps in the tourism sector

While skill shortages in the industrial sectors have received much attention in Cambodia, the presence of skill gaps in the country's service sectors,

especially in the tourism sector, has attracted somewhat less attention. The relative neglect of skill gaps in the tourism sector is unwarranted as it continues to be an important source of both overall economic growth and foreign exchange earnings for the country. With more than 4 million tourist arrivals in 2013, the tourism sector could contribute significantly to productive employment and income generation in the country (CDRI 2013).

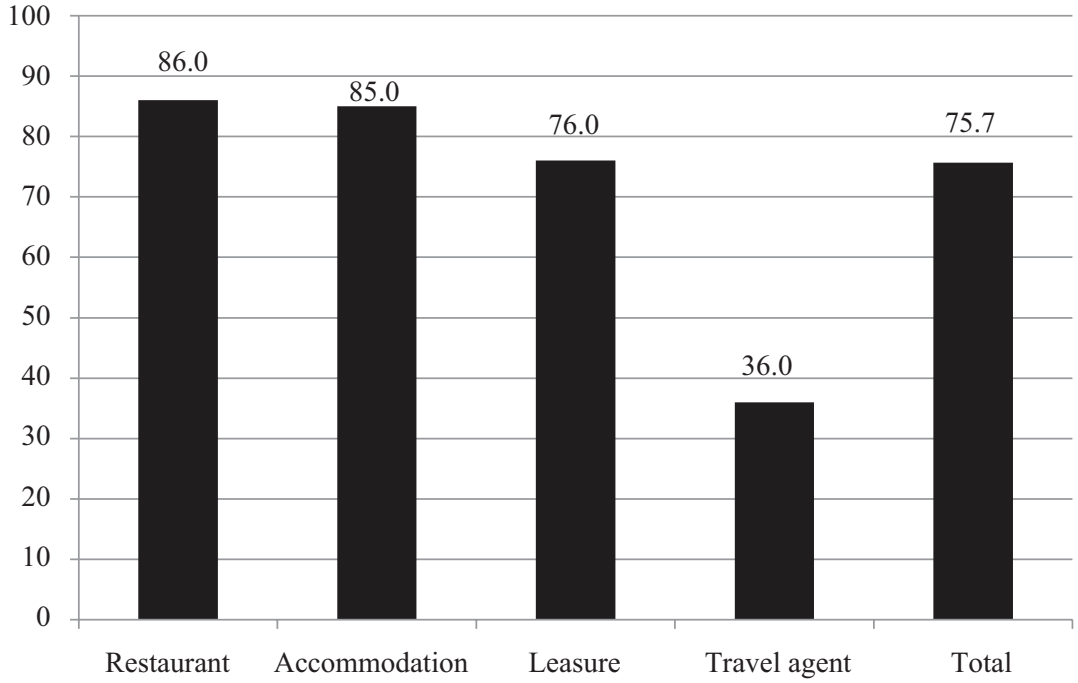
The World Travel and Tourism Council estimated that in 2014 the direct contribution of tourism to Cambodia's GDP was nearly 11 percent and to employment more than 9 percent. However, factoring in the indirect effects of tourism earnings on a whole set of tourism-related economic activities (the well-known multiplier effects through the backward and forward linkages of tourism with other sectors in the economy), the total effects on income and employment are more than twice the direct contributions. The total contribution of the sector on income was about 24 percent of GDP and on employment about 21 percent of the country's total employment (WTTC 2014).

The relative economic importance of the tourism sector in Cambodia is much higher than in many of its neighbouring countries (CDRI 2013, 59). Identifying the constraints on the tourism sector, including any skill gaps the sector may be facing, and addressing them effectively has substantial potential to sustain strong growth and development for the country. Indeed, addressing skill gaps in this sector would be relatively easier unlike in the industrial sector (where the needed science, technology and engineering skills take longer to acquire).

A 2012 employer survey in the tourism sector conducted by the National Employment Agency (NEA 2013) gives an overview of the skill gaps faced by the sector. The survey was done in Siem Reap—the major tourist centre of Cambodia—and covered 300 business establishments in four tourism subsectors—accommodation or hotels and guesthouses (100), restaurants (100), travel and tour agents (50), and leisure or recreation and entertainment (50). About 60 percent of the establishments were small enterprises with less than 25 employees, about 30 percent were medium sized with 25 to 99 employees, and the remaining were large enterprises with more than 100 employees. At the time of the survey, the 300 establishments together had about 6200 vacancies.

Three-fourths of the establishments reported a lack of necessary skills among job applicants (Figure 2.7). The share of enterprises citing skill gaps as a major factor constraining recruitment was the highest in restaurants, hotels and guesthouses (about 86 percent). Travel and tour operators experienced much lower skill shortages (about 36 percent) among their new recruits.

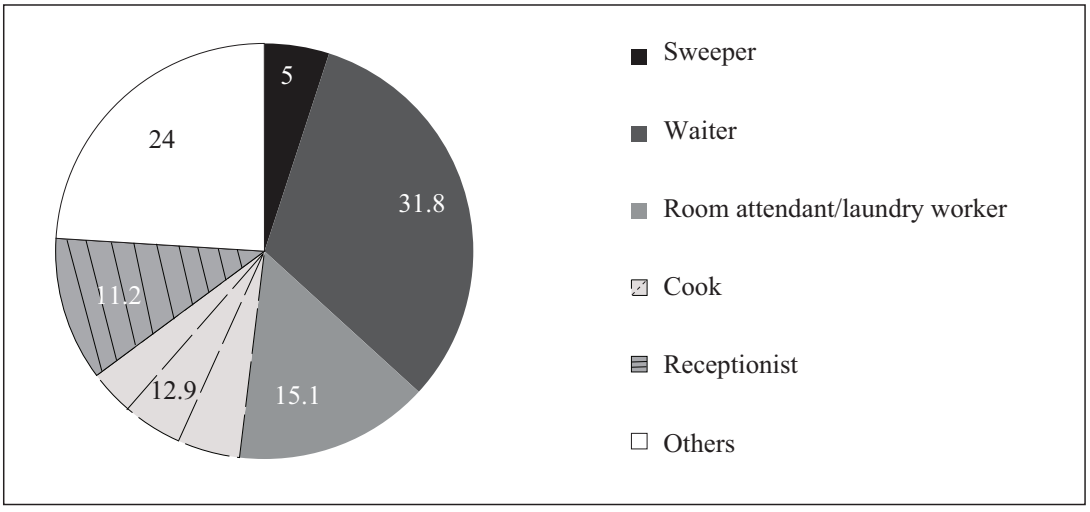
Figure 2.7: Percentage of tourism sector establishments with skill shortages



Source: National Employment Agency 2013

As within the garment industry, skill shortage in the tourism sector is predominantly felt in low-to-medium skilled occupations. Establishments reported that about 24 percent of the staff in elementary occupations such as cleaners, housekeepers and doorkeepers did not have the proficiency required to do their jobs; similarly, more than half of sales and customer service staff were also reported to have inadequate professional skills (NEA 2013, 27).

Figure 2.8: Percentage of tourism sector establishments reporting shortage of different skills



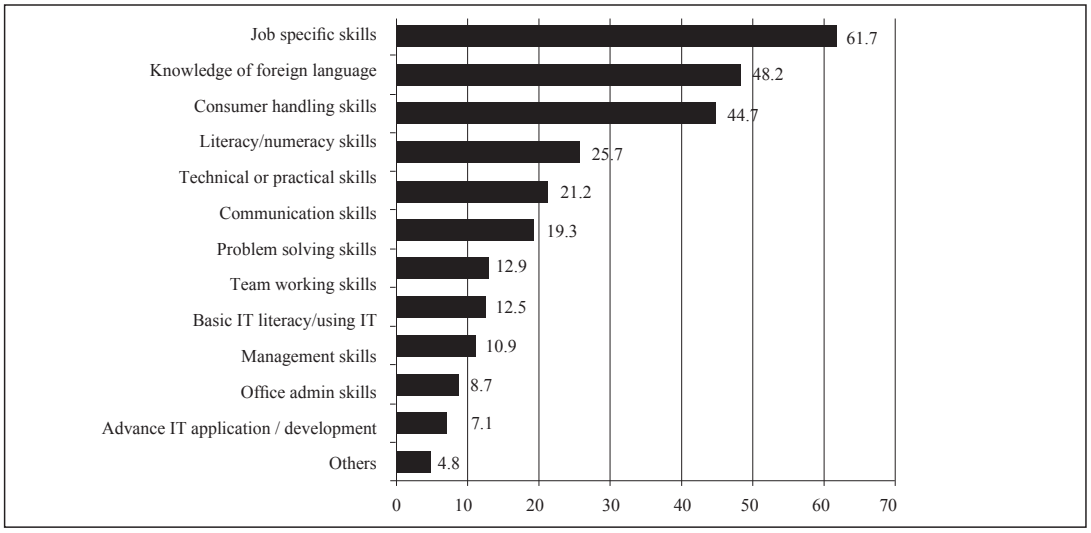
Source: National Employment Agency 2013

In the important segments of the tourism sector—hotels, guesthouses, restaurants, recreation and entertainment—establishments reported significant skill gaps across a wide range of jobs that require low to medium skills such as kitchen staff, room attendants, laundry staff, waiters and receptionists (Figure 2.8).

Job-specific skills were cited as the single most important skill gap among the employees in the tourism sector. Close to two-thirds of the tourism business establishments identified inadequate job-specific skills as a skill gap among their employees (Figure 2.9).

Lack of foreign language knowledge was the second important skill gap, cited by close to half of the establishments. Other cognitive-cum-technical skills cited as a constraint by significant proportions of the establishments were literacy and numeracy, problem-solving skills and communication skills. Lack of cognitive and technical skills is only part of the human resource problem in the tourism sector; a significant number of establishments also cited soft skills such as customer handling and team-working skills as lacking in their employees. Not surprisingly, therefore, Cambodian tourist businesses face difficulties finding qualified tour guides, receptionists and other hospitality staff.

Figure 2.9: Percentage of tourism sector establishments reporting shortages of different skills



Source: National Employment Agency 2013

Luu Meng, President of the Cambodia Hotels Association, was recently reported as saying that the tourist hub of Siem Reap—where the hotel industry has about 11,000 rooms and is growing at around 10 percent per year—badly needs skilled staff (quoted by Sothear and Styllis in the *Cambodia Daily*, 14 May 2014). The lack of training facilities of hospitality

services staff seems to be one of the major constraints. Chhum Moniroth, the Education Director of Siem Reap's Hospitality School, summed it up well: "We receive about 1000 to 1200 applicants per year, but we only have the capacity to train about 250 because we don't have enough money or resources to expand" (quoted by Sothear and Styllis in the *Cambodia Daily,* 14 May 2014). These observations are in line with the broader results from the 2010 HRINC survey in which 64 percent of employers identified the lack of good training providers as the single largest constraint on closing the skill gap (HRINC 2010 cited in World Bank 2012, 9).

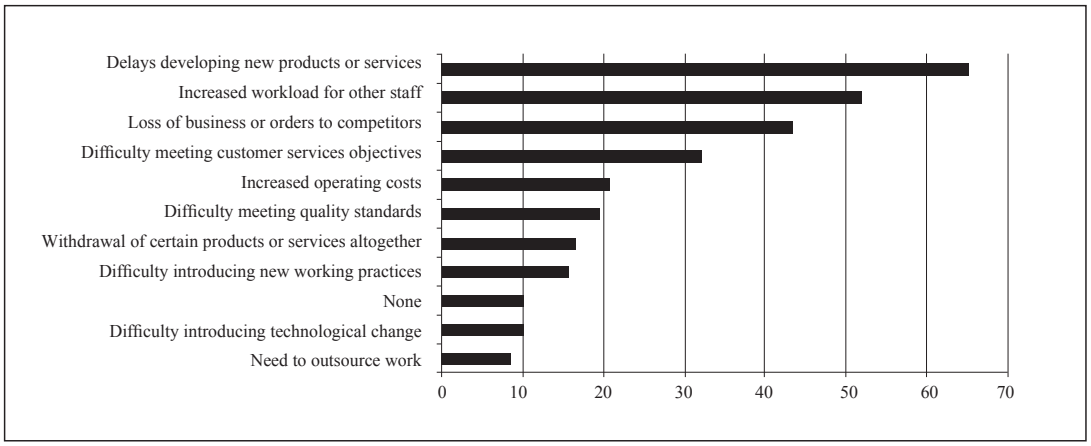
2.4 Impacts of the skill gap

The economic impact of skill gaps is easy to decipher. It should push up the wages of the occupations or sectors that experience skill shortages and pull down the outputs of those sectors. Which of these effects will dominate depends on the wage inertia in those segments of the labour markets. Labour markets are notorious for their stickiness in wage adjustment. Hence, it is more likely that the negative effect on output will dominate the immediate effect of the skill gaps. In the medium-to-long term, however, wages for skill-starved occupations will go up. As wages rise, profits fall. That, in turn, will affect the competitiveness of these sectors and hence investment in them. All these factors would ultimately lower the long-term growth of the country.

At the level of firms, skill gaps constrain their ability to grow, innovate, deliver products and services on time, and meet the quality standards of their products (Aring 2012, 12). Some indication of these adverse effects in Cambodia can be inferred from the impacts of hard-to-fill vacancies, as cited by the firms in the 2012 employer survey by the ILO (Bruni, Luch and Houch 2013). About two-thirds of the firms in that survey reported that the difficulties in recruiting new employees to fill their vacancies delayed their development of new products and services (Figure 2.10).

Other impacts that were cited include loss of business to competitors (more than 40 percent of the establishments), difficulty meeting customer obligations (30 percent), increased operation costs (20 percent) and difficulty in meeting quality standards (about 20 percent). Delays in developing new products and loss of business to competitors were the most serious impacts felt by the garments, apparel and footwear industries, while excessive workload for the existing staff, which in turn affected the quality of customer services, was the major problem faced by hotels and guesthouses (Bruni, Luch and Houch 2013, 54). In extreme cases, firms were even forced to withdraw certain products and services from the market.

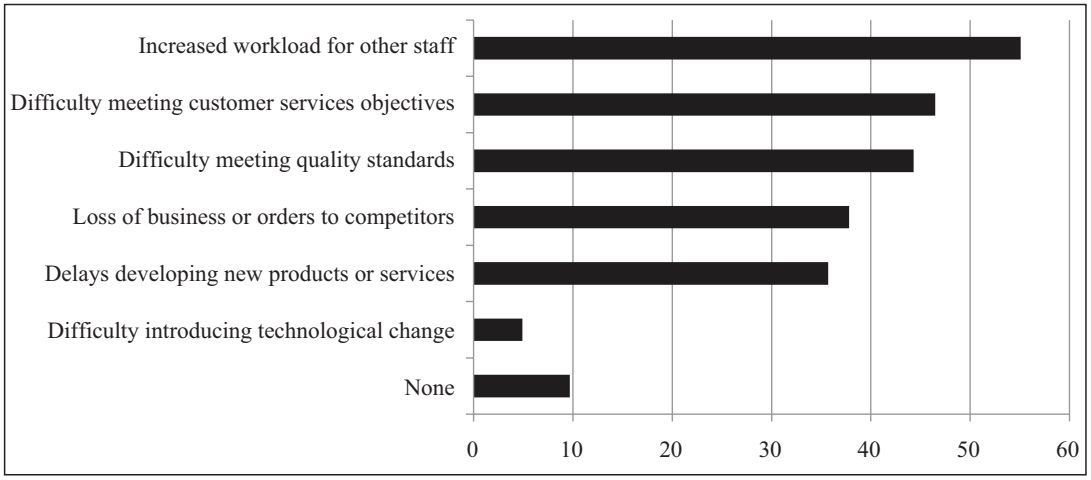
Figure 2.10: Impacts of skill shortages on business (percent)



Source: Bruni, Luch and Houch 2013

For the tourism sector, the adverse consequences of skill shortages are more severe and widespread. The 2012 National Employment Agency Survey results vividly indicate this (NEA 2013). More than half of the establishments across the many tourism subsectors reported that employee skill shortages placed heavier workload on the other staff (Figure 2.11).

Figure 2.11: Impacts of skill shortages on tourism business (percent)



Source: National Employment Agency 2013

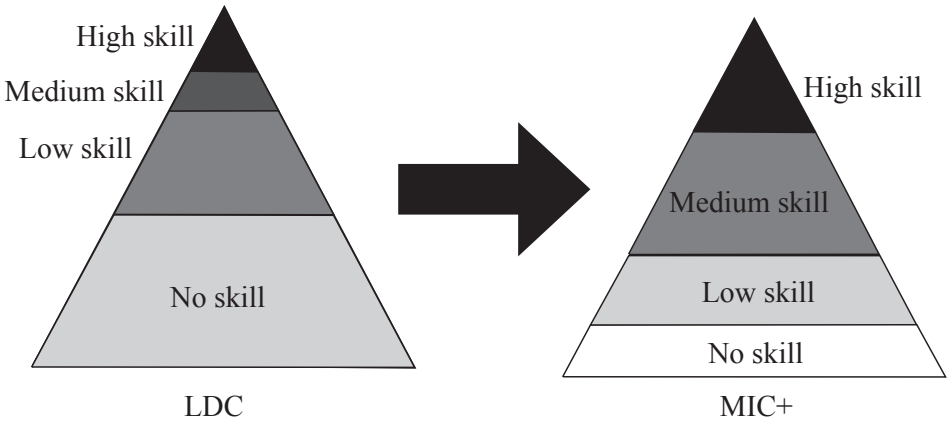
Nearly 50 percent of the employees also said that skill shortages affected customer satisfaction. Other major undesirable consequences reported included difficulties meeting quality standards (44 percent), loss of business to competitors (38 percent) and delays in developing new products and services (36 percent).

What is noteworthy is that the non-farm skill gap is emerging even as Cambodia's agricultural sector and the rural economy has a substantial surplus labour force, indicating that the "farm-to-factories" transfer of surplus rural labour that characterises industrial development still has a long way to go

(Madhur 2014). The country therefore faces: (i) a pervasive shortage of all kinds of skill shortage—ranging from low-to-medium skilled personnel to highly specialised professionals; (ii) a large pool of college-educated youth whose skills with an education in liberal arts do not match the emerging demands of a rapidly industrialising and modernising economy, and hence are either unemployed or underemployed; and (iii) a substantial pool of excess labour, especially unskilled labour, in the countryside. With more than 50 percent of the country's population in the 15-24 year age group, such a configuration of skill gaps and mismatches provides a situation that is ripe for large-scale youth unrest and its potential social and political fallouts (Madhur 2014).

Skill gaps mismatches are emerging at a critical juncture for Cambodia: at a time when the country is poised to graduate from low-income to middle-income status, and on the eve of the ten-member Association of Southeast Nations (ASEAN), of which Cambodia is a member, launching the ASEAN Economic Community (AEC). Experience elsewhere shows that for countries to smoothly graduate from low-income to middle-income status and then to successfully traverse the somewhat long and arduous middle-income journey, they have to gradually move away from predominantly labour intensive to a primarily skill intensive growth process. The skill mix of their workforce, in turn, will have to move away from unskilled and low-skilled to medium- and high-skilled categories. A simplified, stylised requirement for skill transformation is presented in Figure 2.12 (Del Carpio 2013).

Figure 2.12: Cambodia's changing skills needs



Source: Del Carpio 2013

As is true of most regional integration projects, the AEC will bring both opportunities and challenges for its member countries (Das et al. 2013). The AEC's provision for a freer movement of skilled labour in eight broad areas of expertise—medical doctors, dentists, nurses, engineers, architects,

accountants, surveyors and tourism industry professionals—is likely to have substantial implications for Cambodia's skill gap and the educational reforms. In general, ASEAN member countries could benefit from this freer movement of higher skilled labour to varying degrees, as they can bridge their national-level skill gaps and mismatches by more easily importing skills from and exporting surplus labour to other member countries.

Although the benefits to poorer countries within the ASEAN region are limited due to the exclusion of freer movement of unskilled labour, the limited movement of skilled labour under the AEC would still make it easier for countries such as Cambodia to import skilled professionals. That should enable Cambodia to tackle skill shortages and gaps at the higher end of the skill spectrum. Indeed, about 70 percent of the employers from Cambodia in the Emerging Markets Consulting Survey said that the freer mobility of high-skilled labour under the AEC will have a "positive" (sum of positive and very positive responses) impact on their enterprises—the highest figure among the seven countries covered. The corresponding share of positive responses to the freer mobility of semi-skilled labour is also significant, but lower at 40 percent (EMC 2014, 29-30).

However, without the necessary measures to shore up the skill-base of its young workforce, the freer mobility of skilled labour under the AEC could make the country perennially dependent on imported skills (Madhur 2014). Dependence on importing skills rather than producing them domestically could become a barrier to employment of large numbers of Cambodian youth and under-skilled workers who are inadequately equipped to compete with imported skilled labour. Speaking on behalf of business leaders, as quoted in the *Phnom Penh Post* of 1 March 2013, Rami Sharaf, CEO of RMA Cambodia, cautioned, "We need to upgrade these guys [Cambodian workers] because once the market becomes one big open border, if we don't do it, in 2015 you will have whoever from whatever other country. They can come to take the jobs of our local labor force."

From a broader socio-economic perspective, a skilled youth with productive employment and decent jobs, like a healthy society, is both a determinant and a component of human development or socio-economic development more generally. Tackling the emerging skill gap by imparting the right kinds of skills to youth is also an end in itself, in addition to being a means to achieving strong sustained growth.

2.5 Cambodia's skill gap in a global context

The lack of skills among youth is not peculiar to Cambodia. It is a global phenomenon, cutting across countries and continents. Both high-income

countries and poor nations face skill shortages (Madhur 2014; WEF 2014). A 2012 report by McKinsey pointed out that across the nine countries covered by that study (Brazil, Germany, India, Mexico, Morocco, Turkey, Saudi Arabia, the United Kingdom and the United States), only 43 percent of the employers surveyed could find enough skilled entry-level workers. Further, even as employers complained about significant skill shortages, more and more youth worldwide were either unemployed or underemployed, pointing to large skill mismatches between educated youth and labour market needs (McKinsey & Company 2012, 11). What is even more important, another report cautioned, is that the worldwide problem of skill shortage and mismatch is likely to get much worse in the next decade (McKinsey Global Institute 2012).

Similar conclusions emerge from other work on education too. Indeed, recent studies show how the neglect of educational quality has led to a global learning—and hence a skill acquisition—crisis (CGD 2013; Malone 2013; UNESCO 2014). One expert summarised the predicament well: "Schooling is the means to the goal of education. Are children around the world emerging from the schooling they get with the education they need? 'No … Schoolin' just ain't learnin'" (Pritchett 2013, 14). Education experts around the world are now in agreement that as the 2015 Millennium Development Goals Agenda comes to an end, we should move beyond the target of universal schooling to universal learning. A recent study by the World Economic Forum (Bloom et al. 2014, 10) underscores the "… need to take a leap to an entirely new order of education that is being facilitated by the advent of the digital age and much more interactivity than the classrooms of the past." The emerging theme is that nothing short of a "global education revolution" will be needed to address the worldwide skill gaps and mismatches (McKinsey Global Institute 2012, 57).

Take the case of Vietnam, one of Cambodia's neighbours. A recent report by the World Bank (2013, 51) noted:

> … many Vietnamese firms report a shortage of workers with adequate skills as a significant obstacle to their activity … Over 60 percent of international firms view the availability of labor with the right skills as an obstacle to their activity, and nearly half of these firms view it as a major obstacle. Nearly 40 percent of international firms see the general education of workers as an obstacle, and nearly 46 percent see vocational education as an obstacle.

The report (p. 54) went on to say, "Employers' concerns on skill constraints are mirrored by worker's view that their skills limit their ability to advance in the workplace." Similarly, another World Bank study on 12 Eurasian

countries highlighted, "Firms are unhappy about poor skills …. Many students have outdated specialities … Many job seekers lack the required soft skills" (Gill et al. 2014, 249-251). It is thus not surprising that surveys for other developing countries in East Asia show similar employer and employee perceptions of the skill gap

There are, however, major differences in the nature of skill gaps across countries. While developed countries face shortages mostly at the high-skills end of the spectrum, less developed countries face a more pervasive shortage of skills across a wider range of skills. Take the case of the US. It has a shortage of qualified talent in high-tech and knowledge-intensive industries and businesses driving innovation at the technological frontiers. In contrast, Cambodia and Vietnam have skill shortages across a much broader skill spectrum. As the previous sections highlighted, Cambodia has an acute shortage of well-trained managers, engineers and doctors; at the same time, it has a shortage of low-to-medium skilled personnel for both its industry and service sectors.

2.6 Conclusion

Cambodia is facing huge skill deficits even for relatively light-skill-intensive sectors such as garments, hospitality, tourism and construction. Skill shortages for the more skill-intensive sectors like automobile assembly, electronics, and information and communication technology are even higher, not to mention the acute shortage of highly skilled professionals such as managers, engineers and doctors.

Skill shortage for the industrial sector has received much attention in Cambodia. However, the shortage of skills for the country's tourism sector has received somewhat less attention. Interestingly, the tourism sector, which contributes hugely to income and employment growth (and has even bigger potential in the future), is facing as severe a skill shortage as the industrial sector.

The pervasive skill shortages encompassing the three broad types of skill sets—cognitive, technical and soft—are already adversely affecting businesses in a wide range of sectors (Figure 2.13). If the skill gap is not narrowed, the country's economic growth and business dynamism will be severely stunted in the future. Moreover, from a broader socio-economic perspective, skilling youth to improve their employability is especially important for their empowerment and achieving the larger objective of human development.

Skill gaps are only part of the problem. There are also substantial skill mismatches in the country. Even as businesses face a shortage of the kinds of

skills that are required in a rapidly industrialising and modernising economy, there is large pool of college-educated youth whose skills do not match the requirements of employers and enterprises. This skill mismatch mars the employability of educated youth and has the potential to cause youth unrest, threatening social and political stability.

Figure 2.13: Skill shortage and impact: A summary

Type of skill shortages	Low-to-medium skill (Economy wide)	Low-to-medium skill (Tourism)
Cognitive		
Oral communication	●	●
Written communication	●	N/A
Literacy/ numeracy	●	●
Basic computer literacy/using IT	●	●
Problem solving	●	●
Soft or behavioural		
Team working	●	●
Customer handling	●	●
Technical		
Technical or practical	●	●
Job-specific	●	●
Foreign language	●	●
Office admin	●	N/A
Planing and organisation	●	N/A
Strategic management	●	●
Advanced IT or software	●	●

Impact of skill shortages	Low-to-medium skill (Economy wide)	Low-to-medium skill (Tourism)
Delays developing new products or services	●	●
Increased workload for other staff	●	●
Loss of business or orders to competitors	●	●
Difficulty meeting customer services objectives	●	●
Increased operating costs	●	N/A
Difficulty meeting quality standards	●	●
Withdrawal of certain products or services altogether	●	N/A
Difficulty introducing new working practices	●	N/A
Difficulty introducing technological change	●	●
Need to outsource work	●	N/A
None	●	●

Note: The bigger the circle, the larger the skill gap/or impact
Source: Authors

A serious rethinking of how to address the skill gaps and mismatches is needed if Cambodia is to successfully traverse its middle-income journey and to adjust smoothly to the AEC in coming years and decades. In essence, the issue boils down to one of imparting the right kind of education to the country's youth so that they are prepared with the right skills and knowledge to adapt to a fast-changing and competitive marketplace.

How the country's education system can contribute to narrowing the skill gaps and mismatches and what kinds of education reforms are needed—ranging from higher education to pre-school and early childhood development through primary and secondary schooling and TVET—are examined in the next five chapters.

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