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Skills Shortages and Skills Gaps in the Cambodian Labour market: Evidence from Employer Survey 2017

National Employment Agency

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Acknowledgments

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Executive Summary

Aims of the study

Cambodia has relied on labour intensive manufacturing and low skilled service sectors to support its growth. As the country develops toward an emerging market economy, more sophisticated production processes and high-skilled labour force are required to sustain its rapid growth, as well as to compete in global markets. Thus, as stated in the Rectangular Strategy Phase III (2014 to 2018), the Royal Government of Cambodia has emphasized that **growth, employment, equity and efficiency** are key objectives in Cambodia's economic and social development planning. In addition, the Cambodia's Industrial Policy (IDP) 2015-2025, which was adopted in 2015, highlighted a new growth strategy aiming at transforming and modernizing industrial structure from a labour intensive to a skill-based one, as well as linking Cambodian industry and economy with the global value chain and integrate them into regional production networks.

Nevertheless, the link between education and vocational training, and industrial policies is weak. The government, thus, launched various employment and human development policies such as National Employment Policy (NEP) 2015-2025 and National Technical and Vocational Education and Training Policy 2017-2025, in 2015 and 2017 respectively in order to enhance skills and human resources development to meet the country's development and market demands. Therefore, the employer skill need survey, which is a demand-side survey or employers' survey, aims at understanding the needs of employers, and will be beneficial in tackling labour market problems in the future.

Specifically, the employer survey 2017 is the fourth installment of the survey conducted previously by National Employment Agency (2012, 2014, and 2015). This survey is the key primary data source on employer demand for and investment in skills. During the survey, 605 establishments are interviewed at the national level across 10 important sectors, which are the major driving engines for employment generation as well as having a greater share in Cambodia's GDP. The 10 selected sectors include Food and Beverages; Garment, Apparel and Footwear; Rubber and Plastics; Construction; Finance and Insurance; Accommodation; Transportation; Warehouse and Logistics; Health; Education; and Information and Communication Technology (ICT). Regarding the size of the establishment, the survey covered establishments employing 10 employees or more because those establishments were more likely to provide accurate data on jobs and staff turnover by occupation and were able to provide a good estimate of future skills demands.

The survey covers topics such as the characteristics of the selected sectors, their employment structures, and especially the work readiness of first time job-seekers, recruitment difficulties, skills shortages, skills gaps, workforce training, and business strategies. Additionally, using the findings from this study, we try to underline the key information on skills shortages, skills gaps, and skills mismatches in Cambodia. This report offers insightful information to its readers, especially policymaker or decision-maker, inducing them to come up with more appropriate and more effective actions or solutions for short-term or long-term development perspectives.

Establishments' characteristics

The 605 sampling establishments represents the total establishments of 4,571, accounting for about 962,972 employments in 2017. The establishments interviewed were relatively young. Only 5.6% started their business before 1993, 6.6% started during 1993-1997, while other 87.7% started theirs after 1998. The most common type of business entity is individual proprietor representing 60.6% of total establishments, followed by private limited establishments (12.8%). Last but not least, general partnership comes in third place with 9.8%.

Around two-third of establishments (65.5%) are owned by Cambodians, while 22.9% of establishments are owned by foreigners and the rest of 9.2% are joint ownership. The survey shows that 71.0% of

Cambodian owned establishments, 99.0% of foreign owned establishments, and 97.5% of joint ownership establishments are registered with Ministry of Commerce or other related institutions.

The majority of establishments sell their products or services in domestic market, accounting for 72.6% of total establishments, while the rest of 27.4% targets international market via either direct means or through an intermediary.

As for employment distribution; garments, footwear and apparel; accommodation; food and beverage, and finance and insurance; are the sectors absorbing the most employments. Together, these four sectors accounted for 80.3% of the total number of establishments, employing 90.1% of total employment covering by the survey.

Market development

The aggregated demand for all these sectors was at the boundary between balance and high demand in 2017, and are expected to slightly increase in 2018 and 2019. Finance and insurance, ICT, education, and health sectors experienced the higher demand in 2017 compared to 2016 and are expected to have a continued high demand for both 2018 and 2019. Complimentary to the assessment of demand, the results of the survey show consistently that the highest proportion of establishments planning to introduce new products, services or technologies, and to acquire new markets in the next year were in the education sectors (86.3% of total establishments within this sector), followed by finance and insurance (80.6%). Overall, 45.7% of all establishments planned to introduce new products, services or technologies or to expand or switch to new market in 2018.

Employment structure and turnover rates

One noteworthy observation that emerged from the survey was the positive employment growth between 2016 and 2017 and its expectation for the upcoming two years 2018 and 2019. Between 2016 and 2017, the total employment level of ten sectors increased by a positive growth rate of 1.5%, approximately 14,123 additional jobs and it is expected to continue its increasing trend with an annual growth rate of 2.2% between 2017 and 2019, equivalent to the annual creation of 21,546 additional jobs.

An analysis by occupation shows that the skill level required for the jobs was quite low. Plant and machine operators had the largest share, accounting for 62.2% of total employment. Craft and related trades workers and elementary occupations together accounted for 15.4% of the workers. In the occupations that required at least a high school diploma, technicians accounted for 4.8% of the total employments, professionals for 3.4%, and managers for 3.7%.

The turnover rate is defined by the percentage of staff in the total employed people that leaves during a certain period of time. According to the survey, the average turnover rate of the ten investigated sectors was 16.5% during 2017, and this is higher compared to 13.7% in 2016. In 2017, the highest turnover rate (22.5%) was found in accommodation sector, followed by rubber and plastics (18.8%), and garment, footwear, and apparel sector (17.2%). In 2018, the employers seem to be optimistic and expected the turnover rate to be lowered to around 6.2%. The expected turnover rate in 2018 has quite the same pattern as the previous year.

Recruitment situation

More than one third of the establishments (37.1%) declared having available vacancies, a decrease by 17.3% compared to the previous survey. However, the percentage varied between different sectors; Finance and insurance sector stood in the first rank and the last ranks was food and beverage sector. Job vacancies in 2017 were reported of 6,421 vacancies during the fieldwork of survey, a decrease of 2,376 vacancies compared to 2015. This decline was mainly due to the lower labour demand in garment, footwear and apparel of -3,388.

The survey also pointed out that the available vacancies' reporting by the ten sectors were concentrated in three main occupations: plant and machine operators, and assemblers (32.1%), which is mainly driven by its high number in garment, footwear, and apparel sector which already took 90.1% of the available vacancies in this sector; technical and associated professionals (18.5%), and sale and services workers (16.4%).

The study also reported that around 47.5% of establishments with vacancies claimed to have experienced recruitment difficulties. This proportion was varied across sectors from the highest value of 77.9% in accommodation to the minimum of 7.3% in rubber and plastics.

The vacancies which were difficult to fill were measured by density of hard-to-fill vacancies: the vacancies which were likely hard-to-fill were those of technician and associate professionals (70.2%), managers (61.9%), service and sale workers (41.0%), professionals (39.1%), elementary occupations (30.6%), clerical and support workers (27.1%), craft and related trades workers (22.3%), plant and machine operators and assemblers (8.9%), and skilled agricultural workers (0.9%).

When asked why vacancies were hard to fill, the most usual cause (41.0%) was low number of applicants with the required skills. This first reason suggested that the education system has not yet produced enough skilled workers to respond to the demands of employers. The second reason was there were too much competition from other employers. The third reason was linked to the lack of work experiences the company demands.

In overall, the perceived causes of hard-to-fill vacancies vary according to sector, notable differences include:

- Too much competition from other employers was very pronounced in accommodation, finance and insurance, garment, health, ICT, and logistics.
- Not enough people interested in doing this type of job was more likely to cause hard-to-fill vacancies in accommodation, finance and insurance, health and ICT
- The low number of applicants with the required skills was pronounced in in accommodation, education, finance and insurance, garment, health, ICT, and rubber and plastics.
- Low of number of applicants in general caused the main problem of hard-to-fill vacancies for the sector of accommodation, education, food and beverage, and garment.
- Lack of work experience demanded by the company was particularly the cause of hard-to-fill vacancies in the accommodation, construction, education, garment, health, and ICT.
- Low number of applicants with the required attitude, motivation or personality and poor career progression/lack of prospects caused the major problems of hard-to-fill vacancies for the sector of food and beverage.

About one-fourth of total establishments experience skills shortages (24.9% of establishments with at least one vacancies). Notably, the highest proportion of establishment facing skills shortages was found in accommodation with 44.5% of establishments with at least one vacancies, followed by health with 37.3% and education with 33.0%. Finance and insurance, and ICT sectors followed with the proportion above the average level,at 31.0% and 26.2% respectively.

The analysis of skills-shortage vacancies by major occupation and sector suggested that the skills shortages affected:

- in accommodation, mainly clerical and support workers (65.5%), followed by service and sales workers (20.4%);
- in construction, professionals (68.2%) and technicians and associated professionals (22.7%);
- in education, professionals (87.7%);
- in finance, technicians and associated professionals (87.2%), and service and sales workers (10.2%);
- in food and beverages, service and sales workers (71.2%), and elementary occupations (22.7%);
- in garment, plant and machine operators (67.9%), and professionals (13.6%);
- in health, professionals (44.4%), technicians and associated professionals (22.2%), and service and sales workers (11.1%);
- in ICT, professionals (40.0%), technicians and associated professionals (33.8%), and service and sales workers (22.5%);

- in logistics, plant and machine operators (46.7%), managers (20.0%), and professionals (20.0%);
- and in rubber and plastics, service and sales workers (66.7%), and professionals (33.3%).

The survey also tries to identify which skills are lacking among job-seekers. Foreign language skills, which was the top skills lacking in previous survey in 2015, remained on the top spot of skills lacking among job-seekers. The second rank was technical or practical skills, followed by customer handing, oral communication, team work, and problem-solving skills.

Skill gaps and workforce development

The survey indicates that about one-third (29.2%) of the establishments interviewed declared to have encountered the issue of skills gaps. Notably, the survey show that there were high skills gaps within the construction and the finance and insurance sector (44.0% and 41.3%, respectively). Despite the high share of establishments (29.2%) experiencing skill gaps, about 13,403 of total 962,972 workers (1.4%) were considered to have skill gaps. Remarkably, "construction" was the highest in density of the skill gaps sector.

The main cause of skill gaps is "New to the role" reported by 41.9% of the establishments with skill gaps, a reason that could be connected to the high turnover that characterizes the Cambodian labour market. The second reason, cited by 24.2% of the establishments, was the fact that training is currently only partially completed. Problem of retaining staff ranked only third in most cases with 19.4%.

Overall, during the 12 months preceding the survey, around one-fifths of establishments (15.9%) had funds or arranged some forms of training for their employees, but this proportion is varied roughly across different sectors; the highest percentage was found in finance and insurance sector (38.8%) and the lowest one was in rubber and plastics sector (2.2%).

However, there is only 18.6% of all establishments providing training had both training plans and budget that specified in advance, and also the level and type of training that would be needed in the coming year. Some of establishments (28.0%) stated that, while having training budget, they had no training plan.

Among the establishments that stated to have had training in the last 12 months, 45.7% of them provided training in technical or practical skills. Other trainings such as customer handling skills (40.8%) and oral communication skills (35.1%) came second and third rank, respectively.

Among the establishments that provide training to their staff in the last 12 months, 22.0% of them experienced difficulties in organizing training courses and/or finding trainers. This proportion is particularly high in education section, where 54.0% of establishments within this sector encountered this issue. The second one was in accommodation with 37.3%, followed by food and beverage (30.8%), health (28.6%), and construction (27.7%).

Employers' perception of first time jobseekers (FTJS)

Overall, 40.1% of all establishments hired first time jobseekers (FTJS) over the last 12 months. The rates were found to be very high for some sectors such as finance and insurance (73.4%), education (71.0%), health (58.9%), and construction (58.3%). In general, employers reported good level of work preparedness of university graduates, which is better than any other graduates, particularly for finance and insurance, rubber and plastics, and health sector. As for TVET graduates on the other hand, employers rated post-secondary TVET better than pre-secondary TVET.

The poor work preparedness of FTJS are concentrated on four main areas: English language skills, poor attitude/personality, lack of working world/life experience, and basic IT skills. The degree and types of complaint depend on their education levels. Notably, among several skills, English language skills is reported by all level of education. For pre-secondary TVET, it is particularly important to improve attitude/personality, technical and practical skills, while lack of experiences is needed to reinforce for post-secondary TVET schools. For university student, the knowledge of Basic IT and experiences has become very important to find the first job.

1. Introduction

Cambodia has relied on labour intensive manufacturing and low skilled service sectors to support its growth. As the country develops toward an emerging market economy, more sophisticated production processes and high-skilled labour force are required to sustain its rapid growth, as well as to compete in global markets. Thus, as stated in the Rectangular Strategy Phase III (2014 to 2018), the Royal Government of Cambodia has emphasized that **growth, employment, equity and efficiency** are the key objectives in Cambodia's economic and social development planning. In addition, the Cambodia's Industrial Policy (IDP) 2015 - 2025, which was adopted in 2015, highlighted a new growth strategy aiming at transforming and modernizing industrial structure from a labour intensive to a skill-based one, as well as linking Cambodian industry and economy with the global value chain and integrate them into regional production networks. Nevertheless, the link between education and vocational training, and industrial policies is thin. The government, thus, launched various employment and human development policies such as National Employment Policy (NEP) 2015 - 2025 and National Technical and Vocational Education and Training (TVET) Policy 2017 - 2025, launched in 2015 and 2017, respectively in order to enhance skills and human resources development to meet the country's development and market demands.

However, there is still little discussions on how to make education and vocational training respond to new or higher value-added activities targeted by IDP. If Cambodia commits to become a higher value-added economy, building human capital that can manage new technology and be employed in the new emerging or higher value-added sectors is a key success factor. Therefore, the identification of the new or higher value-added sectors and the linking of education to those value-added activities is very important.

Therefore, employer skill need survey, which is a demand-side survey or employers' survey, aims at understanding the needs of employers, and will be beneficial in tackling labour market problems in the future. Hence, in order to be able to explain the nature of Cambodia's labour market from the demand side, 605 establishments were interviewed at the national level across ten sectors, which have high growth potential, and are major drivers of employment generation. These selected ten sectors are food and beverage; garment, apparel and footwear; rubber and plastics; construction; finance and insurance; accommodation; transportation, warehouse and logistics; human health; education; and information and communication technology (ICT). In short, the main objectives of this survey are to contribute towards effective employment and skills development policies by providing the necessary information required to:

- Analyze the current Cambodian labour market situation
- Explore employers' perceptions of first time job seekers
- Analyze the employment structure
- Assess the skills shortages and skills gaps by occupations in each selected sector
- Build a short term occupational barometer (please read a separated report on "Cambodia Job Outlook 2018")
- Contribute to skills development programs coherent with the future labour demand
- Allow designing and implementing of the employment related policies needed
- Develop the labour market information system in Cambodia.

In order to provide structural and concise information, the structure of the study is as follows: Firstly, the next part provides a brief summary of some basic information about the Cambodian labour market covering the macro economic situation, demographic trends as well as the most relevant elements of labour demand and supply. The other following parts focus on the main findings of the survey including: (i) characteristics of establishment, market development and capacity utilization within the existing workforce, (ii) employment structure and turnover, (iii) current situation of recruitment and skills shortages, and (iv) skills gaps, workforce training, and work readiness of first time job-seekers. The last part is a brief conclusion that recapitulates and highlights key findings for each sector.

2. Overview of Cambodian Labour Market

Before starting to analyze the results of the survey, it seems relevant to briefly summarize some basic information about Cambodian economy, demographic trends, as well as the most relevant elements of the evolution and structure of the education and training systems, and of the labour market. The objective is to provide the background information necessary to better interpret the results of the survey.

2.1.Economic situation

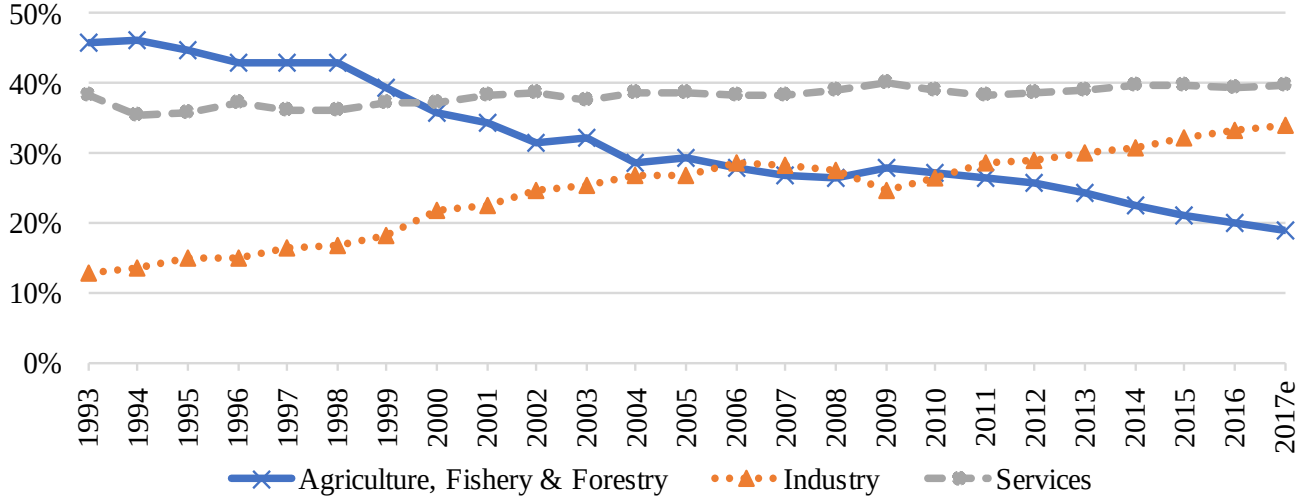
After regaining peace and stability nation-wide in 1998, Cambodian economy began to pick up and grew at a remarkably high rate, and enhanced by active open economic and export led policies. Since then, remarkable inflows of both foreign aid and foreign direct investment (FDI) have been observed. During 1998-2008, although it was affected by a violent political conflict and Asian financial crisis in 1997, Cambodia's economic performance managed to achieve an average growth rate of GDP of 9.5%, according to the data from ministry of economics and finance. During this period, the industrial sector registered the highest growth with average annual rate of 15.3%, and was followed by service sector of 10.4% and agriculture sector of only 4.5%. Although, the good performance of economic growth was negatively affected by the global financial crisis in 2008-2009, it rapidly recovered, and the average growth rate of GDP between 2009 and 2017 was around 7.0% and industry still remain the engine of growth by maintain its growth rate of 11.3%, followed by services and agriculture sector at 6.8%, and 2.1%, respectively. This had contributed to the doubling of GDP per capita from around USD 753 dollars in 2009 to about 1,435 in 2017. Consequently, in 2015, Cambodia has moved from a low-income status to a lower middle-income status as defined by the World Bank (2017).

Table 2.1: Cambodian GDP growth rates; 1993-2017

	1993-1998	1998-2008	2008-2009	2009-2017e
Agriculture, Fishery & Forestry	5.0%	4.5%	5.4%	2.1%
Industry	12.1%	15.3%	-9.5%	11.3%
Services	5.2%	10.4%	2.3%	6.8%
Annual Real GDP Growth	6.3%	9.5%	0.1%	7.0%

Source: Ministry of Economics and Finance

Figure 2.1: Cambodian GDP share by sector; 1993-2017



Source: Ministry of Economics and Finance

In addition to this vibrant performance of economic growth, dynamic changes in the economic structure and the labour market landscape in Cambodia were also remarkable. Figure 2.1 presents the value-added shares of each economic sector from 1993 to 2017. From the figure, it can be seen that the share of the

industrial sector in the GDP was almost triple between 1993 and 2017, while the share of the agriculture decreased significantly over the same period. In 2017, however, the base of Cambodia is still concentrated in a few sectors, i.e., crops, garment, construction, and tourism related sectors.

Along with this achievement of economic growth and development, a dynamic change in the labour landscape is also observed. After the fall of the Khmer Rouge regime, Cambodia experienced a baby boom in the 1980s and 1990s, in which the annual increase of the number of new births were about 401,000 in 1980-85 and 417,000 in 1990-95. As a result, the total population has increased from about 6.7 million in 1980 to an estimation of 16.3 million in 2018. The share of the population between the ages of 15 and 64 was around 64.2% of the total population and the share of population ages below 24 was around 50.2% in 2018. There is no doubt that this abundance in the young working age population has played an important role in supplying the labour force for the Cambodian economy. At the same time, this economic performance, as mentioned above, has also played an important role in job creation for a large share of the young population too. However, the labour force and labour market in Cambodia are still facing challenges and issues, as will be discussed in this report.

In addition, from the Cambodia social economic survey data, the decrease in the share of employment in the agricultural sector in total employment (aged 15-64) went from about 72.1% in 1993 to about 36.4% 2016, while the share of employment in the industrial sector increased from less than 5.0% to about 26.6% over the same period. It is evident that the employment structure in Cambodia has evolved toward a more industry-based pattern with the economic growth and development over the 1990s to 2010s.

2.2. Labour Market Situation

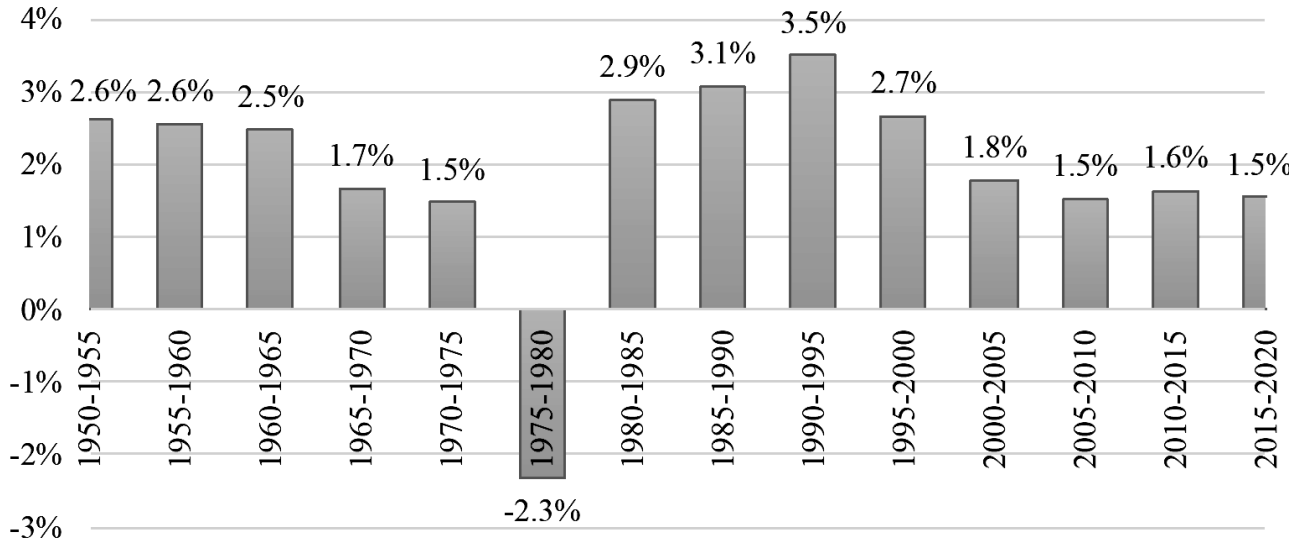
2.2.1. Demographic Trends

Before examining the current situation of labour market in Cambodia, it is important to understand its demographic trends. During the Khmer Rouge regime between 1975 and 1979, about one third of the Cambodian population died from starvation, diseases and massacre. Cambodia is currently in the "demographic transition", which is defined as the passage from a traditional demographic regime (high fertility and high mortality) to a modern demographic regime (low fertility and low mortality).

Specifically, the fertility rates in 1980-85 were 6.4%, but it progressively declined to about 2.5% in 2015-2020, whilst the deaths declined from 716 thousand to 472 thousand during the same period. In the early stage of the transition, it generates the new wave of new-born children with increasing magnitude, and followed by waves of decreasing magnitude. For instance, after the war, Cambodia experienced the baby boom in the 1980s and 1990s. The number of births climbed to its maximum yearly average value of 368 thousand in the 1980-85 period from a value of 315 thousand in the previous five-year period. But in the following years started to progressively decline, and it is now estimated at around 358.8 thousand in 2017.As a result, the total population increased from about 6.7 million in 1980 to 15.6 million in 2015.

In this situation, the trend in total population has been determined mainly by the trend in births. As shown in table below, the yearly average growth of total population has progressively declined in the last 30 years from a value of 3.0% during 1980s to a present still rather consistent value of 1.5% during 2015-2020. As a result, the total population has increased from about 6.7 million in 1980 to an estimation of 16.3 million in 2018.

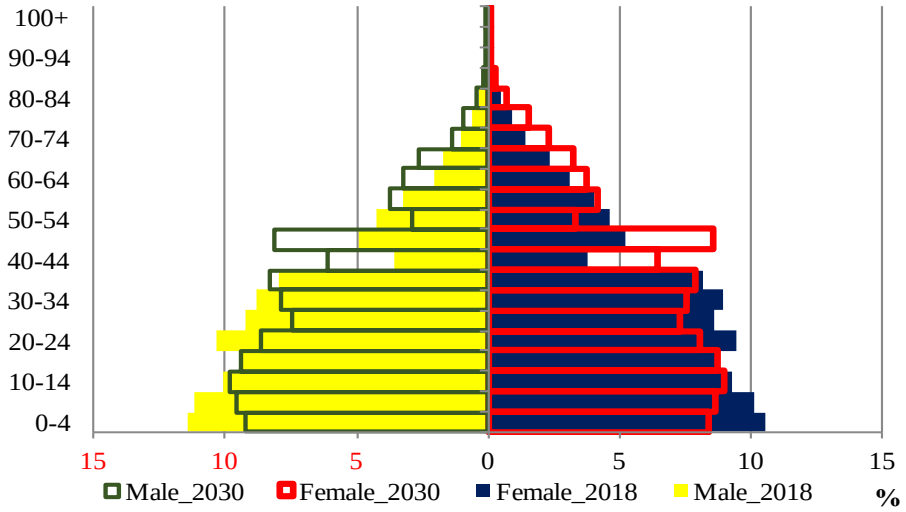
Figure 2.2: Total population; yearly average growth rate; 1950-2020



Source: United Nations Population Division, World Population Prospects: The 2015 Revision.

The population pyramid in Figure 2.3 below illustrates the population structure by age and gender in Cambodia in 2018 and 2030. For the most recent pattern in 2018, the figure indicates that the population under age 35 accounts for the very large share in the Cambodian population, accounting for 68.0% of the total population in 2018. This young and dynamic population continues to play important roles in the future, as indicated in the figure below, and can have various socio-economic consequences. It can be a good resource or a burden for Cambodia, depending on how they can be transformed into good human capital for the country's development. For gender structure, in general, the total female population size is slightly larger than that of the male population. The share of female population was around 51.2% of the total population in 2018.

Figure 2.3: Population structure by age and gender in Cambodia, 2018 and 2030

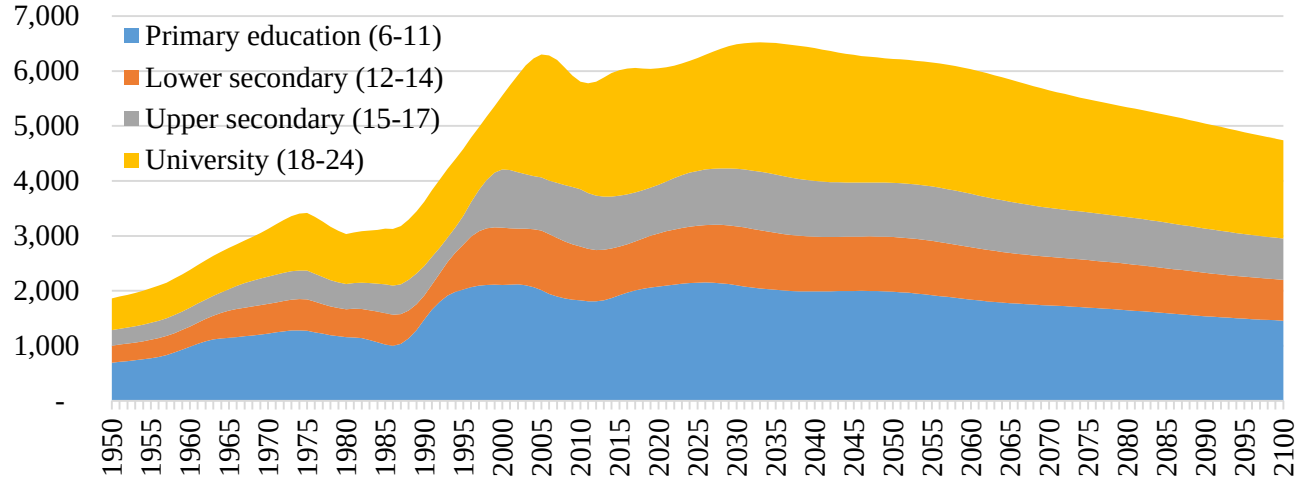


Source: United Nations Population Division, World Population Prospects: The 2015 Revision.

In the last 30 years, the abrupt demographic revolution we have just described has obliged Cambodia to face two notable demographic challenges related; the first is the increase in School Age Population (SAP), the second is the explosion of Working Age Population (WAP). The SAP, here defined between 6 and 24, and divided in 4 age-groups that correspond to the four educational levels present in Cambodia: Primary school (6-11); Lower-secondary school (12-14) (together these two age groups form the compulsory school age population); Upper-secondary school (15-17) and University (18-24).

Between 1980 and 2015, SAP had more than doubled from 3 million to 6 million due to the sudden increase in the number of births registered in 1980s. The dynamic of the four age groups has been quite different because abrupt magnitude in the number of new born children have affected these four groups in different moments in time. Obviously, it was the primary school age population that was the first to be affected by the increase in the number of births. This age group was increased more than double between 1980 and 2000 and then reached about 2 million cohorts annually between 2000 and 2015. The Lower-secondary school population followed with a maximum value of 1.08 million in 2005. It was then the turn of the upper-secondary population, in which will reach its maximum of 1.1 million during 2030-2035 and university population will peak about 2.4 million during 2035-40.

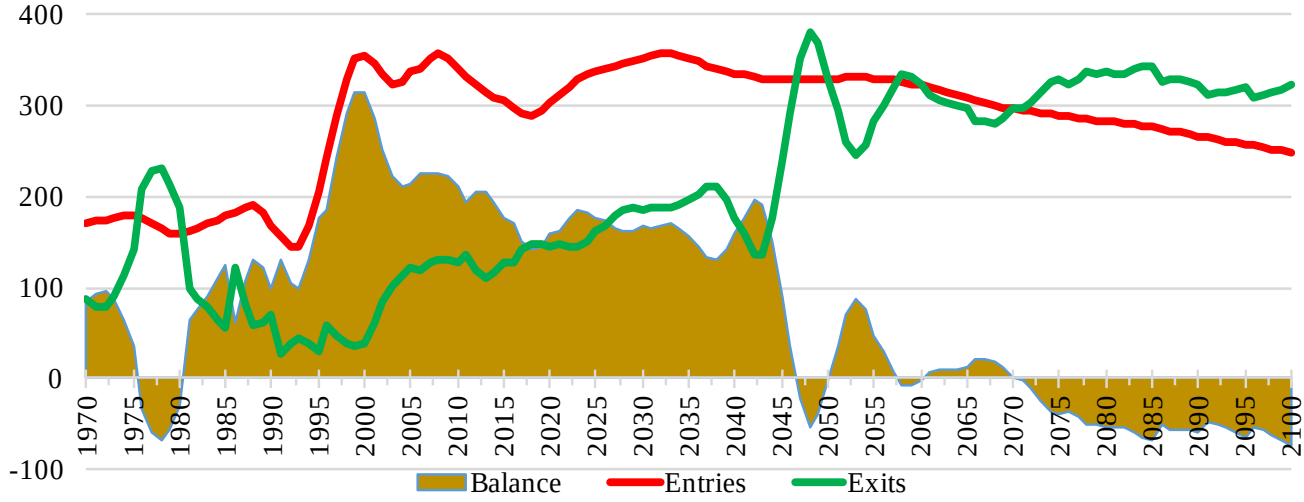
Figure 2.4: Cambodian training age population by age group; yearly values in thousands from 1950 to 2100



Source: United Nations Population Division, World Population Prospects: The 2015 Revision.

Another big demographic challenge faced by Cambodia was the extraordinary increase in working age population (WAP). WAP, aged 15-64, increased from about 4 million in 1980 to about 10.5 million in 2018. However, the annual increase in WAP had already passed its peak of about 315 thousand in 1999 (Figure 2.4). Its rate of growth has declined steadily from 4.6% in 1995-00 to 1.5% in 2015-2020. Under this demographic pressure, if the labour force participation rate remained 84.0% as in its level in 2016, Cambodian economy need to generate 118.3 thousand additional jobs in order to maintain its level of employment rate.

Figure 2.5: Cambodian WAP (15-64); annual entries, exits and total balance; 1970-2100 (in thousands)



Source: United Nations Population Division, World Population Prospects: The 2015 Revision.

WAP in Cambodia will continue to have positive growth till 2045 and then it is projected to progressively decline due to the continuing decline in both population generational entries defined by the people who become 15 years old, and balances represented by people 15 years or older who die or migrate to other countries. After that, Cambodia will probably face issues related to labour shortage, which other countries in region has already been facing such as Singapore, Malaysia and Thailand.

2.2.2. Education and Skills Attainment

As a consequence of the civil war,[1] the educational attainment of the Cambodia population remains extremely limited, in spite of the good progress registered by the educational system in the last 3 decades. The education level of population aged 15-64 has its details in table 2.2 below for each age group. The data from this table shows that there is a steady increase in school enrolment rates over time, reflected by the decrease in the share of the Cambodian labour force with no or only some education. This effect can be seen by comparing age groups of the share of labour force with none or only some education. About 9.9% of the population aged 15-64 has "none or only some education", compared to only 2.8% in the youngest age group and to 22.5% in the eldest age groups.

Table 2.2: Education level of population aged 15-64 by age group in 2016.

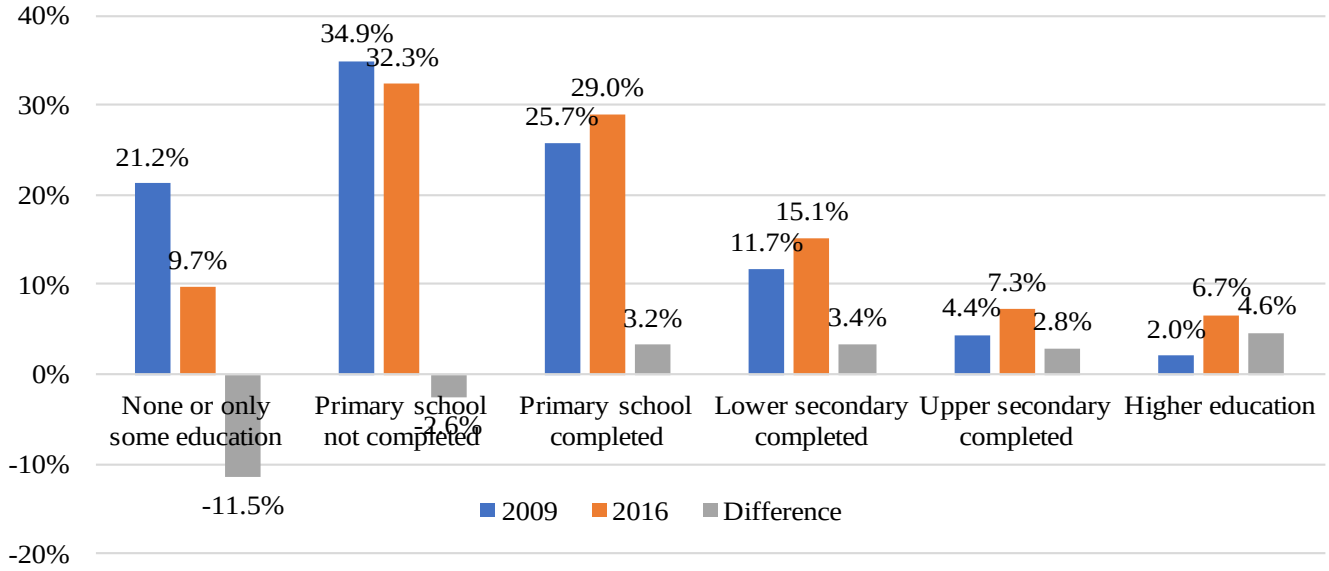
Age Group	None or only some education	Primary school not completed	Primary school completed	Lower secondary completed	Upper secondary completed	Higher education	Total
15-24	94,226	610,461	1,290,696	840,263	285,517	249,072	3,370,235
25-34	192,630	750,088	766,508	454,477	248,876	319,920	2,732,499
35-44	224,124	658,707	411,170	187,433	109,347	94,027	1,684,809
45-54	288,547	659,975	299,057	162,214	72,720	43,671	1,526,183
55-64	213,885	487,265	151,683	69,983	21,188	7,609	951,613
Total	1,013,412	3,166,497	2,919,115	1,714,370	737,648	714,298	10,265,340
Row percentage							
15-24	2.8	18.1	38.3	24.9	8.5	7.4	100.0
25-34	7.0	27.5	28.1	16.6	9.1	11.7	100.0
35-44	13.3	39.1	24.4	11.1	6.5	5.6	100.0
45-54	18.9	43.2	19.6	10.6	4.8	2.9	100.0
55-64	22.5	51.2	15.9	7.4	2.2	0.8	100.0
Total	9.9	30.8	28.4	16.7	7.2	7.0	100.0

Source: NEA's calculation based on CSES 2016

This data also suggests that, although endowed with labour surplus, Cambodia's labour force is still characterized by low-education and low-skills. 40.7% of the population aged 15-64 have no schooling or have not completed primary education, while only 14.2% have an upper secondary diploma or more. In addition to this, given the high employment to population ratio (83.9% in 2016), the educational attainment of the employed does not notably differ from that of the corresponding population. In 2009, 56.1% of the employed had less than primary education and 6.5% an upper secondary diploma or more (Figure 2.5). Between 2009 and 2014 the improvement was considerable. There were still around 42.0% of the employed that had less than primary education. Nevertheless, the percentage of people with at least compulsory education having however increased from 18.2% to 29.0%. In 2016, the push toward higher education was not yet felt and the percentage of people with higher diploma slightly increased by 4.6 percentage points.

[1] During the Khmer Rouge period, the Cambodia education system was systematically abolished: publishing houses were closed, teaching materials and textbooks destroyed, the buildings of schools and universities put to other uses. Large numbers of qualified teachers, researchers and technicians either fled the country or died.

Figure 2.6: Total employed people aged 15-64; distribution by educational attainment; 2009 and 2016



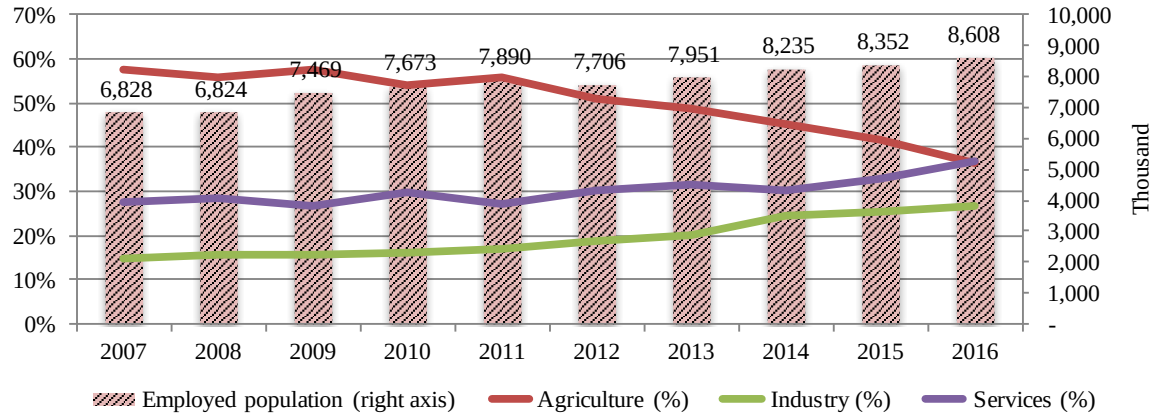
Source: NEA's calculation based on CSES 2009 and 2016

2.2.3. Employment and Demand trend

The labour force participation rate always keeps itself high at around 83.0%, while employment continues to increase. As indicated in the figure 2.6 below, the number of employed people (15-64) increased from 6.8 million in 2007 to about 8.6 million in 2016. This corresponds to the average growth rate of 2.7% during 2007-2016. By sector, agriculture employment registered a negative growth rate of 10.7%, while the employment in the service sector increased by 79.5%; and in the industrial sector grew with the highest rate of 182.7%.

Similar to the case of GDP, the share of total employment in agriculture has declined while it increased in industry (Figure 2.6). Particularly, between 2007 and 2016, the share of employment in agriculture decreased from 57.7% to 36.4%. At the same time, employment in industry increased from 15.5% to 26.6% and the share of services sector increased from 27.4% to 37.0%. In agriculture, the shift is not only exposed in term of share but also in the number of employment, showing that there is a certain movement of workforce from agriculture to other sectors, particularly to industry. Specifically, between 2007 and 2016, the economy created more than 2.6 million non-farm jobs, most of them were in the export-oriented garment sectors, of which only 31.3% were filled by workers shifting out of low-productivity agriculture.

Figure 2.7: Employed people aged 15-64 by sectors, 2004 &2007-2016



Source: NEA's calculation based on CSES 2009 and 2016

The level of employment of 8.6 million people corresponded with an employment-to-population ratio of 83.9%. The share of female worker is around 48.4%. The employment connected with agriculture, forestry and fishery was around 28.2% and 13.3% in elementary occupations. These two major-occupations register a very high percentage of people with low education. The amount of people employed in technicians and associated professionals, and professional occupation (that would require higher education) together still represent around 3.9% of total employment.

Table 2.3: Actual and Forecast Employment Growth Rate by Sector, 1993-2019

	1993-2014	1993-1998	1998-2008	2008-2009	2009-2014	2014-2019
Total	217,569	192,703	214,819	670,251	157,400	139,083
Agriculture	50,355	148,730	20,751	674,999	-113,739	-109,814
Crops	4,565	112,142	-85,114	675,210	-57,782	-26,671
Livestock & Poultry	30,742	20,883	69,520	-43,100	-22,188	-39,642
Forestry & Logging	5,105	6,601	15,876	74,551	-31,823	-17,367
Fisheries	9,943	9,103	20,468	-31,662	-1,946	-26,134
Industry	87,370	32,058	80,046	58,021	163,200	99,241
Mining	1,225	-209	-33	17,624	1,894	4,145
Food, Beverages & Tobacco	5,483	5,172	9,691	-12,270	929	-4,082
Textile, Wearing Apparel & Footwear	43,987	17,342	25,784	55,526	104,731	55,689
Wood, Paper & Publishing	4,544	2,875	16,135	-43,353	-7,390	-11,267
Rubber Manufacturing	582	-201	-20	100	2,663	1,058
Other Manufacturing	4,455	-2,875	5,643	5,840	9,131	15,237
Construction	25,389	8,600	19,877	-14,532	61,188	36,836
Utilities	1,706	1,354	2,969	49,087	-9,946	1,624
Services	79,844	11,916	114,022	-62,769	107,939	149,656
Trade	24,952	3,428	50,782	-69,004	13,607	64,580
Hotel & Restaurants	12,641	637	1,265	187,371	12,451	55,181
Transport & Communications	10,988	-1,898	15,400	-12,617	19,772	13,634
Finance	2,850	651	-143	14,842	8,637	8,258
Public Administration	4,357	380	6,366	-29,994	11,185	5,638
Real Estate & Business	12,554	-353	17,251	-36,944	25,968	8,275
Other services	11,501	9,070	23,101	-116,423	16,319	-5,911

Source: NEA's forecast based on CSES data from 1993-2014 and sectoral macro forecasting 1993-2019 of Ministry of Economics and Finance (unpublished paper)

Based on the forecasting of NEA, the annual employment growth rates are -3.0%, 4.5%, and 5.2% for agriculture, industry and services, respectively, and the overall annual employment growth rate is projected to be 1.6% during 2014 and 2019. The major observation from this work are following:

- The services sector is expected to be an important driver of employment activities in the economy for 2014-2019. The fastest employment annual growth rates are expected in services sectors of hotels and restaurants (14.9%) and finance (10.3%), and then followed by industrial sector (mining) (9.1%) and other manufacturing (6.0%). The major increases in employment (in terms of absolute number) are likely to happen in trade (64,580), garment (55,689), hotel and restaurant (55,181), construction (36,836), other manufacturing (15,237), and transport and communication (13,634), as shown in the table below.
- The structural adjustments in the agricultural sector will be important to manage the structural shifts in the economy from agriculture to manufacturing and services activities in the economy. The most significant decline in absolute and relative terms is expected for the agricultural occupation (peasant), which is expected to decrease by 243,738 annually over the period of 2014-2019. This a continuous trend which is observed over the last decade.

- We will also observe large decline in demand for employment related to 'none and only some education' in terms of relative share and absolute number. This could lead to structural unemployment in the economy.
- The share of 'none and only some education' employment dropped from 63.8% in 2003 to 47.5% in 2014, and is expected to further decline to 37.2% in 2019. In terms of absolute number, the employment linked to none or only some education is estimated to drop by half in 2019 compared to its level in 2014, which equal to 642,924. The most dramatic decline is likely to occur in agriculture, which accounting 78.0% of the total employment is declining between 2014 and 2019. As expected, this type of employment is expected to decline in industrial sector by 74,787 between 2014 and 2019, and by 62,562 in service sector.

In the future, the presence of technical skills requiring at least compulsory education plays a fundamental role in allowing Cambodia to diversify to higher value added as well as to move to high productive employment, the insufficiency of the general education system represents the primary bottleneck for the socio-economic development of Cambodia.

3. Establishments' Characteristics and Market Development

3.1. Establishments' Characteristics

This section describes the key characteristics of the establishments' populations estimated from the survey, and more specifically may or may not on their establishment and employment representation, business registration, size, occupation concentration, and ownership's nationality by sector. The observations are weighted using the establishment sampling weights or employment sampling weights in order to obtain the representative distribution of establishments or employment in the population (see details in appendix-A). The 605 sampling establishments are representing the 4,571 of total establishments, accounting for about 962,972 employments as of 2017. Briefly by sector, there are ten sectors that are undergoing investigation such as accommodation; construction; education; finance and insurance; food and beverage; garment, footwear and apparel; health; ICT; logistic, warehousing and transportation; and rubber and plastics.

First, establishments in accommodation sector share about 15% of total establishments and cover 3.7% of employment. They are mostly owned by Cambodians, and half of them were established after 2008. Furthermore, the majority of occupations in this sector concentrated on services and sales workers and elementary occupations covering about 33.9% and 24% of total employment in this sector, respectively. As for sizes of this sector, they are shared evenly among small (10-19), medium (20-99) and large (100+).

Second, construction sector comprises of only a small amount of percentage share of both establishments (2.5%) and employment (0.8%) in the sampling frame. This is due to the short-term contracts basis type of employment. Despite the small share in terms of establishments and employments distribution, construction sector is currently one of the highly demand sector in terms of goods and services and is expected to continue its increase in the upcoming year (see figure 3.1). Moreover, occupations' concentration in this sector are craft and related trades workers; plant and machine operators, and assemblers; and elementary occupations covering about 19%, 20.3%, and 19.2%, respectively. Establishments in construction sector are mostly medium and small size (63.1% & 25.4%, respectively) and about 30% are operated under private limited establishment.

Third, education sector is on the right track with the increasing number of private and public school since ownership of establishments in education sector comprises of individual proprietor and state owned which is a comparable reflection on its continuous increase in demand for services. In addition, education sector represents 2.9% of total establishments in the sampling frame and 1.5% of total employment. More than 70% of occupations in education sector are high skilled workers ranging from

technical and associated professionals up to managerial level. This sector mostly comprises of medium and large size establishments and 40% are stated owned while the rest are private owned.

Fourth, finance and insurance, which shares 9.8% of total establishments and 8% of total employment, are the most phenomenal demanded sector and surprisingly are evenly owned by Cambodians and a joint ownership with foreigners (43.3% & 32.9%, respectively). Most of finance and insurance establishments are not individual proprietors; they are either general partnership or limited partnership with 22% and 22.3% of total establishments respectively, operating in this sector. Without a doubt, the main occupations in this sector are from services and sales workers up to managerial level; naturally, clerical support workers and technical and associated professionals share the most of employment by 32.2% and 28.5%, respectively.

Fifth, establishments in food and beverage sector are mostly owned by Cambodians and are individual proprietors representing 12% of overall establishments and 1.7% of total employment. More than 70% of the establishments in this sector are in medium and large size, and the registration rate in these two sizes are considerably low/below average. In addition, occupations are concentrated on service and sales workers and elementary occupations covering about 55% of total employment in this sector.

Sixth, garment, footwear and apparel is one of the most shared establishments and employment cover up to 43.6% and 77.4%, respectively; however, the demand for goods and service for this sector increase at a slower rate compared to other nine sectors. Differing from establishments in food and beverage sector, establishments in garment, footwear and apparel sector have a low registration rate in all sizes especially in small and medium size (41.9% & 38%, respectively); in addition, most of the unregistered establishments are owned by Cambodians. Furthermore, this sector employment is concentrated on skilled manual workers, specifically 79.8% are plant and machine operators and assemblers. In addition, more than half of establishments in garment, footwear and apparel sector orient to export market either directly or through an intermediary; therefore, this sector is exposed to more external risk than any other sector.

Seventh, health sector which is mostly owned by government (66%) is consistently 100% registered in Ministry of Commerce, mostly are established before 2002 (78.3%), and the size of the establishments mostly are small (62.3%) and medium (24.6%). Notably, health sector is the most demanded sector for both goods and services given a small share of establishments (2.8%) and employment (0.9%). In addition, due to its nature, health sector employs only high skilled workers (70% of total employment within this sector).

Eighth, ICT is one the sector known for high demand of goods and services, newly established (about 70% of establishments in ICT sector were established after 2008), and the predominantly owned by foreigners. Given high demand of goods and services, more than half of total establishments in ICT sector are relatively small size; still this sector employs 1.4% of total employment and represents 4.1% of total establishments. In addition, employment in ICT sector mostly concentrates on technicians and associate professionals and service and sales worker (24.8% & 25.5%, respectively).

Ninth, logistic, warehousing and transportation whose sector share 4.3% of total establishments and employment 1% of total employments is mostly individual proprietor and private limited establishments. Furthermore, the most occupation concentration in this sector are technicians and associated professionals (16.8%), plant and machine operators, and assemblers (19.5%), and elementary occupations (25.2%), and as for sizes this sector is shared evenly.

Finally, rubber and plastics sector whose sector is mostly owned by foreigners shares 3.1% of total establishments and employs 3.4% of total employment, and is one of the most employed skill in agricultural, forestry and fishery profession (46.6%). Furthermore, in terms of demand for goods and services, this sector is not doing well, the second worse after food and beverage, given that about half of the establishments are large size.

Table 3.1: Ownership of establishments and registration rates by sectors

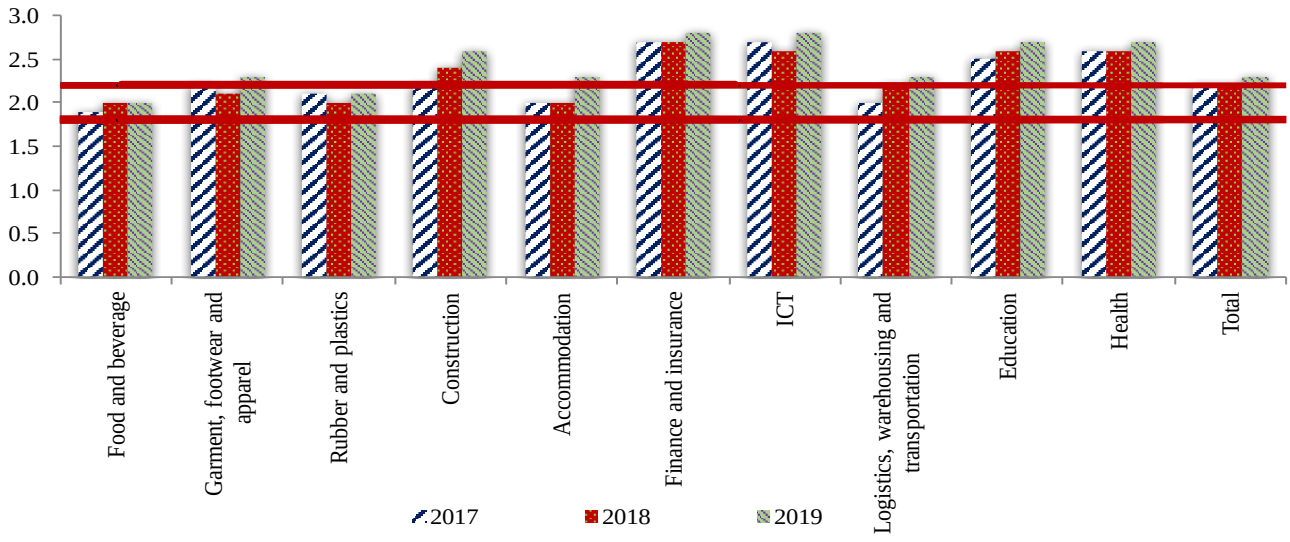
Sector	Ownership (%)			Registration Rates (%)
	Cambodian	Foreign	Joint share	
Accommodation	89.9	9.1	1.0	99.0
Construction	79.4	16.8	3.8	95.3
Education	96.2	2.3	1.5	100.0
Finance and insurance	45.1	20.7	34.2	100.0
Food and beverage	96.7	2.9	0.5	75.2
Garment, footwear and apparel	55.2	34.1	10.6	63.0
Health	87.9	4.7	7.4	100.0
ICT	42.5	39.5	18.0	98.7
Logistics, warehousing and transportation	81.2	16.6	2.2	91.8
Rubber and plastics	43.7	54.4	1.8	90.7
Total	**65.5**	**22.9**	**9.2**	**79.9**

N (total weighted establishments) = 4,571

3.2. Market Development and outlook for the coming years

The NEA's ESNS 2017 included series of questions to ask establishments to evaluate the level of demand for goods or services in 2017, and in the coming years of 2018 and 2019. This indicator could serve as the proxy of the business cycle for different sectors, as reflected by the average weighted index of demand of single establishments. The average weighted assessment of the demand for goods and services ranges between 1 and 3. The higher the value means the higher demand for goods and services compared to the previous year. In order to simplify the interpretation of this weighted value, the results are classified as following in scales: If the value is below 1.8, it means that it is in less demand, If it is between 1.8 and 2.2, it means that there is a balance between supply and demand of goods and services and if it is more than 2.2, it means that there is higher demand for goods and services.

Figure 3.1: Outlook of demand for goods and services



N (total weighted establishments) = 4,571

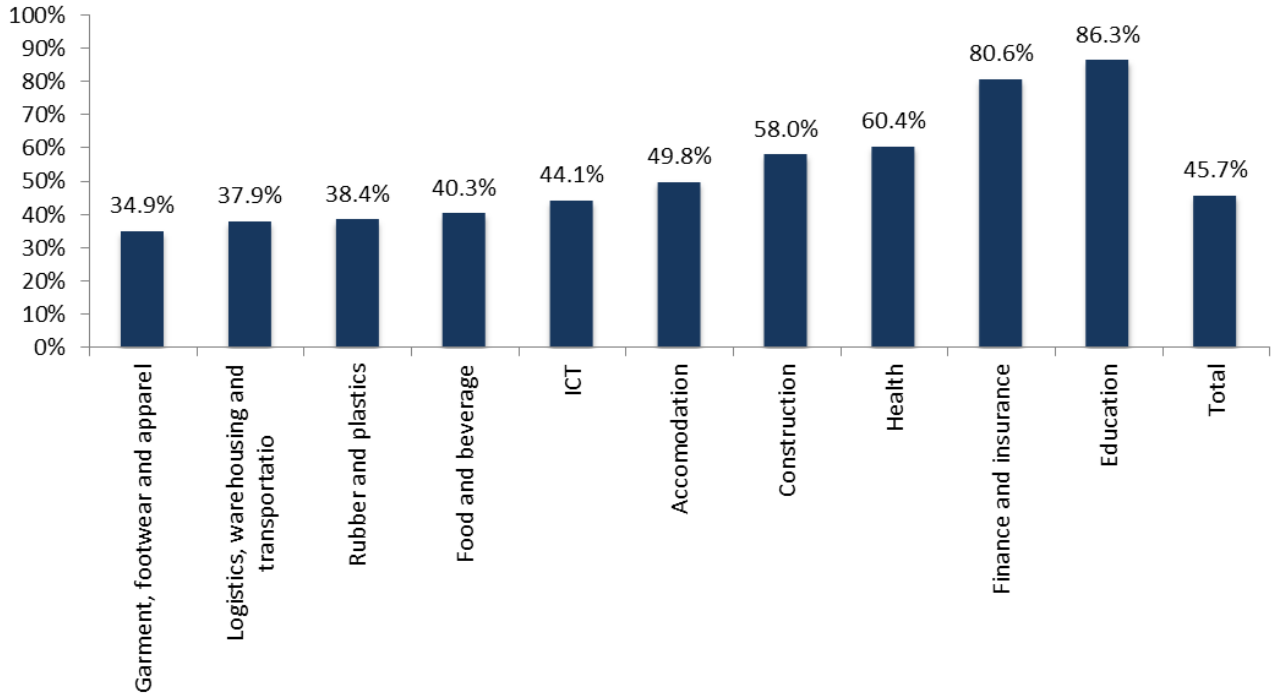
The result of survey shown that finance and insurance, ICT, education, and health sectors experienced a higher demand in 2017 compared to 2016 and are expected to have a continued high demand for both 2018 and 2019. Construction; and logistics, warehousing and transportation faced a balanced demand for goods and services in 2017, but their demands are evaluated to be on the path of increase for 2018 and 2019. For garment and accommodation, the assessment for demand was in balance in 2017, and are

expected to be in balance in 2018 and more likely to increase in 2019. At the same time, food and beverage, and rubber and plastics sector faced a balanced demand in 2017, and were evaluated to maintain same magnitude in 2018 and 2019. Overall, the aggregated demand for all these sectors was at the boundary between balance and high demand in 2017, and are expected to slightly increase in 2018 and 2019.

3.3. Business Development Strategies

Complimentary to the index of demand, the results of the survey shown consistently that the highest proportion of establishments planning to introduce new products, services or technologies, and to acquire new markets in the next year were found in education sectors 86.3% of total establishments within this sector, followed by finance and insurance (80.6%), health (60.4%), and construction (58.0%). For the other sectors, these proportions ranged between the minimum of 34.9% in garment, footwear and apparel and 49.8% in accommodation. Overall, 45.7% of all establishments planned to introduce new products, services or technologies or to expand or switch to new market in 2018.

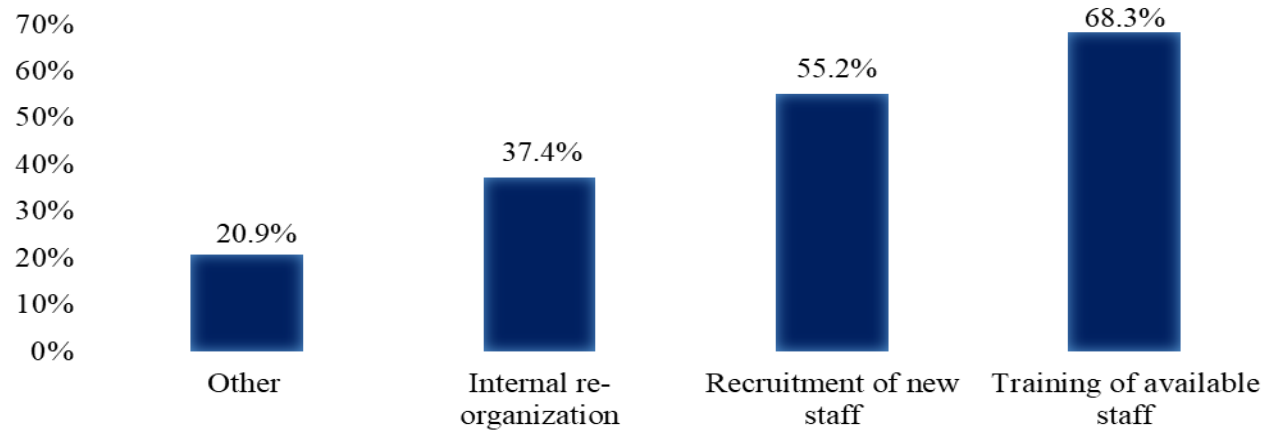
Figure 3.2: Share of establishments that planned to introduce new products, services or technologies or to expand or switch to new market



N (total weighted establishments) = 4,571

To meet the objective of introduce new products, services, or technologies, or to expand to new markets, most of the establishments (68.3%) put at first place the policy of training of their current staffs, before the policy on recruitment new staffs, or internal re-organisation to better use available staffs and competences.

Figure 3.3: Approaches that establishment intended to adopt to introduce new products, services or technologies or to expand or switch to new market



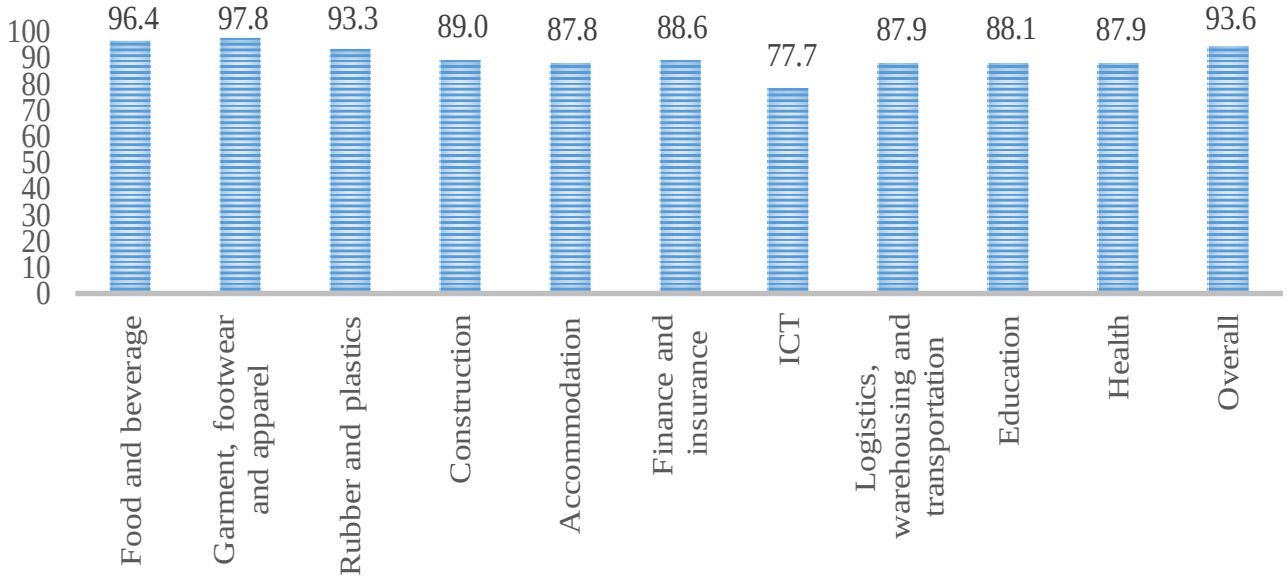
N (weighted establishments) = 2,088

3.4. Capacity Utilization

A very relevant issue identified by the survey is the level of capacity utilization among personnel in establishments operating in Cambodia. This suggests that if an establishment has a low level of capacity utilization among existing personnel or does not fully utilize the capacity of its personnel, the establishments theoretically can increase their production by improving the capacity utilization of its workers before recruiting additional staff. In contrast, if it is high, the establishments can only increase the productions or expansion of their business activities by recruiting new workers. In overall, the establishments indicated that capacity utilization among their existing personnel was about 93.6%. The level of this capacity utilization varied quite modestly from one sector to another ranging. The highest value was found in the garment, footwear, and apparel sector at 97.8%, while the lowest one was in ICT sector at 77.7%.

Combining this data with the index of demand for goods and services, overall establishments will most likely recruit new, additional workers to increase their productivity in order to respond to future demand in 2017, particularly establishments in the garment, footwear and apparel; food and beverage; and rubber and plastics.

Figure 3.4: Capacity utilization among personnel by sector



N (total weighted establishments) = 4,571

4. Demand of Labour Employment Growth by Sector

One noteworthy observation that emerged from the survey was the positive employment growth between 2016 and 2017 and its expectation for the upcoming two years 2018 and 2019. Between 2016 and 2017, the total employment level of ten sectors increased by a positive growth rate of 1.5%, approximately 14,123 additional jobs and it is expected to continue its increasing trend with an annual growth rate of 2.2% between 2017 and 2019, equivalent to the annual creation of 21,546 additional jobs.

Of course, the expected growth is different among sectors. The sector that was estimated to have the fastest annual growth rate for 2017-2019 is food and beverage sector (7.5%), followed by finance and insurance (5.7%), and ICT sector (5.7%). The garment, footwear and apparel sector, with the largest share of employment, also was estimated to a positive annual growth rate of 1.5% from 2017 to 2019. Other sectors were also expected to have positive growth rates; ranging from 4.0% in accommodation to the lowest one of 1.3% in the construction sector.

The largest contribution to employment growth between 2017 and 2019 is expected to come from the garment, footwear and apparel sector (52.6%), followed by finance and insurance (21.5%), and food and accommodation (6.9%) as complementary to their high expectation on demand for goods and services as discussed in previous section.

Table 4.1: Employment growth by sector

Sector	2016	2017	2018	2019	2017-2019		
					Annual absolute change	Annual growth rate (%)	Contribution to change (%)
Food and beverage	16,815	17,035	17,788	19,672	1,319	7.5	6.1
Garment, footwear and apparel	742,737	742,944	760,399	765,630	11,343	1.5	52.6
Rubber and plastics	30,760	32,858	34,763	34,911	1,026	3.1	4.8
Construction	7,135	7,542	7,624	7,743	101	1.3	0.5
Accommodation	34,652	36,680	38,534	39,633	1,476	4.0	6.9
Finance and insurance	73,882	78,611	83,822	87,863	4,626	5.7	21.5
ICT	12,757	14,012	15,429	15,639	814	5.7	3.8
Logistics, warehousing and transportation	9,010	10,233	10,867	10,902	334	3.3	1.6
Education	13,378	14,561	14,757	15,176	308	2.1	1.4
Health	7,724	8,497	8,775	8,896	199	2.3	0.9
Total	**948,850**	**962,972**	**992,757**	**1,006,064**	**21,546**	**2.2**	**100.0**

N (total weighted employment) = 962,972

4.2. Employment Structure

It is also important to look at the employment structure of the selected sector in order to understand the level of skill required. An analysis by ISCO major occupation shows that the skill level required for the jobs was quite low. Plant and machine operators accounting for 62.2% had the largest share. Craft and related trades workers; and elementary occupations accounted for another 15.4% of the workers. In the occupations that require at least a high school diploma, technicians accounted for 4.8% of the total employments, professionals for 3.4%, and managers for 3.7%.

The proportion of female in the total employment is about 58.3%. The highest proportion is found in elementary occupations for 71.4% and the lowest one is craft and related trades workers for 31.0%. However, the majority of female worked as plant and machine operators, and assemblers mostly due to high number of this occupation in garment sector.

Foreign workers accounted for 1.4% of total employment. However, the majority of them work in managerial position 61.6%, which equals to 22.6% of employed people in this type occupation.

Table 4.2: Distribution of employment by ISCO major group, sex and nationality in 2017

Occupational group	Absolute value				Column percentage			
	Total_female	Total_male	Foreign workers	Total	Total_female	Total_male	Foreign workers	Total
Managers	16,305	19,723	8,137	36,028	2.9%	4.9%	61.6%	3.7%
Professionals	10,104	22,162	1,780	32,267	1.8%	5.5%	13.5%	3.4%
Technicians and associate professionals	17,574	28,518	1,259	46,092	3.1%	7.1%	9.5%	4.8%
Clerical support workers	23,045	20,549	319	43,594	4.1%	5.1%	2.4%	4.5%
Service and sales workers	15,615	19,019	95	34,634	2.8%	4.7%	0.7%	3.6%
Skilled agricultural, forestry and fishery	11,243	11,246	-	22,489	2.0%	2.8%	0.0%	2.3%
Craft and related trades workers	14,718	32,836	24	47,554	2.6%	8.2%	0.2%	4.9%
Plant and machine operators, and assemblers	381,029	218,227	1,411	599,256	67.8%	54.4%	10.7%	62.2%
Elementary occupations	72,139	28,919	187	101,058	12.8%	7.2%	1.4%	10.5%
Total	561,773	401,199	13,213	962,972	100.0%	100.0%	100.0%	100.0%

Occupational group	Row percentage			
	Female	Male	Foreign workers	Total
Managers	45.3%	54.7%	22.6%	100.0%
Professionals	31.3%	68.7%	5.5%	100.0%
Technicians and associate professionals	38.1%	61.9%	2.7%	100.0%
Clerical support workers	52.9%	47.1%	0.7%	100.0%
Service and sales workers	45.1%	54.9%	0.3%	100.0%
Skilled agricultural, forestry and fishery	50.0%	50.0%	0.0%	100.0%
Craft and related trades workers	31.0%	69.0%	0.0%	100.0%
Plant and machine operators, and assemblers	63.6%	36.4%	0.2%	100.0%
Elementary occupations	71.4%	28.6%	0.2%	100.0%
Total	58.3%	41.7%	1.4%	100.0%

N (total weighted employment) = 962,972

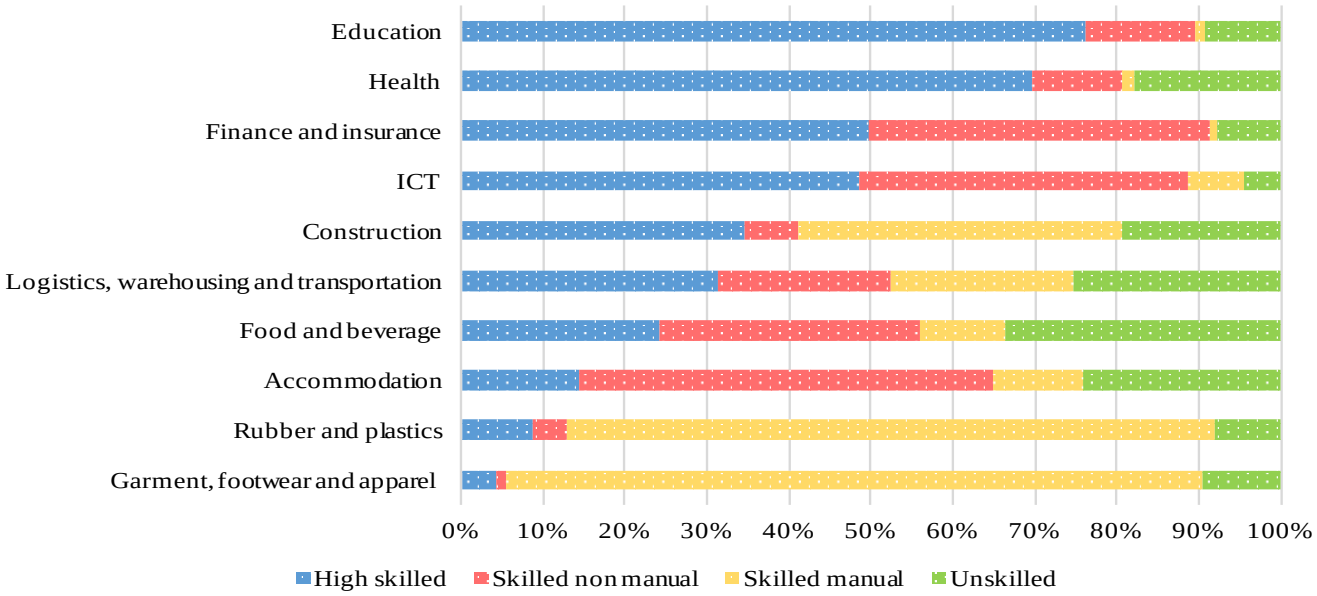
The workforce structure by major occupation differed substantially between sectors. Hence, in order to illustrate the characteristics of each sector in relation to education and skill level, the nine ISCO major groups were regrouped into four broad occupation groups.

Table 4.3: Classification of four broad occupation groups

Broad occupation group	ISCO major group	Skill level
High skilled	ISCO_1: Managers ISCO_2: Professionals ISCO_3: Technician and associated professionals	Tertiary (ISCED 5-6)
Skilled non-manual	ISCO_4: Clerical support workers ISCO_5: Service and sale workers	Secondary (ISCED 2-4)
Skilled manual	ISCO_6: Skilled agricultural, forestry, and fishery workers ISCO_7: Craft and related trades workers ISCO_8: Plant and machine operators and assemblers	
Unskilled	ISCO_9: Elementary occupations	Primary (ISCED 1)

The result, shown in figure 4.1, illustrates that the more educated segment of the labour force (high skilled) played major roles in the education (76.2%), health (69.8%), finance and insurance (49.6%), ICT sector (48.5%), construction (34.6%), and logistic (31.3%). Skilled non-manual was predominant in accommodation (50.6%), and also played consistent roles in finance and insurance sector (41.8%), and the ICT (40.3%). The garment (85.1%), and food and beverage (78.9%) sector specialized in skilled manual workers. This group of occupation also plays a major role in construction (39.6%). At the same time, unskilled labour represented the majority of employment in the food and beverage (33.5%), logistic (25.2%), accommodation (24.0%). The detailed distribution of employment by ISCO major group and sector is presented in appendix D.

Figure 4.1: Share of employment by broad occupation group and sector in 2017



N (total weighted employment) = 962,972

4.3. Turnover Rates by Sector and Occupation

Staff turnover is a natural part of business in each sector; however, a high staff turnover rate can be a serious obstacle to productivity, quality, and profitability (related costs of new recruitment and training). The turnover rate is defined by the percentage of staff in a workforce that leaves during a certain period of time. According to the survey, the average turnover rate of ten investigated sectors was 16.5% during 2017, and this is higher compared to 13.7% in 2016. In 2017, the highest turnover rate (22.5%) was found in accommodation sector, followed by rubber and plastics (18.8%), and garment, footwear, and apparel sector (17.2%). The other sectors had turnover rate below the average; with the lowest rates found in the sector of education, and health (figure below). Overall, the employers seem to be optimistic and expect the turnover rate to be lower in 2018 around 6.2%. The expected turnover rate in 2018 has quite the same pattern as the previous year (2017): high rate for accommodation, and rubber and plastics sector; and low rate for education and health sector. However, it is important to note that garment, footwear, and textile is more optimistic than others to expect its turnover rate to go down to 5.3%, which is lower than the average of last years.

Figure 4.2: Average turnover rates

N (total weighted employment) = 962,972

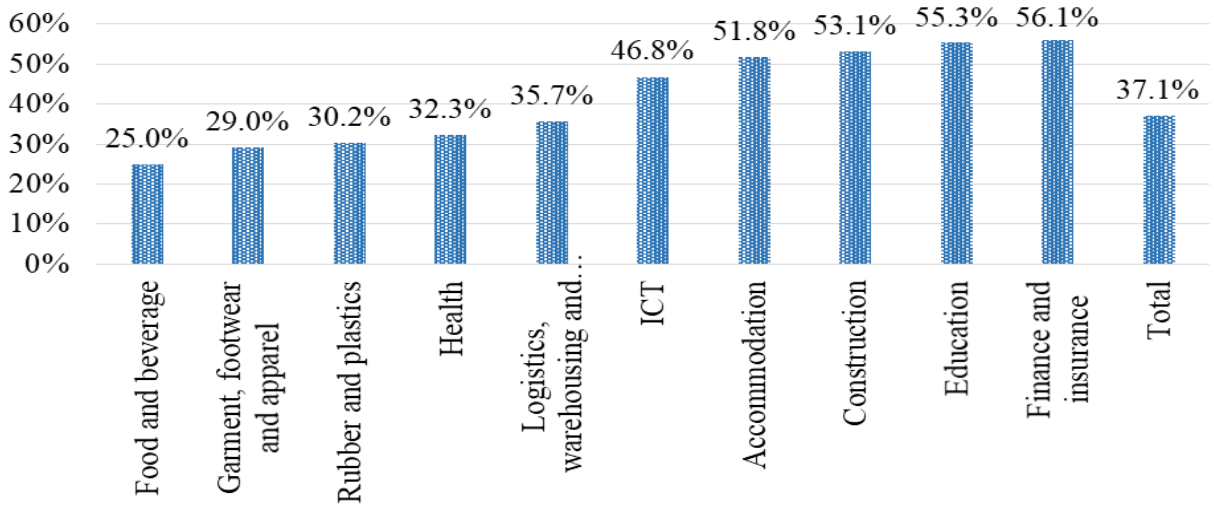
5. Recruitment Situation

This section discusses the current recruitment situation and defines hard-to-fill vacancies and skills shortages in the Cambodian labour market in the selected sectors. Specifically, it illustrates and evaluates the abilities of the Cambodian labour market to respond to labour demand by employers, and the level of hard-to-fill vacancies. Moreover, it identifies the causes of recruitment difficulties in each ISCO major and in each selected sector. Last but not least, it examines the effects of hard-to-fill vacancies on business prospects, and the measures used to address those problems.

5.1. Incidence and Density of Vacancies by Sector

More than one third of the establishments (37.1%) declared available vacancies, a decrease by 17.3% compared to the previous survey. However, the percentage varied between different sectors as shown in the figure below. Finance and insurance sector stood in the first rank and the last ranks was food and beverage sector.

Figure 5.1: Share of establishment with at least one vacancies by sector



N (total weighted establishments) = 4,571

The table below refers to the distribution of vacancies and the density of vacancies, as measured by the ratio of vacancies to total employment by sector. Job vacancies in 2017 were reported at 6,421 vacancies during the fieldwork of survey, a decrease of 2,376 vacancies compared to 2015. This decline was mainly due to the lower labour demand in garment, footwear and apparel of -3,388. However, the garment, footwear and apparel sector is still main sector of driven employment, since it alone already took 31.4% of the share due to its high number in total employment in the sector compared to other sectors, and it was followed by accommodation (21.2%), and finance and insurance (19.0%). At the same time, the share of other sectors ranged between 5.7% in logistic, warehousing, and transportation and the lowest proportion of 1.4% in health. In terms of density, accommodation (11.3%) and food and beverage (7.2%) sectors were in the first and second places, respectively. The garment, footwear and apparel sector, which had the largest share of vacancies, recorded about 2.2% in terms of density of vacancies. In general, the vacancy density was 4.0%.

The survey also pointed out that the available vacancies reported by ten sectors were concentrated in three main ISCO groups: plant and machine operators, and assemblers (32.1%), which is mainly driven by its high number in garment, footwear, and apparel sector which already took 90.1% of the available vacancies in this sector, technical and associated professionals (18.5%), and sale and services workers (16.4%).

Table 5.1: Distribution and density of vacancies by sector

Sector	Distribution (%)	Density (%)
Accommodation	21.2	11.3
Construction	2.5	4.6
Education	5.5	5.4
Finance and insurance	19.0	6.2
Food and beverage	5.5	7.2
Garment, footwear and apparel	31.4	2.2
Health	1.4	2.1
ICT	3.8	5.1
Logistics, warehousing and transportation	5.7	6.8
Rubber and plastics	4.0	3.4
Total	**100.0**	**4.0**

The result differs when the analysis is broken down by each sector. For instance, the proportion of available vacancies associated with professionals was very high for education (76.3%) and health sector (76.1%), but extremely low in rubber and plastics (0.4%); garment, footwear and apparel (0.5%); and accommodation (1.9%).

Table 5.2: Distribution of vacancies by sector and occupation

Sector	ISCO_1	ISCO_2	ISCO_3	ISCO_4	ISCO_5	ISCO_6	ISCO_7	ISCO_8	ISCO_9	Total
Accommodation	0.1	1.9	2.3	37.6	42.8	0.3	1.8	0.2	12.9	100.0
Construction	0.6	19.6	14.1	4.3	3.7	0.0	9.8	1.2	46.6	100.0
Education	1.1	76.3	5.4	6.9	8.0	0.0	1.7	0.0	0.6	100.0
Finance and insurance	0.4	2.6	84.0	7.4	5.0	0.0	0.0	0.0	0.6	100.0
Food and beverage	0.6	8.8	1.7	1.7	62.7	0.0	9.7	2.3	12.5	100.0
Garment, footwear and apparel	0.0	0.5	0.3	1.0	0.9	0.0	4.5	90.1	2.6	100.0
Health	3.4	76.1	12.5	4.5	2.3	0.0	1.1	0.0	0.0	100.0
ICT	0.8	42.9	21.1	3.2	21.5	0.0	10.5	0.0	0.0	100.0
Logistics, warehousing and transportation	0.8	2.2	2.2	7.9	18.5	0.0	0.0	60.8	7.6	100.0
Rubber and plastics	0.0	0.4	0.4	0.4	4.7	89.5	0.0	4.7	0.0	100.0
Total	0.3	9.0	18.5	10.9	16.4	3.6	3.1	32.1	6.0	100.0

Note:

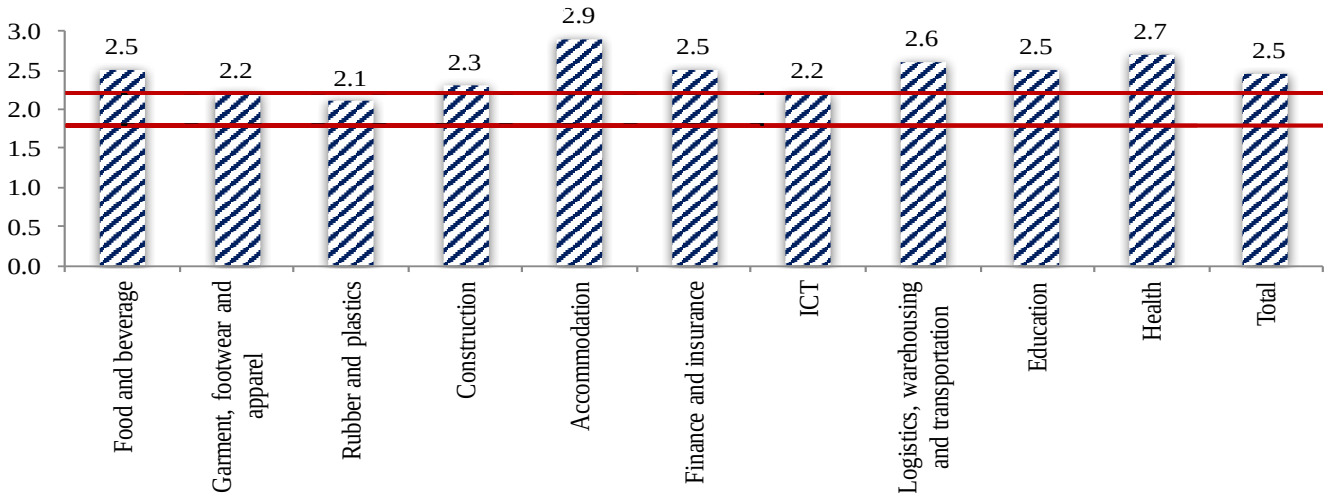
ISCO_1: Managers
ISCO_2: Professionals
ISCO_3: Technical and associated professionals
ISCO_4: Clerical support workers
ISCO_5: Service and sales workers
ISCO_6: Skilled agricultural, forestry, and fishery workers
ISCO_7: Craft and related trades workers
ISCO_8: Plant and machine operators, and assemblers
ISCO_9: Elementary occupations
n (unweighted establishment with vacancies) =294

5.2. Recruitment Difficulties by Sector

Overall, the recruitment situation was evaluated to be difficult as reflected by the index value of 2.5. Some sectors might have more difficulties in recruitment than others, and vice versa. The sectors that faced high recruitment difficulties, where indexes were above 2.2, were accommodation; health; logistics, warehousing, and transportation; food and beverage; finance and insurance; construction, and education. The recruitment situation in garment, footwear, and apparel; and ICT sectors were in the boundary between difficult and balance, between demand and supply of labour. At the same time, for rubber and plastics sector, the recruitment situation is in the balance between demand and supply of labour. However,

the higher index of recruitment situation also means better opportunities for work, from the perspective of a jobseeker. According to the result, there were good opportunities for jobs in those ten sectors.

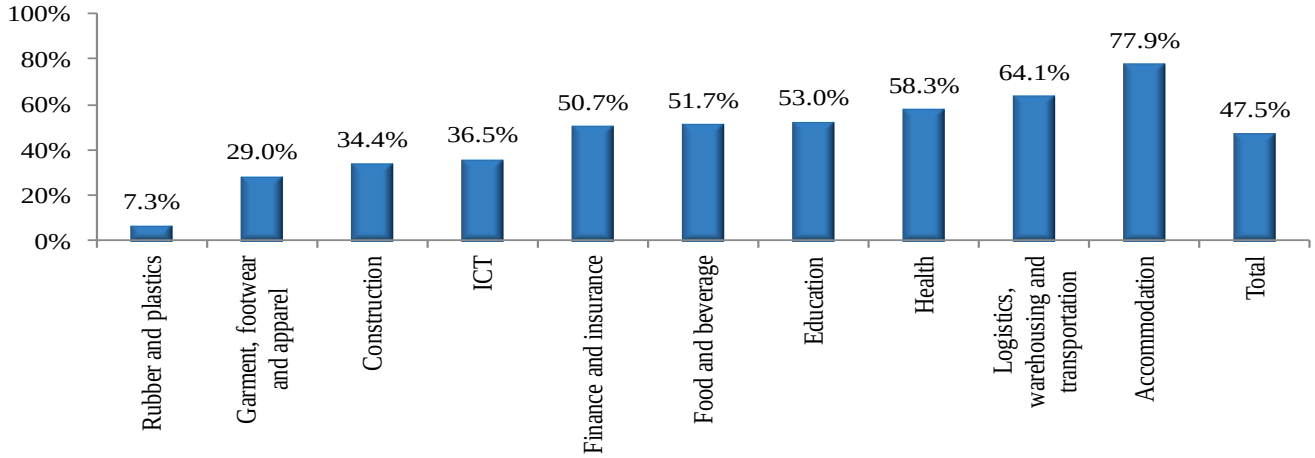
Figure 5.2: Index of recruitment difficulties by sector



N (weighted establishments with hard-to-fill vacancies) = 1,696

The study also reported that around 47.5% of establishments with vacancies claimed to have experienced recruitment difficulties. This proportion was varied across sectors from the highest value of 77.9% in accommodation sector to the minimum of 7.3% in rubber and plastic sector, as shown in the figure below. In addition, share of establishments reporting hard to fill vacancies above average are finance and insurance; food and beverage; education; health; logistics, warehousing and transportation; and accommodation.

Figure 5.3: Share of establishments reporting hard to fill vacancies (% of establishments with at least one vacancy)



N (weighted establishments with hard-to-fill vacancies) = 1,696

Regarding the density, as shown in figure below, in total, 31.7% of available vacancies were considered as hard to fill. It means that among 10 available vacancies, 3 vacancies were difficult to fill. As indicated in the table below, the highest percentage of hard-to-fill vacancies (density of hard-to-fill vacancies) was found in finance and insurance (70.1%), followed by ICT (57.9%), and food and beverage (54.7%). On the other hand, the top three with lowest density of hard-to-fill vacancies were rubber and plastics (1.2%), logistics (9.0%), and garment (10.7%). Notably, more than half of establishments in accommodation sector, which is one of the highest turnover rate sector and is also facing very high recruitment difficulties; consequently, experiencing hard-to-fill vacancies (31.7%) (See figure 4.2 & table 5.3). At the same time,

density of hard to fill for other sectors varied between the proportions of 25.7% in education to 37.5% in health. However, when we look at the distribution of hard-to-fill vacancies by sector, about 70% of them were concentrated in finance and insurance, accommodation, and garment, footwear and apparel.

Table 5.3: Distribution and density of hard to fill vacancies by sector

Sector	Distribution (%)	Density (%)
Accommodation	21.1	31.5
Construction	2.1	26.4
Education	4.4	25.7
Finance and insurance	42.0	70.1
Food and beverage	9.4	54.7
Garment, footwear and apparel	10.6	10.7
Health	1.6	37.5
ICT	7.0	57.9
Logistics, warehousing and transportation	1.6	9.0
Rubber and plastics	0.1	1.2
Total	**100.0**	**31.7**

By occupational classification, about 70% of total hard-to-fill vacancies were in technical and associated professionals, service and sale workers, and professionals (see table 5.4). This suggests that the vacancies that were more difficult to fill were those that required the skilled.
The vacancies which were difficult to fill were measured by density of hard-to-fill vacancies: the vacancies that were likely hard-to-fill were those of technician and associate professionals (70.2%), managers (61.9%), service and sale workers (41.9%), elementary occupations (30.6%), clerical and support workers (27.1%), craft and related trades workers (22.3%), plant and machine operators and assemblers (8.9%), and skill agricultural workers (0.9%). The details of hard to fill vacancies by sectors and occupations is reported in table in appendix D.

Table 5.4: Distribution and density of hard to fill vacancies by occupation

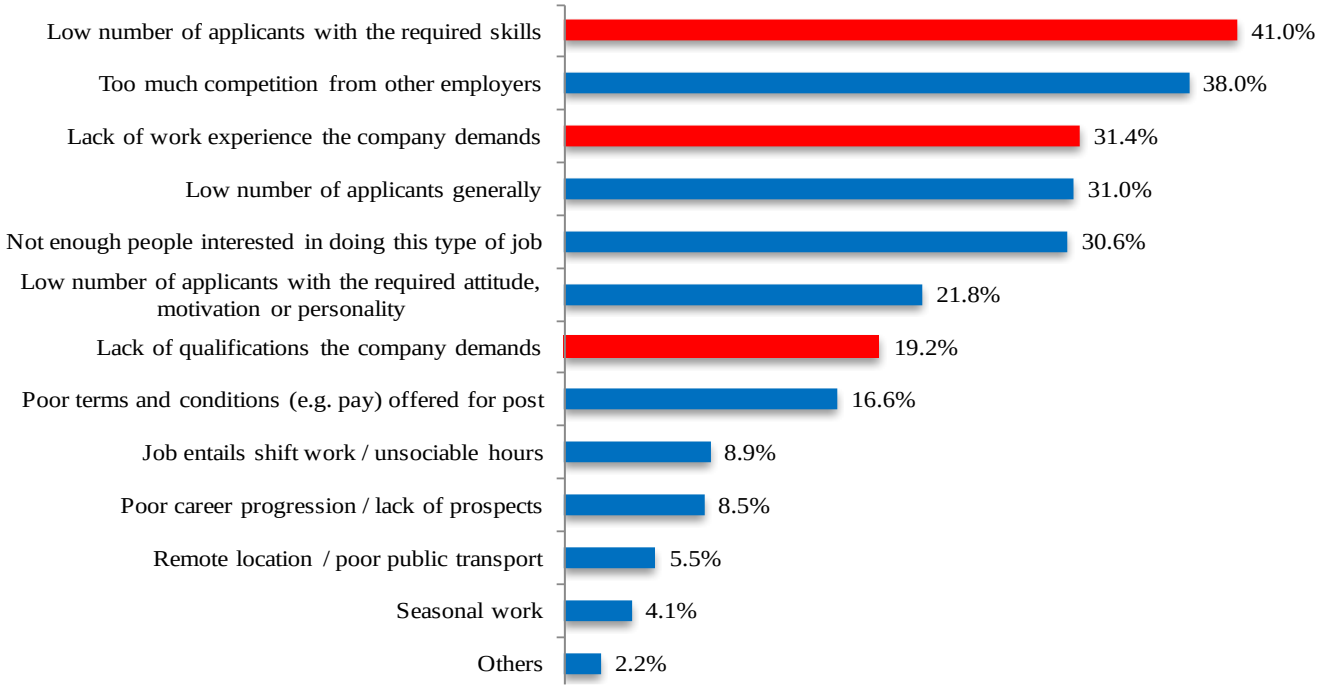
ISCO major group	Distribution (%)	ISCO major group	Density (%)
Technical and associated professionals	40.7	Technical and associated professionals	70.2
Service and sales workers	21.1	Managers	61.9
Professionals	11.2	Service and sales workers	41.0
Clerical support workers	9.3	Professionals	39.1
Plant and machine operators, and assemblers	9.0	Elementary occupations	30.6
Elementary occupations	5.8	Clerical support workers	27.1
Craft and related trades workers	2.2	Craft and related trades workers	22.3
Managers	0.6	Plant and machine operators, and assemblers	8.9
Total	**100.0**	**Total**	**31.8**

There are several reasons behind those hard-to-fill vacancies matter. Understanding these causes is an essential precondition to design and introduce active measures aimed at easing the recruitment problems and improving the functioning of the labour market.

When asked why vacancies were hard to fill, the most usual cause (41.0%) was low number of applicants with the required skills (see figure 5.4). This first reason suggested that the education system has not yet produced enough skilled workers to respond to the demands of employers. The second reason was there were too much competition from other employers. The third reason was linked to the lack of work experiences the company demands. Low number of applicants in general and not enough people interested in doing the job ranked in four and five, which was reported by 31.0% and 30.6% of establishments, respectively. However, as seen in the figure below, it seemed to be not really related to seasonal work,

remote location/poor public transport, or poor career progression/lack of prospects, or unsociable hours of the jobs. It was possibly more related to poor terms and conditions (e.g. pay) offered for the post.

Figure 5.4: Causes of hard to fill vacancies (% of establishment reporting hard to fill vacancies)



Note:

- The figure shows the proportion of hard-to-fill vacancies caused by each factor reported by employers.
- The sum of percentages exceeds 100% because of multiple choices.

n (unweighted establishments with hard-to-fill vacancies) = 158

In overall, the perceived causes of hard-to-fill vacancies vary according to sector (see table in appendix D), notable differences include:

- Too much competition from other employers was very pronounced in accommodation, finance and insurance, garment, health, ICT, and logistics.
- Not enough people interested in doing this type of job was more likely to cause hard-to-fill vacancies in accommodation, finance and insurance, health and ICT
- The low number of applicants with the required skills was pronounced in in accommodation, education, finance and insurance, garment, health, ICT, and rubber and plastics.
- Low of number of applicants in general caused the main problem of hard-to-fill vacancies for the sector of accommodation, education, food and beverage, and garment.
- Lack of work experience demanded by the company was particularly to cause hard-to-fill vacancies in the accommodation, construction, education, garment, health, and ICT.
- Low number of applicants with the required attitude, motivation or personality and poor career progression/lack of prospects caused the major problems of hard-to-fill vacancies for the sector of food and beverage.

The analysis of causes by skills by ISCO provides some remarkable notes as following (see table in appendix D for details):

- For managers: Low number of applicants with the required skills, low number of applicants generally, and lack of qualifications the company demands.
- For professionals: Low number of applicants with the required skills, and lack of work experience the company demands.

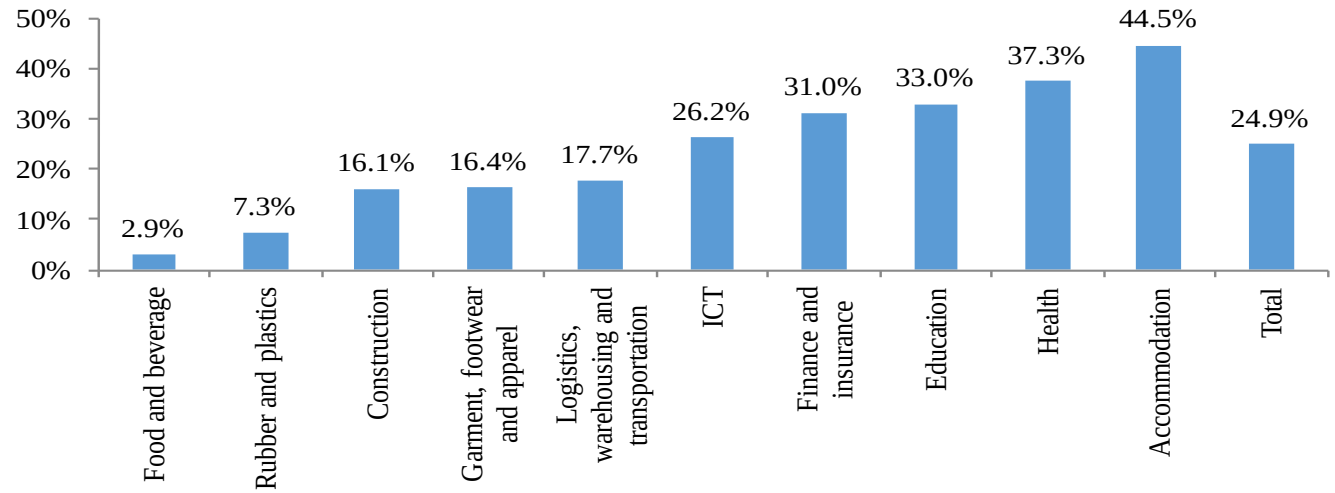
- For technical and associated professionals: Not enough people interested in doing this type of job, low number of applicants with the required skills, and lack of work experience the company demands
- For clerical support workers: Too much competition from other employers, not enough people interested in doing this type of job, Low number of applicants with the required skills, and low number of applicants generally.
- For service and sales workers: Too much competition from other employers, not enough people interested in doing this type of job, and low number of applicants with the required skills
- Craft and related trades workers: Too much competition from other employers, low number of applicants with the required skills, and lack of work experience the company demands
- Plant and machine operators, and assemblers: Too much competition from other employers, and low number of applicants generally.
- Elementary occupations: Too much competition from other employers, not enough people interested in doing this type of job, and low number of applicants generally

5.3. Skills Shortages by Sector

The recruitment difficulties are quite commonly caused by issues relating to the quality of applicants, along with other contextual factors such as terms and conditions offered for the post, career progression perspectives, or location....*The hard-to-fill vacancies caused specifically by the lack of skills, qualifications, and/or experience among the applicants are considered as "skills shortages vacancies" (see appendix B).*

The figure below shows the information on the share of establishments with skills shortage vacancies. About one-fourth of total establishments experience skills shortages (24.9% of establishments with at least one vacancies). Notably, the highest of proportion of establishment facing skills shortages was found in accommodation with 44.5% of establishments with at least one vacancies, followed by health with 37.3% and education with 33.0%. In addition to accommodation sector, it is worth highlighting that a high share of establishments with skills shortage result in a high turnover rate as discussed in previous section. Finance and insurance, and ICT sectors followed with the proportion above the average level of 31.0% and 26.2%, respectively. At the same time, the percentages of the other sector were between 17.7% in logistics and 2.9% in food and beverage sector, as shown in the figure below.

Figure 5.5: Share of establishments with skills shortage vacancies (% of establishments with at least one vacancy)



N (weighted establishments with skills shortage vacncies) = 1,696

The following table gives the information on distribution and density of skills shortage by sector. In terms of distribution of skills shortage vacancies, the majority of skills shortage vacancies were

concentrated in accommodation (27.7%), finance and insurance (26.3%), garment, footwear and apparel (10.9%), and ICT (10.8%); resulting in a high turnover rate among these four sectors. While, in terms of density of skills shortage vacancies, it differed between sectors and the highest value was found in ICT sector with 32.4% of total vacancies within this sector.

Table 5.5: Distribution and density of skills shortages vacancies by sector (% of total vacancies)

Sector	Distribution (%)	Density (%)
Accommodation	27.7	15.1
Construction	3.0	13.5
Education	7.7	16.3
Finance and insurance	26.3	16.1
Food and beverage	8.9	18.8
Garment, footwear and apparel	10.9	4.0
Health	2.4	20.5
ICT	10.8	32.4
Logistics, warehousing and transportation	2.0	4.1
Rubber and plastics	0.4	1.2
Total	100.0	11.6

On the other hand, it is worth noting that the occupations that had highest density of skills shortage are managers (47.6%), professionals (21.5%), clerical support workers (20.4%), and technical and associated professionals (18.5%). In terms of distribution, the highest share was found in technical and associated professional at 29.4%, followed by clerical support workers at 19.2% and services and sale workers at 17.6%, as shown in the table below. The analysis of skills-shortage vacancies by major occupation and sector, as shown in table in appendix D, suggested that the skills shortages affected:

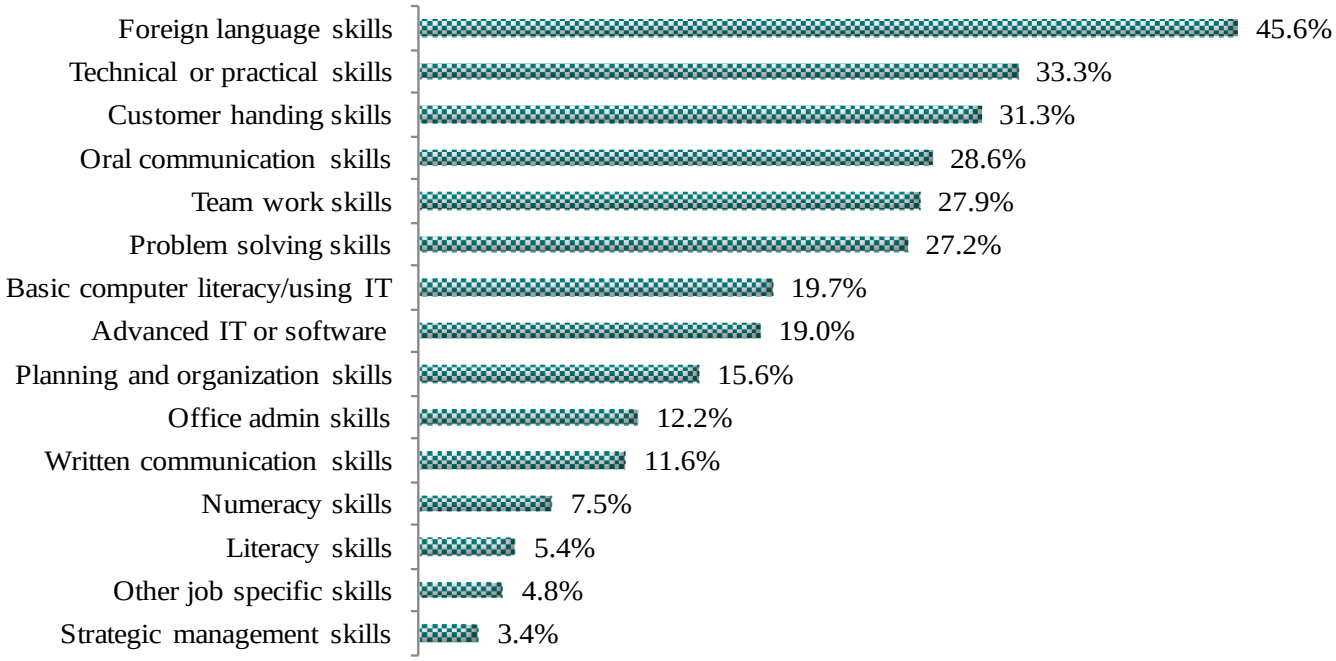
- in accommodation, mainly clerical and support workers (65.5%), followed by service and sales workers (20.4%);
- in construction, professionals (68.2%) and technicians and associated professionals (22.7%);
- in education, professionals (87.7%);
- in finance, technicians and associated professionals (87.2%), and service and sales workers (10.2%);
- in food and beverages, service and sales workers (71.2%), and elementary occupations (22.7%);
- in garment, plant and machine operators (67.9%), and professionals (13.6%);
- in health, professionals (44.4%), technicians and associated professionals (22.2%), managers (16.7%), and service and sales workers (11.1%);
- in ICT, professionals (40.0%), technicians and associated professionals (33.8%), and service and sales workers (22.5%);
- in logistics, plant and machine operators (46.7%), managers (20.0%), and professionals (20.0%);
- and in rubber and plastics, service and sales workers (66.7%), and professionals (33.3%).

Table 5.6: Distribution and density of skills shortages vacancies by occupation (% of total vacancies)

ISCO major group	Distribu-tion (%)	ISCO major group	Density (%)
Technical and associated professionals	29.4	Managers	47.6
Clerical support workers	19.2	Professionals	21.5
Service and sales workers	17.6	Clerical support workers	20.4
Professionals	16.8	Technical and associated professionals	18.5
Plant and machine operators, and assemblers	8.3	Service and sales workers	12.5
Elementary occupations	4.0	Craft and related trades workers	11.1
Craft and related trades workers	3.0	Elementary occupations	7.8
Managers	1.3	Plant and machine operators, and assembler	3.0
Total	100.0	Total	11.6

The survey also tries to identify which skills are lacking among jobseekers. As shown in the figure below, foreign language skills, which was the top skills lacking in previous survey in 2015, remained on the top spot of skills that are lacking among jobseekers. The second rank was technical or practical skills, followed by customer handing, oral communication, team work, and problem-solving skills.

Figure 5.6: Type of skills shortage (% of establishments reported skills shortage)



n (unweighted establishments with skills shortages) = 158

A detailed analysis at the major-occupation type level and sectors are in the following tables.

Table 5.7: Top 5 of skills shortages by occupation in 2017

Managers	Professionals	Technical and associated professionals
Technical or practical skills	Technical or practical skills	Foreign language skills
Foreign language skills	Foreign language skills	Basic computer literacy/using IT
Planning and organization skills	Problem solving skills	Technical or practical skills
Office admin skills	Advanced IT or software skills	Problem solving skills
Written communication skills	Team working skills	Customer handing skills

Clerical support workers	Service and sales workers	Craft and related trades workers
Oral communication skills	Foreign language skills	Technical or practical skills
Customer handing skills	Team work skills	Foreign language skills
Foreign language skills	Oral communication skills	Problem solving skills
Team work skills	Customer handing skills	Oral communication skills
Basic computer literacy/using IT	Problem solving skills	Team work skills

Plant and machine operators, and assemblers	Elementary occupations
Team work skills	Oral communication skills
Customer handing skills	Customer handing skills
Technical or practical skills	Team working skills
Other job specific skills	Foreign language skills
	Basic computer literacy/using IT

n (unweighted establishments with skills shortages) = 158

Table 5.8: Top 5 of skills shortages by sector in 2017

Accommodation	Construction	Education
Foreign language skills	Oral communication skills	Advanced IT or software skills
Team work skills	Team work skills	Oral communication skills
Oral communication skills	Problem solving skills	Customer handing skills
Customer handing skills	Strategic Management skills	Team work skills
Problem solving skills	Office admin skills	Foreign language skills

Finance and insurance	Food and beverage	Garment, footwear and apparel
Customer handing skills	Technical or practical skills	Foreign language skills
Basic computer literacy/using IT	Oral communication skills	Technical or practical skills
Problem solving skills	Customer handing skills	Problem solving skills
Technical or practical skills	Team work skills	Basic computer literacy/using IT
Oral communication skills	Other job specific skills	Other job specific skills

Health	ICT	Logistics, warehousing and transportation
Technical or practical skills	Foreign language skills	Technical or practical skills
Problem solving skills	Written communication skills	Oral communication skills
Planning and organization skills	Customer handing skills	Customer handing skills
Office admin skills	Advanced IT or software skills	Team work skills
Strategic Management skills	Oral communication skills	Basic computer literacy/using IT

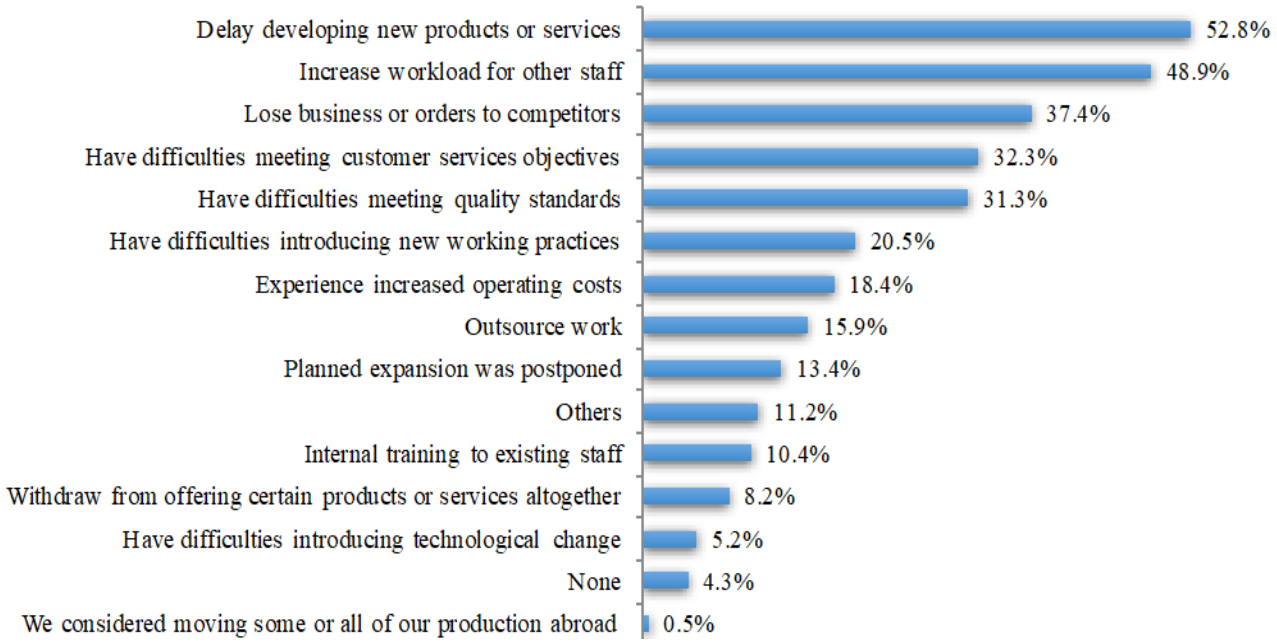
Rubber and plastics
Technical or practical skills
Basic computer literacy/using IT

n (unweighted establishments with skills shortages) = 158

5.4. Impacts of recruitment difficulties

Many establishments agreed on some main consequences of the difficulties in filling vacancies. As shown in figure below, about half of the establishments (52.8%) that encountered skills shortage indicated that this problem caused delay developing new products or services. Second to this, almost half of the establishments (48.9%) reported that it would increase workload for other staff resulting hard-to-fill vacancies. At the same time, more than one-third (37.4%) indicated that this problem caused a lose in business or orders to competitors; 32.3% reported that it caused more difficulties meeting customer services objectives; and 31.3% reported that it caused more difficulties meeting quality standards.

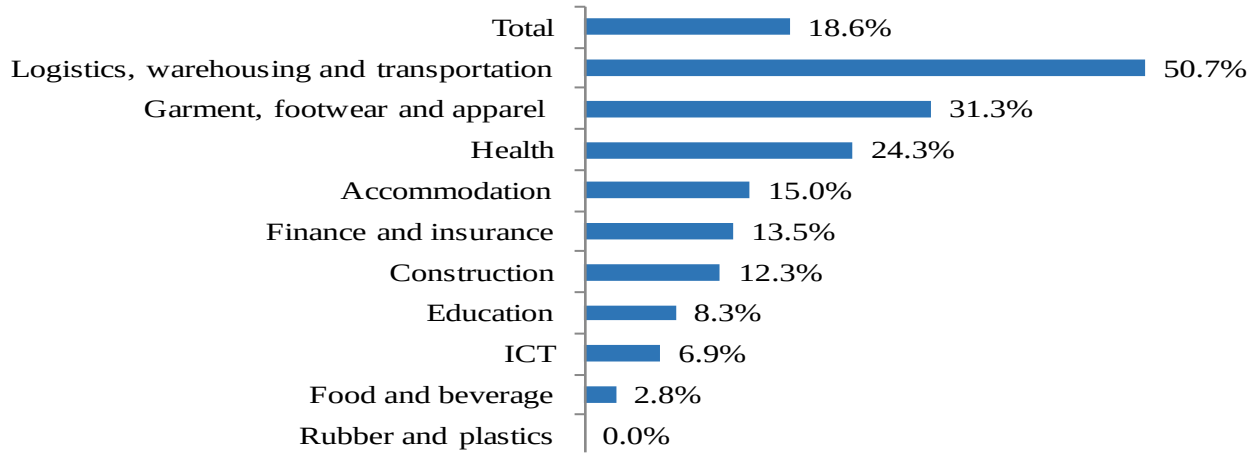
Figure 5.7: Impact of recruitment difficulties on recruitment process (% of establishments reporting recruitment difficulties)



N (weighted establishments reporting recruitment difficulties) = 805

In addition to the basis of doing the assessment on the impacts of recruitment difficulties on the business operation, we do a specific assessment of its impact on the employment generation by evaluating the number of vacancies that establishments refrained to recruit because they had difficulties to recruit people to fill these vacancies (hidden vacancies). As shown in the figure below, 18.6% of establishments facing recruitment difficulties refrained from trying to recruit. However, this proportion is particularly high in logistics, warehousing, and transportation at 50.7%, followed by 31.3% in garment, footwear, and apparel and 24.3% in health sector. For other sectors, the proportions of establishments refrained to recruit were below the average level and ranged from 15.0% in accommodation to the minimum level of 2.8% in food and beverage sector. At the same time, it is worthy to note that, in rubber and plastics sector, it did not report any hidden vacancies, since this sector consistently had the low proportions of establishments facing recruitment difficulties and skills shortages.

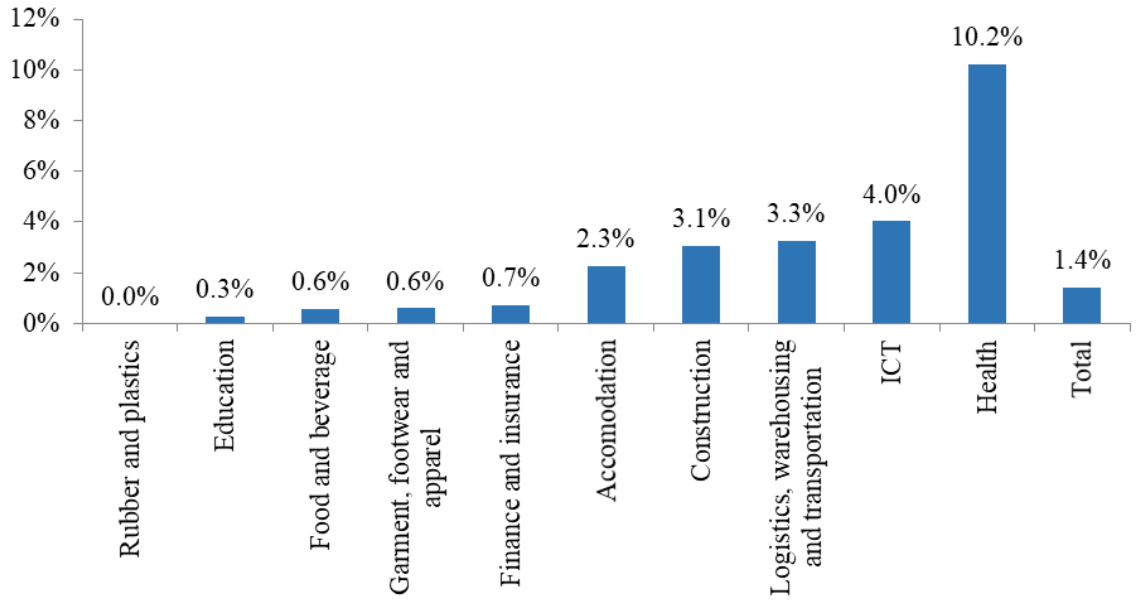
Figure 5.8: Share of establishment refraining from trying to recruit because of recruitment difficulties (% of total establishments with recruitment difficulties)



N (weighted establishments reporting recruitment difficulties) = 805

However, in terms of number of hidden vacancies, it is quite modest but varied across sectors, as indicated in the figure below. Health sector is reported to have the highest density of hidden vacancies at 10.2% of total vacancies within this sector, while for other sectors, this density was less than 4.0%. One of the reason of health sector having the highest density of hidden vacancies is due to its nature of high requirements for applicants and occupations concentration mostly on high skilled workers and so is their hard to fill vacancies.

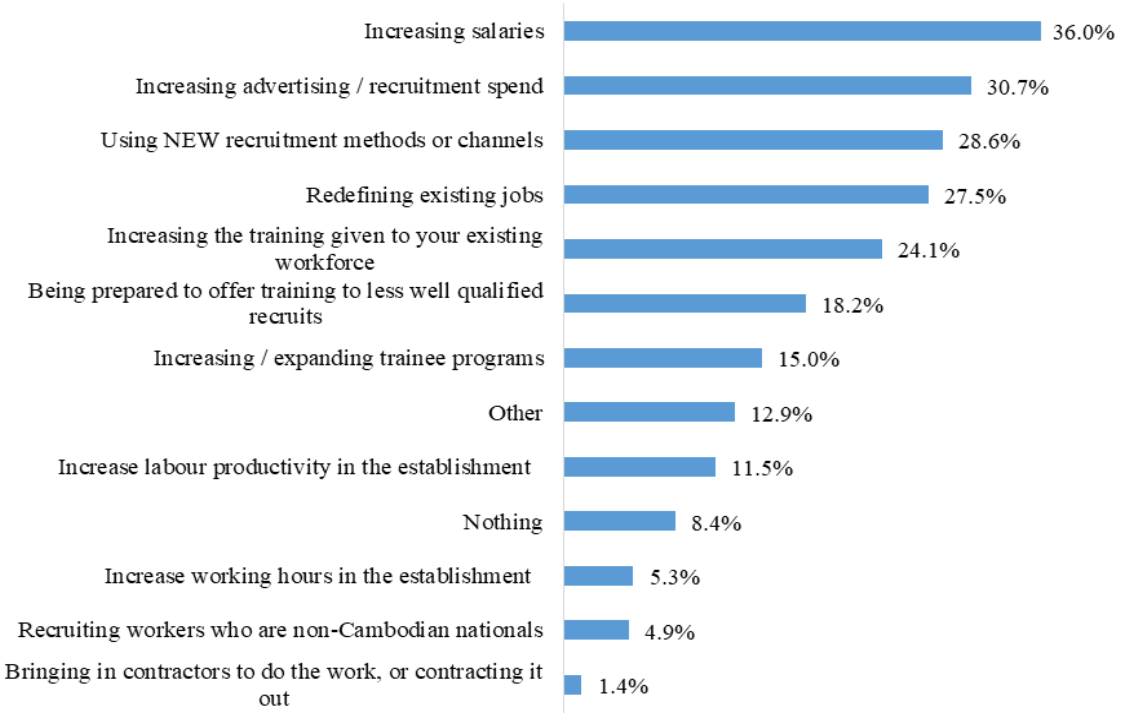
Figure 5.9: Density of hidden vacancies by sector (% of total vacancies)



n (unweighted total vacancies) = 6,421

The establishments had adopted different sets of measures to address the hard-to-fill vacancies. The most common was to raise wages, a measure taken by 36.0% of the establishments affected by the problem of hard-to-fill vacancies, as shown in figure below. This also confirmed the fact that establishments understand that wages are a critical variable in acquiring the workforce they need and to reduce staff turnover. Other measures were directed towards recruitment and to reducing the need for new employees. The former type of measures included improvements in advertisement and recruitment spending (30.7%), and recruitment methods (28.6%); the latter, increasing on-the-job training and redefining existing jobs.

Figure 5.10: Measures taken to address hard-to-fill vacancies



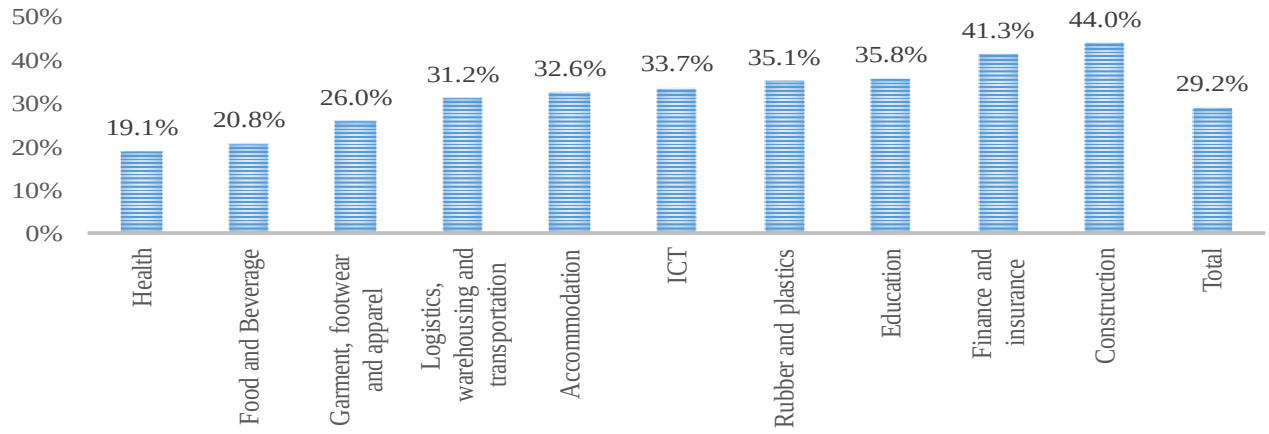
N (weighted establishments reporting recruitment difficulties) = 805

6. Skills Gaps and Workforce Development

6.1. Incidence and Density of Skills Gaps by Sector

A skill gap is defined when the existing staff cannot perform up to the level required by employers. The survey indicates that about one-third (29.2%) of the establishments interviewed declared to have encountered the issue of skills gaps (fairly decreased if compared to previous 2015 survey which was 39.4%). Notably, the survey shows that there were high skills gaps among "construction" and "finance and insurance" sector (44.0% and 41.3%, respectively). As shown in figure below, the share did vary, but not hugely between sectors, and lowest percentage was found in health sector at about 19.1%.

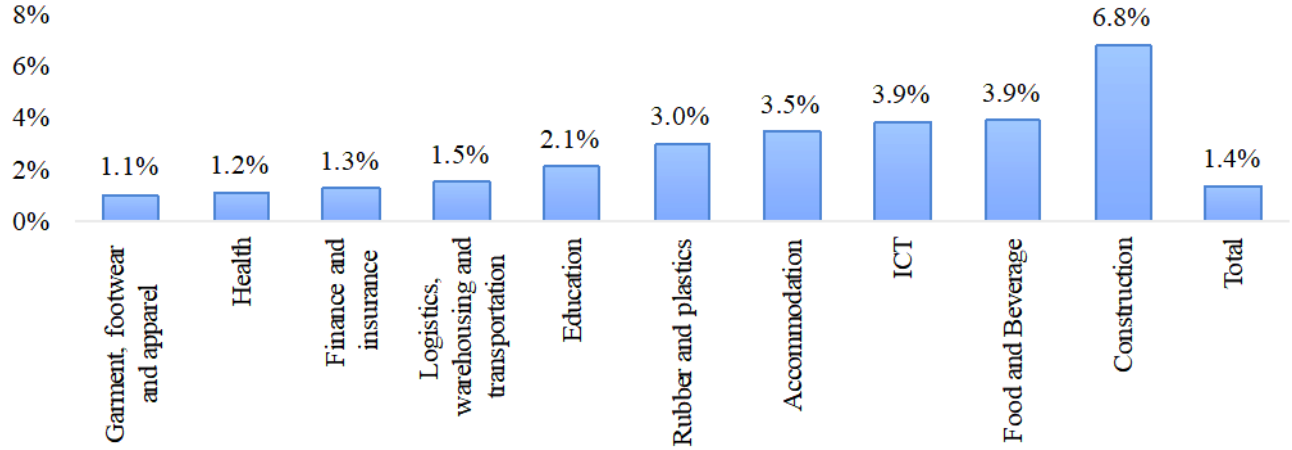
Figure 6.1: Share of establishments affected by skills gaps by sector



N (total weighted establishments) = 4,571

Despite the high share of establishments (29.2%) experiencing skills gaps, about 13,482 of total 962,972 workers (1.4%) were considered to have skills gaps. This percentage varied between sectors as shown in figure below. Remarkably, "construction" was the highest density of skills gaps sector. On an important note, "garment, footwear and apparel" sector given the lowest density of skills gaps in terms of percentage share within its sector total employment (1.1%) had the highest distribution of 60.0%; second to this, "accommodation" represents 9.2%.

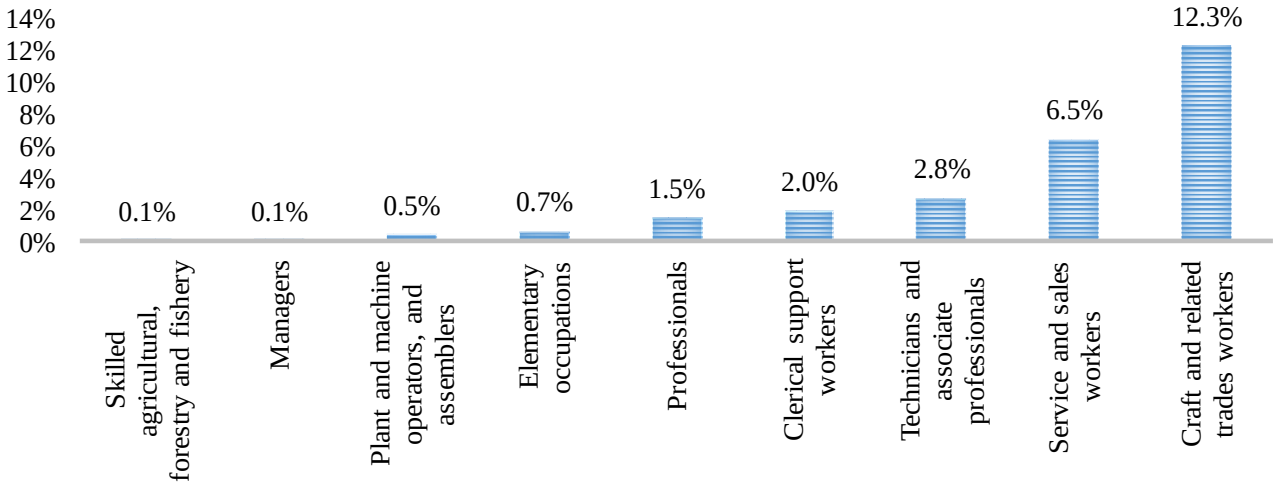
Figure 6.2: Density of skills gaps by sector



N (total weighted employment) = 962,972

By ISCO major group, craft and related trades workers were the highest density of skills gaps at 12.3%, followed by services and sales workers at 6.5%. At the same time, other occupational groups had the density of skills gaps less than 3.0%, as indicated in the figure below.

Figure 6.3: Density of skills gaps by ISCO major group

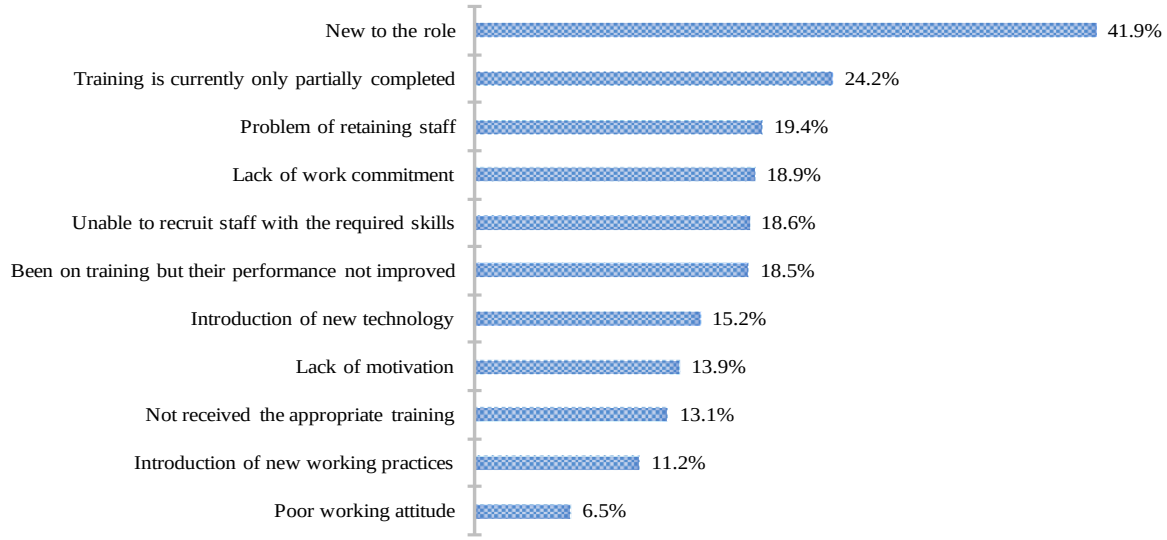


N (total weighted employment) = 962,972

6.2. Causes of Skills Gaps

The main causes of employees not performing up to the required level are presented in figure below as the percentage of all occupations with skills gaps rather than the percentage of establishments with skills gaps. The establishments could give more than one factor that caused skills gaps for their establishment.

Figure 6.4: Factors associated with employees not performing to the required level



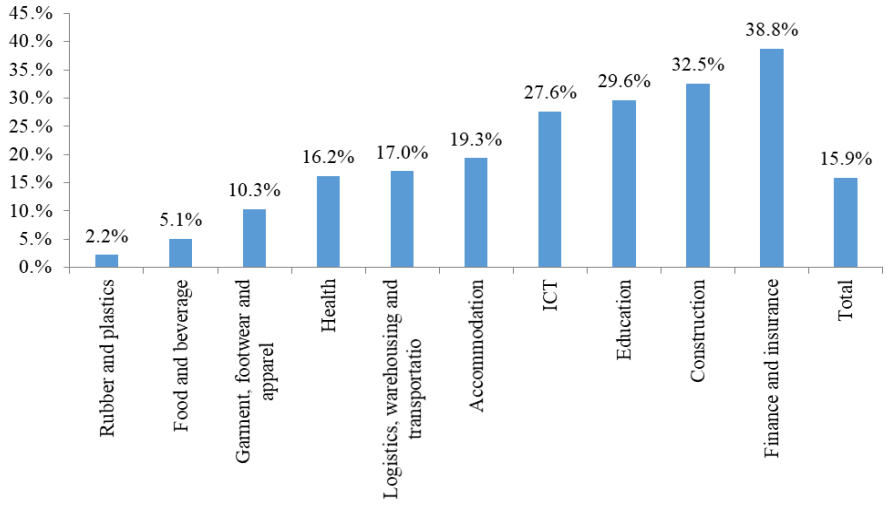
N (weighted establishments with skills gaps) = 1,337

"New to the role" is the main cause of skills gaps reported by 41.9% of the establishments with skills gaps, a reason that could be connected to the high turnover that characterizes the Cambodian labour market. The second reason, cited by 24.2% of the establishments, was the fact that training is currently only partially completed. Problem of retaining staff ranked only third in most cases at 19.4%. Last but not least, it is worth highlight that 18.9% of establishments with skills gaps are faced with "lack of work commitment", 18.6% with "unable to recruit staff with the required skills", 18.5% with "the staff being on training but their performance not improved", and 15.2% "due to introduction of new technology". For other reasons, they are cited less than 15% as shown in figure above.

6.3. Workforce Development

Overall, during the 12 months preceding the survey, around one fifths of establishments (15.9%) had funds or arranged some form of training for their employees, but this proportion is varied roughly across different sectors: the highest percentage was found in finance and insurance sector (38.8%) and the lowest one was in rubber and plastics sector (2.2%). In addition to finance and insurance sector, it can be explained by a high share of establishments reporting hard to fill vacancies and high skills shortage within this sector; therefore, they are eager to provide training.

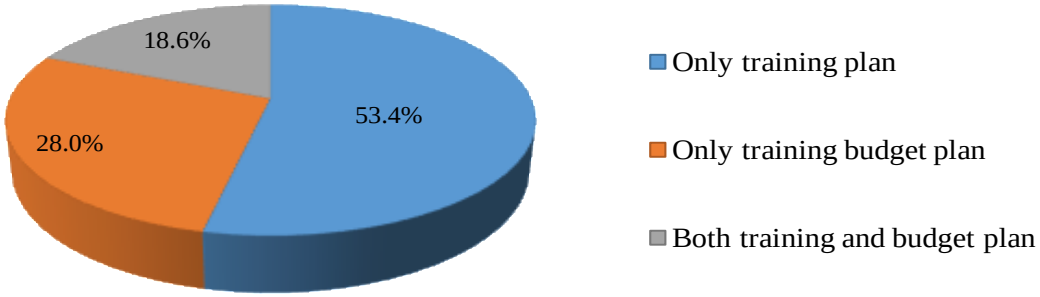
Figure 6.5: Share of establishment providing training in 2017



N (total weighted establishments) = 4,571

However, there is only 18.6% of all establishments providing training that had both training plans and budget that specified in advance the level and type of training that would be needed in the coming year. Some of establishments (28.0%) stated that, while having training budget, they had no training plan, the highest share of 53.4% of establishment stated that they had only training plan but they didn't have training budget. It was harmonized if the establishments have at the same time training plan and training budget available.

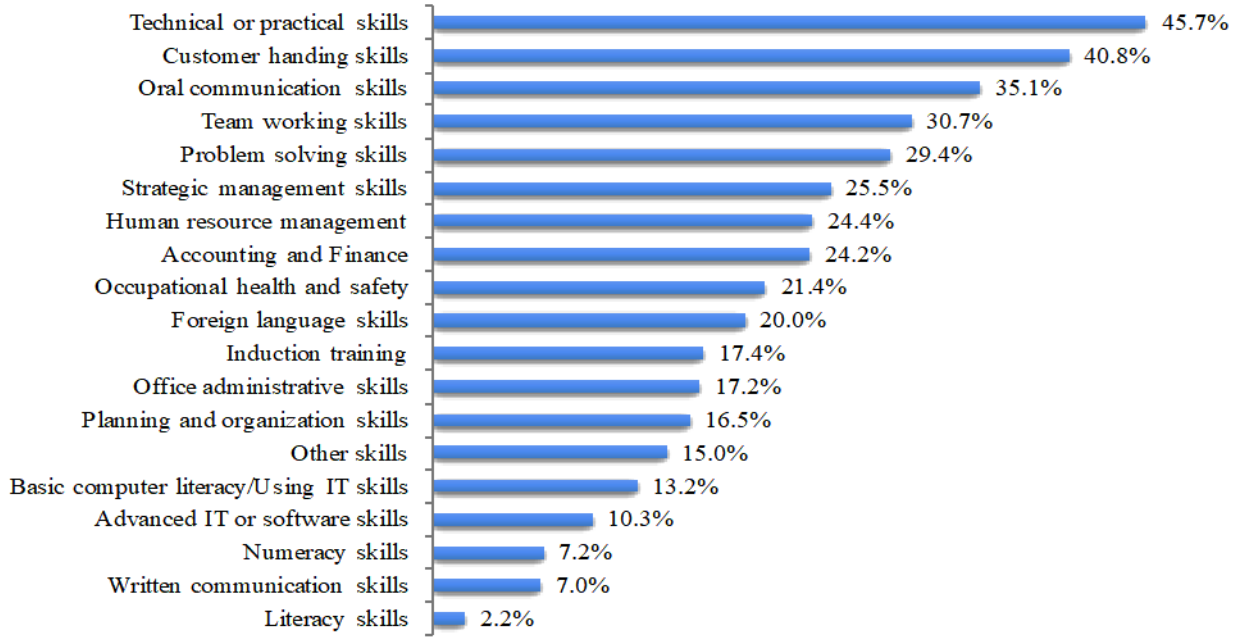
Figure 6.6: Share of establishment having training plan and budget



N (weighted establishments providing training) = 745

As shown in figure below, among the establishments that stated to have training in the last 12 months, 45.7% of them provided training in technical or practical skills. Other trainings such as customer handling skills (40.8%) and oral communication skills (35.1%) came second and third rank, respectively; consistent with the nature of finance and insurance sector that have the highest rate of providing trainings. At the same time, team work skill (30.7%) and problem-solving skills (29.4%) were also among a top 5 skills that establishment offers in the last 12 months. Thus, four among top five skills that establishment offered were related to the soft skills. For the other skills, it is ranged between 25.5% for strategic management skills and the minimum one of 2.2% for literacy, as shown in the figure below.

Figure 6.7: Training courses offered in 2017 (% of establishments providing training)



N (weighted establishments providing training) = 745

However, the top five of area of skills that establishments provided to their workforce in the last 12 months varied across sectors, as summarized in the table below.

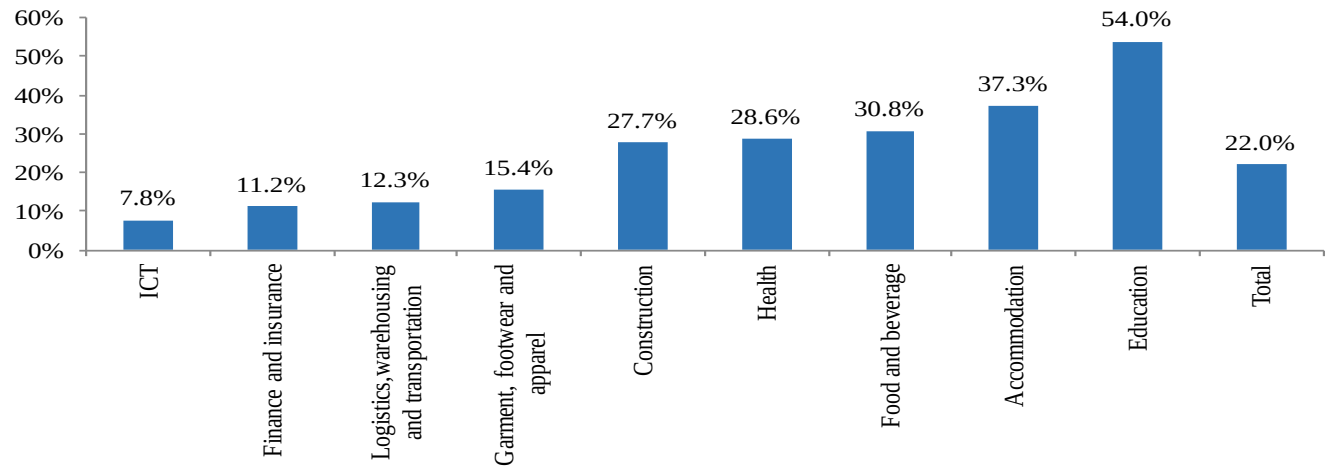
Table 6.1: Top 5 training courses offered in 2017 by sector

Accommodation	**Construction**	**Education**
Oral communication skills	Technical or practical skills	Technical or practical skills
Customer handing skills	Accounting and Finance	Foreign language skills
Technical or practical skills	Occupational health and safety	Strategic Management skills
Foreign language skills	Foreign language skills	Oral communication skills
Team working skills	Induction training	Team working skills
Finance and insurance	**Food and beverage**	**Garment, footwear and apparel**
Customer handing skills	Occupational health and safety	Technical or practical skills
Oral communication skills	Customer handing skills	Occupational health and safety
Problem solving skills	Team working skills	Team working skills
Accounting and Finance	Technical or practical skills	Strategic Management skills
Team working skills	Accounting and Finance	Problem solving skills
Health	**ICT**	**Logistics, warehousing and transportation**
Technical or practical skills	Customer handing skills	Human Resource Management
Occupational health and safety	Oral communication skills	Technical or practical skills
Team working skills	Technical or practical skills	Advanced IT or software skills
Oral communication skills	Advanced IT or software skills	Team working skills
Customer handing skills	Basic computer literacy/using IT skills	Problem solving skills
Rubber and plastics		
Technical or practical skills		

N (weighted establishments providing training) = 745

Among the establishments that provide training to their staff in the last 12 months, 22.0% of them experienced difficulties in organizing training courses and/or finding trainers. This proportion is particularly high in education section, where 54.0% of establishments within this sector encountered this issue. The second one was in accommodation with 37.3%, followed by food and beverage (30.8%), health (28.6%), and construction (27.7%). For other sectors, where their proportions were less than the average of all selected sectors, was in garment, footwear and apparel; logistics, warehousing and transportation; finance and insurance; and ICT.

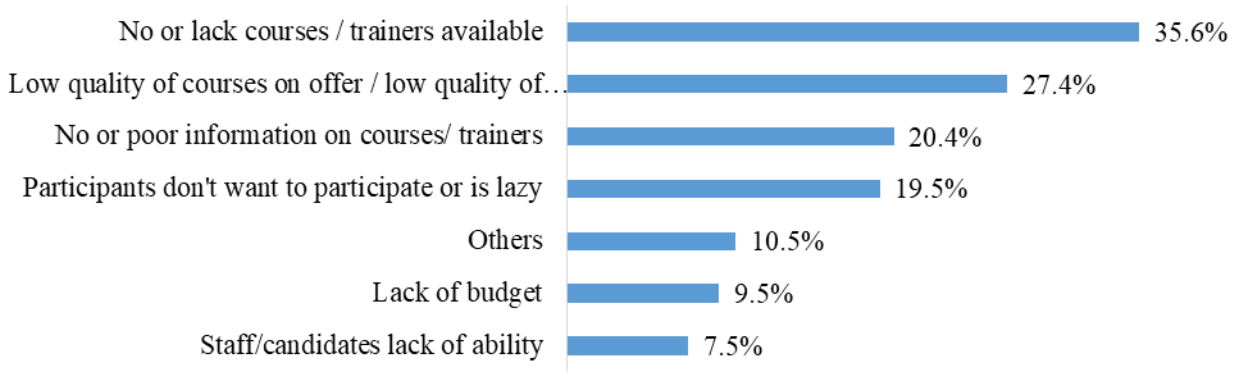
Figure 6.8: Difficulty in organizing training courses in 2017 (% of establishments providing training)



N (weighted establishments providing training) = 745

Regarding the causes of difficulty in organizing training courses, the first reason is no available or lack of courses or trainers, which was reported by 35.6% of all establishment encountering this issue; as a result of the natural requirement for trainer in education sector (a sector that require and consist of high skill workers). The second one was low quality of courses offered (or the trainer), followed by no or poor information on courses or trainers (27.4% & 20.4%, respectively). The staff lacking of motivation to join the training is also one of issues reported by 19.5% of establishment facing difficulties. Lack of training budget and the issue of staff capacity to join the training course are raised by 9.5% and 7.5% of establishments, respectively as the reasons for difficulty in organising training course.

Figure 6.9: Reasons for difficulty in organising training course (% of establishment having difficulty in organizing training courses)

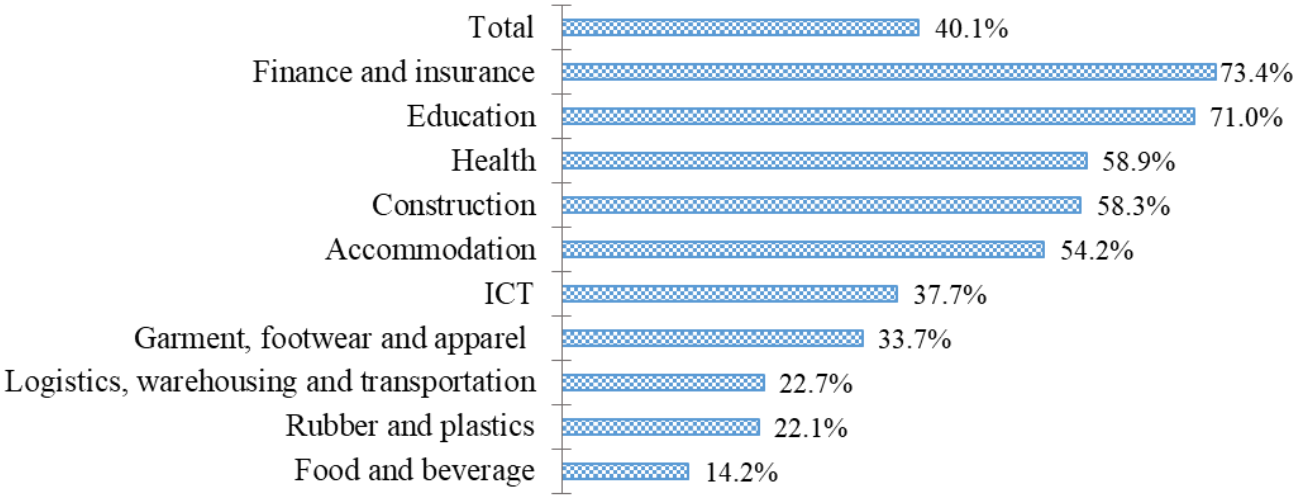


N (weighted establishments having difficulty in organizing training course) = 164

6.4. Work's Preparedness of First Time Jobseekers

This section examines the incidence of recruitment, work-preparedness, and skills endowment of first time jobseekers coming directly from either upper secondary school, pre- and post-secondary technical and vocational training school (TVET), or university. More specifically, we look at the proportion of employers that recruited first time jobseekers over the last 12 months prior to the survey, and identify their perception on the preparedness for work, and lack of skills of new recruits.

Figure 6.10: Share of establishment hiring first time jobseeker in 2017 (% of total establishments)



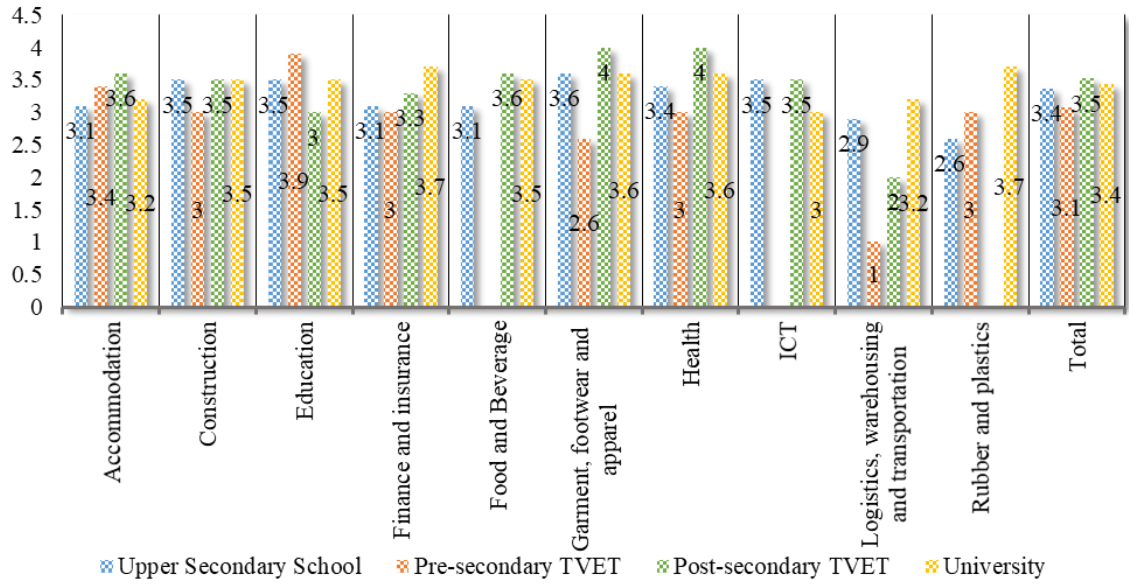
N (total weighted establishments) = 4,571

Overall, 40.1% of all establishments hired first time jobseekers (FTJS) over the last 12 months. The rates were found to be very high for some sectors such as finance and insurance (73.4%), education (71%), health (58.9%), and construction (58.3%), as pointed in the figure above.

The survey also tried to valuate work preparedness of FTJS from the perspectives of employers. The figure below shows that index (a scale of from 1 to 5, 1-very poorly prepared & 5-very well prepared, with the average of 3) of FTJS as preparedness perceived by employers in different sectors: the higher index means the higher level of preparedness, and vice versa.

Overall, post-secondary TVET level of work preparedness rating was the highest of all other education level, followed by university and upper secondary school graduates, and the lowest rating was found in pre-secondary TVET. By sectors, employers reported good level of work preparedness of university graduates, which is better than any other graduates, particularly for "finance and insurance", "rubber and plastics", and "health" sector. TVET graduates, on the other hand, employers rated post-secondary TVET better than pre-secondary TVET. For instance, in garment footwear and apparel, construction, and health sector, employers rated post-secondary TVET better than pre-secondary TVET with overall average rate of 3.4 and 2.9, respectively.

Figure 6.11: Index of employers' perception on first time jobseekers



N (total weighted establishments) = 4,571

The poor work preparedness of FTJS were concentrated on four main areas: English language skills, poor attitude/personality, lack of working world/life experience, and lack of basic IT skills. However, as shown in table below, the degree and types of complaint depended on their education levels. Notably, among several skills, English language skills is reported by all level of education. For pre-secondary TVET, it is particularly important to improve attitude/personality, technical and practical skills, while lack of experiences is needed to reinforce for post-secondary TVET schools. For university student, the knowledge of Basic IT and experiences has become very important to find the first job.

Table 6.2: Skills and competence that need to improve by educational level

Upper Secondary School
English language skills
Lack of working world/life experience
Team work skills
Communication skills
Practical skills

Post-Secondary TVET
Lack of working world/life experience
English language skills
Basic IT skills
Chinese language skills
Other langugae skills

University
Basic IT skills
Lack of working world/life experience
Communication skills
Technical skills
English language skills

Pre-secondary TVET
Poor attitude/personality
Technical skills
Practical skills
English language skills
Poor education/training
Basic IT skills

N (total weighted establishments) = 4,571

7. Conclusion

The last part of this report will provide a short conclusion for each of the ten sectors in our study. It would provide a short highlight and recapitulation of the characteristics and the interesting findings for each sector.

Accommodation

Despite being a young industry (53.6% started after 2008), accommodation sector shares about 15% of total establishments and covers 3.7% of employment and also is one of the fastest employment annual growth rate (4%) doubling the average growth rate. Moreover, the majority of occupations in this sector concentrated on services and sales workers and elementary occupations (16.3% and 23.3%, respectively). However, accommodation sector, which has the highest turnover rate (22.5%) and also is one of the sector that have the most available vacancies (21.2% of 6421 available vacancies), is experiencing recruitment difficulties the most. In addition to available vacancies, distribution of vacancies concentrated on clerical support workers (37.6%) and service and sales workers (42.8%). This sector also associated with highest density of hard-to-fill vacancies of 31.5%. The main causes of hard-to-fill vacancies were mainly too much competition from other employers and low number of applicants with the required skills. Furthermore, this sector also experienced skills gaps issue accounting for 3.5% of 35,839 workers, the second highest as per head count. As for the top five skills that needed to improve were oral communication skills, customer handiing skills, technical or practical skills, foreign language skills, and team working skills. It is worth highlighting that more than half of establishments in accommodation sector hired first time jobseekers and surprisingly the level of preparedness rating by employers are fairly good.

Construction

Construction sector comprises of only a small amount of percentage shared of both establishments (2.5%) and employment (0.8%) in the sampling frame. This is due to the short-term contracts basis type of employment. Despite the small share in terms of establishments and employments distribution, construction sector is currently one of the highly demanded sector in terms of goods and services and is expected to continue its increase in the upcoming year; however, on the prospect of employment growth, construction sector is the slowest growth rate (1.3%). Moreover, occupations' concentration in this sector are technicians and associate professionals; craft and related trades workers; plant and machine operators, and assemblers; and elementary occupations covering about 15.4%, 18.6%, 19.8%, and 18.8%, respectively. Despite having low turnover rate, half of the establishments in this sector declared to have available vacancies and the top two vacancies were professional and elementary occupations. Regarding skills gaps issue, this sector ranked first in both percentage share of establishments (44%) and density (6.8%). As for the top five skills that needed to improve were technical or practical skills, accounting and finance, occupational health and safety, foreign language skills, and induction training. Similarly to accommodation, more than half of establishments in construction sector hired first time jobseekers and surprisingly the level of preparedness rating by employers are decently good.

Education

Education sector is on the right track with the increasing number of private and public school since ownership of establishments in education sector comprises of individual proprietor and state owned. In addition, education sector represents 2.9% of total establishments and 1.5% of total employment. More than 70% of occupation in education sector are high skilled workers ranging from technicians and associate professionals up to managerial levels. Given low turnover rate, 55.3% of establishments in this sector declared to have available vacancies accounting for 5.4% of total sectoral employment; however, the difficulties in recruitment in this sector is considerably hard due to high skilled requirement. Notably, this sector is one of the top three shares of establishment facing skills shortages

(33%). Furthermore, 35.8% of establishments experience skills gaps equivalent to 2.1% of total sectoral employment. Surprisingly, among the top five skills that needed to improve, foreign language skills is still an issue and interestingly, technical or practical skills is the top skills needed to improve in a sector consisting of mostly high skilled workers.

Finance and Insurance

Finance and insurance, which shares 9.8% of total establishments and 8% of total employment, is the most phenomenal demanded sector and surprisingly are evenly owned by Cambodians and a joint ownership with foreigners (43.3% & 32.9%, respectively). Without a doubt, the main occupations in this sector are from services and sales workers up to managers' level; naturally, clerical supports workers and technicians and associate professionals share the most of employment by 32% and 28.3%, respectively. Also, it is the sector that has reported the highest percentage in term of employment growth rate in 2016 (5.7%). Given high proportion of available vacancies (19% distribution), this sector was experiencing recruitment difficulty and half of the establishments reported hard-to-fill vacancies due to lack of applicants with require skills especially technicians and associated professionals and service and sales workers. On the other hand, this sector also faced a serious issue with skills gaps, about 40% of establishments. Being the sector having the most establishments (73.4%) hiring first time jobseekers, about 40% of total establishments in this sector in particular offered training courses such as customer handling skills, oral communication skills, problem solving skills, accounting and finance, and team working skills.

Food and Beverage

Establishments in food and beverage sector are mostly owned by Cambodian and are individual proprietors representing 12% of overall establishments and 1.7% of total employment. It is expected to have a very high employment growth rate of 7.5% in the upcoming years 2018 and 2019. In addition, this sector seemed to be labour intensive and less advanced in technology: occupations concentrate on service and sales workers and elementary occupations covering about 55% of total employment in this sector. Moreover, this sector's available vacancies mostly concentrated on service and sales workers given the least share of establishments with at least one vacancies. Even though this sector demand for labour concentrated only on one occupation, it still had an issue with hard-to-fill vacancies (51.7% of establishments with at least one vacancies) and 71% of service and sales workers occupation was considered hard-to-fill vacancies in food and beverage sector. Above all else, this sector had the second least share of establishments affected by skills gaps after health sector and also, the lowest share of establishments that provided training.

Garment, Footwear and Apparel

Garment, footwear and apparel is one of the most in shares of establishments and employment, covering up to 43.6% and 77.4%, respectively; however, the demand for goods and service for this sector increases at a slower rate comparing to other nine sectors and also the employment growth rate is below average (1.5%). Moreover, this sector employment concentrates on skilled manual workers specifically 74.9% are plant and machine operators and assemblers. Given the small share of establishments reported to have vacancies, the distribution of vacancies to total vacancies in this sector is the largest accounting for 31.4%. The recruitment situation in this sector was in moderate zone of recruitment difficulties and only one-third of establishments reported having hard-to-fill vacancies (the second lowest after rubber and plastics). Furthermore, about one-third of establishments were affected by skills gaps and given the lowest density of skills gaps in terms of percentage share within its total sectoral employment (1.1%) had the highest distribution of total skill gaps (60%). In addition, more than half of establishments in garment, footwear and apparel sector orient to export market either directly or through an intermediary; therefore, this sector is exposed to more external risk than the other sectors.

Health

Health sector which is mostly owned by government (66%) is consistently 100% registered in Ministry of Commerce, and established before 2002 (78.3%). Notably, health sector is the most demanded sector for both goods and services (see figure 2.2.1) given a small share of establishments (2.8%) and employment (0.9%). In addition, health sector employs only high skill workers (70%) including managers (6.7%), professionals (23.7%), and technicians and associate professionals (39.7%). Surprisingly, the proportion of establishments planning to introduce new products, services or technologies, and to acquire new markets in the next year in health sector was very high (57%). Due to its nature and as a public sector, employment growth rate is rather slow while also a small share of the establishments has at least one vacancies. Moreover, since this sector comprised of high skill workers, index of recruitment difficulties in this sector was very high and a huge shared of establishments reported hard to fill vacancies (58.3%). In health sector, professionals (44.4%), technicians and associated professionals (22.2%), and service and sales workers (11.1%) were the main skills shortage vacancies; as a result, health sector have the most hidden vacancies that the sector is refraining from recruit due to its difficulties. Remarkably, health sector had the least shared of establishments affected by skills gaps.

Information and Communication Technology

ICT is one sector known for high demand of goods and services, newly established (about 70% of establishments in ICT sector were established after 2008), and the top dominant owned by foreigners. Given high demand of goods and services, more than half of total establishments in ICT sector are relatively small size; still this sector employs 1.4% of total employment and represents 4.1% of total establishments. In addition, employment in ICT sector mostly concentrates on technicians and associate professionals and service and sales worker (22.5% & 23.2%, respectively), while the rest evenly distributed to managers, professionals and clerical support workers at about 13%. In addition, ICT employments growth rate is considerably as fast as finance and insurance (5.7%); complement to their above average density of vacancies. Differing from previous survey result, ICT had improved their recruitment difficulty to moderate difficulty; in other words, only one-third of establishments in ICT sector reported hard-to-fill vacancies. Worth noting is that even with a small share of establishments reporting hard-to-fill vacancies, occupations that were likely hard-to-fill were of those in ICT employments' concentration such as technician and associate professionals, and service and sales workers. Furthermore, worth highlighting is that skills shortages in ICT, one among the top five was advanced IT or software skills as a result of the second highest foreigner employed sector after education sector. However, the top five training course offered in ICT sector consisted three training that counter the effect of skills shortages namely technical or practical skills, advanced IT or software skills, and basic computer literacy/using IT skills.

Logistic, Warehousing and Transportation

Logistic, warehousing and transportation sector shared 4.3% of total establishments and employed 1% of total. Moreover, the most occupation concentration in this sector are technicians and associated professionals (16.8%), plant and machine operators, and assemblers (19.5%), and elementary occupations (25.2%), and as for sizes in this sector it is shared evenly. In addition, the employment growth rate is slightly above average (3.3%) and only one-third of establishments declared to have available vacancies and 64% of them were hard to fill vacancies. In logistic, warehousing and transportation sector, managers (20%), professionals (20%) and plant and machines operators (46.7%), are the main skills shortage vacancies. About one-third of establishments were affected by skills gap and the top five training offered by this sector are human resource management, technical or practical skills, advanced IT or software skills, team working skills, and problem solving skills.

Rubber and Plastics

Rubber and plastics sector is a sector is mostly owned by foreigners and shares 3.1% of total establishments and employs 3.4% of total employment.Ait is one of the sectors that mostly emplo skilled agricultural, forestry and fishery profession (73.1% of total skilled agriculture, forestry, and fishery workers). In addition, this sector employment growth rate is slightly above average (3.1%) and occupation is mainly concentrated on skilled manual workers such as skilled agricultural, forestry and fishery (46.6%) and craft and related trades workers (28.6%). Furthermore, in term of demand for goods and services, this sector is not doing well, the second worse after food and beverage, given that about half of the establishments are large in size. One-third of establishments reported having available vacancies, the recruitment difficulties was moderate, and among them only 7.3% were hard-to-fill vacancies. Only a small percentage of establishments are affected by skills shortages (7.3%); however, one-third of establishments are affected by skills gaps. Unfortunately, this sector did not provide any training only a plan to provide training.

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Appendix

A- Research Methodology

Operational Terminologies and Concepts

Although skills gaps and skills shortages have been studied all over the world, such studies are new in developing countries. In addition, the lack of uniformity of definition has been a major problem in the study. In this report, the following terms will be defined: skills, skills shortages, recruitment difficulties, and skills gaps in order to provide conformity to the international study, particularly to the user guide to develop an employer survey on the skills needs of CEDEFOP.

The term "skills" is defined as "the ability to perform specified tasks" (Holt, Sawicki, & Sloan, 2010), or to perform "a productive task at a certain level of competence" (Shah & Burke, 2003; Trendle, 2008). In practice, skills are classified into two dimensions, according to: (1) what the particular tasks are, and (2) the level of ability that is needed. This implies that jobs are classified into occupation on that basis *(see Appendix B – International Standard Classification of Occupation)*. Skills can be acquired through either practical experience or study undertaken by the students. Skills needs are defined in terms of the jobs that employers require to be done (Holt, Sawicki, & Sloan, 2010).

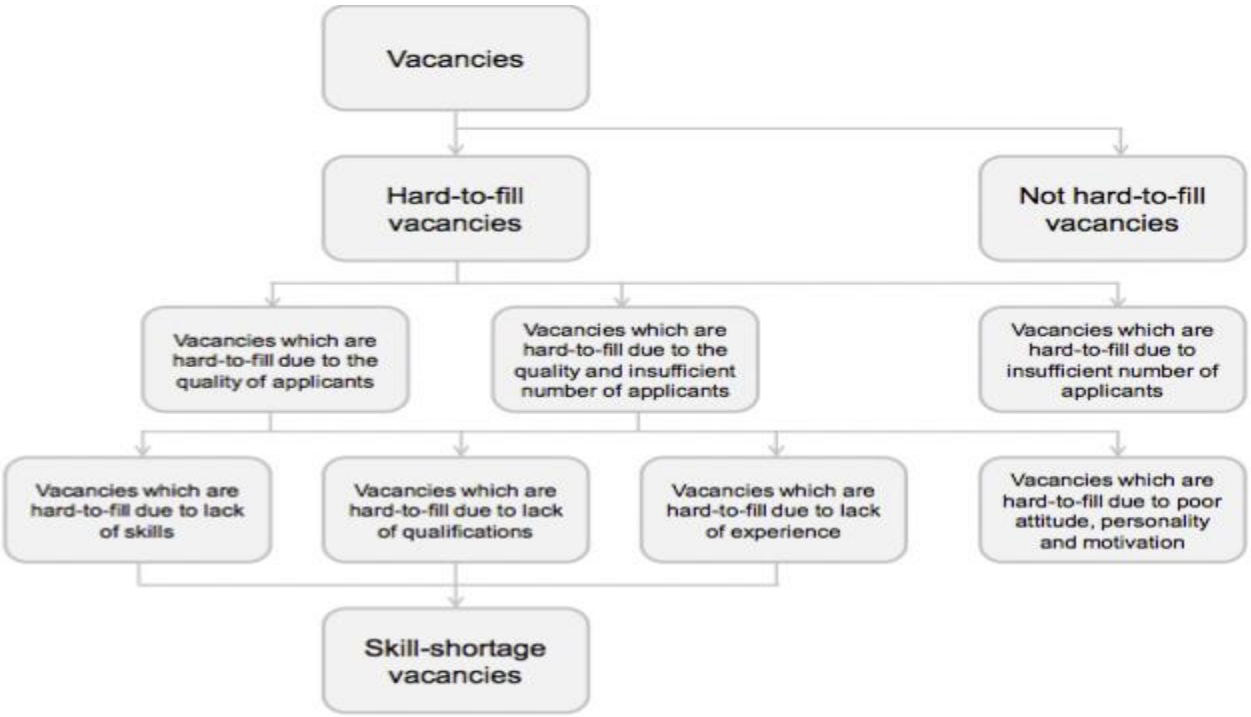
From a microeconomic perspective, skills shortages are generated from "excess demand" and the inability of employers to switch their demand composition or to substitute production factors (e.g. sourcing labour from different locations or sectors) in the short term due to asymmetric information on applicants' ability, or due to vested interests in hiring decisions that could lead to risk aversion and hence skills shortages (Shah & Burke, 2003). Skills shortages also refer to a lack of available skilled people, which results in recruitment difficulties (Strietska-Ilina, 2008). Skills shortages arise in a situation in which employers face difficulties in recruiting staff that have the skills needed. This can be due to a significant geographical imbalance and shortfall in the number of skilled people (Strietska-Ilina, 2008). More practically, "skills shortage vacancies" are hard-to-fill vacancies due to a lack of skills, lack of qualifications, and lack of experience, as shown in figure 0-1. On the other hand, those hard-to-fill vacancies that arise due to poor attitude or personality, lack of motivation, or insufficient number of applicants, are not skills-shortage vacancies. Skills-shortage vacancies are, therefore, a subset of hard-to-fill vacancies defined by the three reasons noted above.

Recruitment difficulties cover all forms of recruitment problems faced by employers (Strietska-Ilina, 2008), including the situation in which employers are unable to hire qualified candidates to perform given tasks even though there is a sufficient supply of labour in the market (Shah & Burke, 2003).

Skills gaps refer to a situation in which employers are hiring workers whom they consider under- skilled, or their existing workforce are under-skilled relative to some desired levels (Shah & Burke, 2003). Skills gaps exist where employers feel that their existing workforce have inadequate skills types or levels to meet their business objectives, or where new entrants appear to be qualified but in fact are not (Strietska-Ilina, 2008). Practically, skills gaps are where employees are not fully proficient, that is, they are not able to perform their jobs to the required level (UKCES, 2012).[2]

[2] To identify the incidence of employees with skills gaps, the respondents were asked: Do you have any problems related to your employees who do not perform jobs at the required level? Could you please indicate, in which occupations, the number of people that do not perform jobs at the required level, and the total number of employees in that occupation? (See appendix E: Employers' Skills Needs Survey Questionnaires 2017).

Figure A-1: Skills-shortage vacancies "route map"



Source: (UKCES, 2012, p. 48)

Sampling

The study covers ten sectors which have high growth potential and are major drivers of employment generation, and whose shares are important in Cambodian GDP in order to be able to explain the dynamics of the Cambodian labour market from the demand side. The sectors investigated include food and beverage; garments; apparel and footwear; rubber and plastics; construction; finance and insurance; accommodation; transportation, warehouse and logistics; human health; education; and ICT (see appendix C: International Standard of Industrial Classification).

Regarding the sampling process, the most challenging work is to build a sound and complete sampling frame due to the fact that there is no updated list of total establishments running their occupation in Cambodia. Therefore, in order to get the best list of sampling frame, all sources of information were used and utilized. For instance, the sampling frame of survey in 2017 was built from the sampling frame of the previous survey, and updated with other ad-hoc sources in order to build a representative sampling frame. The process of updating sampling frame in 2017 is the following:

- Sampling frame in 2012: It was based mainly on Establishment Census 2011 conducted by the National Institute of Statistics (NIS), with some additional establishments updated from the Yellow Pages 2011 and administrative records of the Ministry of Labour and Vocational Training (MoLVT).
- Sampling frame in 2013: It was built on the sampling frame in 2012, with some additional establishments updated from the Yellow Pages 2013 and administrative records of the MoLVT.
- Sampling frame in 2015: It was built on the sampling frame in 2013, updating with list of establishments from Cambodia Inter-Censal Economic Survey 2014 and with some additional establishments from the Yellow Pages 2014 and administrative records of the MoLVT.
- Sampling frame in 2017: It was built from sampling frame in 2015, with some additional establishments updated from the Yellow Pages 2017 and administrative records of the MoLVT and NEA.

However, it transpired that some enterprises were no longer in existence, and some information is out of date. To deal with these potential pitfalls of sample selection and attrition, all the selected

establishments were called to check their existence, confirm the sector operating, and update the number of employees and the contact address. The table below shows the number of establishments distributed by sector and size of employment.

Table A-1: The number of sampling establishments by sector and size of employment

Sector	Size of establishment (number of employees)			Total	Response rate
	10-19	20-99	100+		
Accommodation	32	52	39	123	65.9%
Construction	14	33	13	60	61.7%
Education	4	45	37	86	62.8%
Finance and Insurance	29	57	45	131	74.8%
Food and Beverage	47	27	29	103	65.0%
Garment, Footwear and Apparel	17	22	127	166	69.9%
Health	13	22	12	47	83.0%
ICT	22	26	20	68	66.2%
Logistics, warehousing, and transportation	26	30	12	68	57.4%
Rubber and Plastics	13	27	15	55	52.7%
Total	217	341	349	907	66.7%

The main purpose of the sampling is to provide findings that are representative for the selected sectors. The survey had to be conducted in a randomly selected set of establishments within the 10 selected sectors. Hence, the sampling method ensured a sample size that was statistically large enough to represent each sector. To ensure regular replication of the survey, a stratified random sample design was used.

In the sampling design process, the sample was divided into a number of cells defined by the size of the employment and economic activities (i.e. the sector) *(see appendix B: International Standard of Industrial Classification)*. The main aims of the stratification of the workforce by size was to avoid the large majority of interviews being conducted in small establishments since the number of small establishments were considerably higher than the number of medium-sized or large establishments in most sectors. In terms of employment impact, the medium-sized and large establishments are more substantive than the small ones.

In addition to this, the medium-sized and large establishments are more likely to provide accurate data on jobs and employment turnover by occupation for the previous 24 months, and are able to provide a rough estimation of future skills demands for the next 12 months. Hence, the sample was drawn based on stratified random sampling, with probability proportionate to the number of establishments in each sector, and distribution proportional to the size of the workforce (10–19, 20–99, 100+). In each sector, the number of sample are ensured to be high enough so that the inferential statistics in sectoral level can hit the confidence level of 95% with confidence interval equal to 10%. Therefore, the number of sample selection was also taking into account the non-response rates by sector, which based on past experiences, in order to guarantee the minimum number of sample. As a result, a total of 907 establishment samples was randomly selected, as indicated in the above table.

Questionnaire Design

The core questionnaire was designed in several stages, with the co-operation of the Swedish experts. There existed several pressures on the questionnaire regarding balancing the content of the questionnaire so it covered important issues and the over burdening for employers due to a lengthy questionnaire.
The questionnaire was based on the previous ESNS in 2012 and adjusted to meet the specific features of the Cambodian economy and employment structure. In addition to this, some additional questions

were added based on the Swedish Employer Survey in order to obtain the data necessary to build the occupational barometer.

The questionnaire was translated into the Khmer language in order to assist the interviewers and the employers. Before the final questionnaire was put into use, it was tested through a pilot survey, to determine if the questions were properly worded, sequenced, and could be understood. The pilot survey revealed important issues that were not covered by the initial formulation, and tested the skip pattern for inconsistencies and errors. The questionnaire was re-examined and revised again by Swedish experts before being put in place.

As mentioned above, in order to provide a comprehensive picture of the ten sectors included in the survey, the questionnaire covered a number of issues – mainly, but not uniquely, from a labour market perspective. The first part of the questionnaire aimed to collect data that identified the persons interviewed and the background of establishment. The main body of the questionnaire was structured into seven sections, with a total of 48 questions, covering the following sections *(see Appendix D)*:

(A) *General information of the establishment (questions A1–A21).* This first section aimed at collecting information on the date on which the establishments started the business, to ascertain whether or not the establishment was legally registered, the type of business entity, the type of ownership, their main activities and products, and the extent of the market.

(B) *Market development and capacity (questions B1–B2):* This section aimed at evaluating the demand for goods or services of sampled establishments as well as identifying free capacity utilization among personnel.

(C) *Employment (questions C1–C5*). In this section, each establishment was asked to report and estimate the total number of workers, as well its employment structure classified by ISCO. In addition to this, each establishment was asked to indicate the number of people that have been or are expected to be recruited or leave in the past 12 months or in the next 12 months in order to determine the staff turnover rate.

(D) *Employers' perceptions of the first time job seekers (questions D1–D4*). In this section, the questions aimed to evaluate how many establishments have recruited first time job seekers who were coming from: 1) upper secondary schools; 2) technical and vocational schools (TVET); or 3) university or other higher education institutions. It tried, moreover, to evaluate the level of preparation of the newly hired and the weak areas in their preparation.

(E) *Skills gaps and workforce training (questions E1–E8).* After having ascertained whether the establishments were facing problems of the existing staff not performing jobs up to the requirements of employer, the following set of questions aimed to find out which proportion of staff was inadequate in the five more relevant occupations of the establishments, which factors were responsible for the situation, and which skills need to be improved. A second set of questions concerned training programs provided by the company. The first question aimed to find out if the staff of the establishments did take part in any training programs, and eventually if the establishments did finance it, completely or partially. The following questions aimed to understand if the establishments found any difficulties in organizing the courses and if so what the reasons were and in which fields of training they found shortages or low quality of courses and/or trainers.

(F) *Vacancies (questions F1–F9).* This set of questions was the heart of the survey and it was devoted to the issue of vacancies and to occupational forecasting. In particular, it focuses on:

- The number of employees that are or will be recruited by establishments in the next six months,
- The current recruitment situation as well as the number of vacancies with a lack of potential employees or recruitment difficulty,

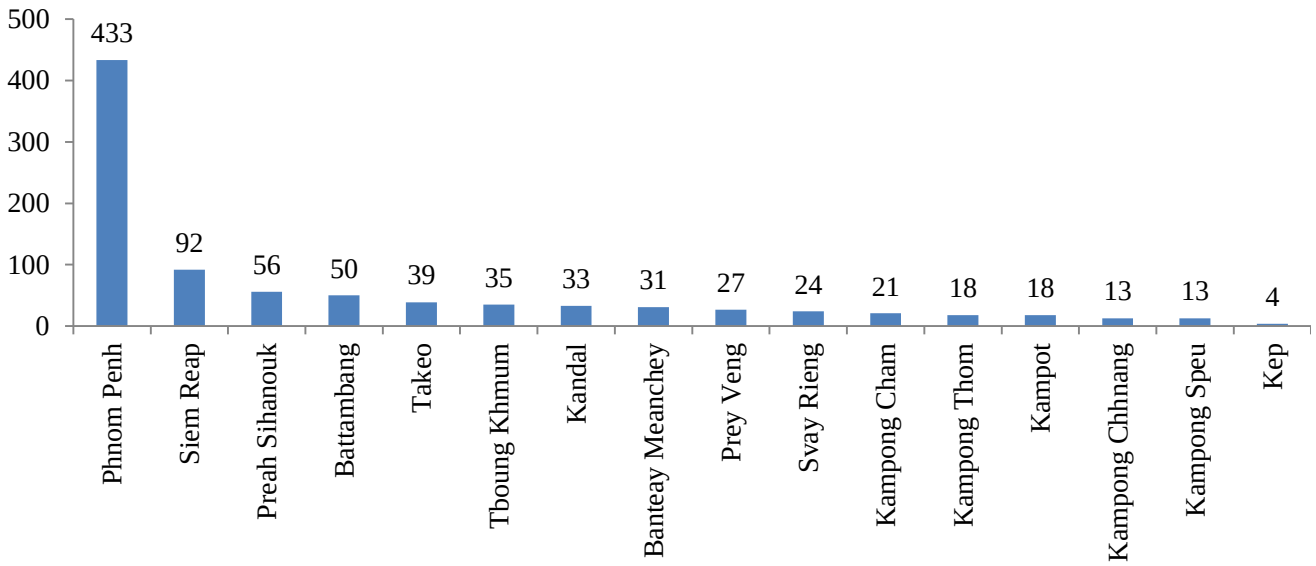
- Whether and in which occupations the vacancies are hard-to-fill, what the reasons are and which skills are presently lacking in the Cambodian labour market, and the wage offered by establishment in each occupation,
- Determining the impact of recruitment difficulties on business operations, as well as on recruitment process, which may cause employer to refrain from recruiting new staff.
- Finally, the establishment was asked whether the hard-to-fill vacancies had negative effects and, in that case, what the establishment was doing to overcome the difficulty.

(G) (G)Business strategy (questions G1–G2). This last section attempted to ascertain whether the establishments planned to introduce new products, services, or technologies, or to expand or switch to new markets. In this case, the questionnaire inquired whether the establishment would complement the innovation process with training, reorganization, and/or recruitment of new staff.

Fieldwork

The owners, human resource managers, directors, and senior managers were interviewed face-to- face using the structured questionnaire. The advantage of this approach was that it allowed the collection of both quantitative and qualitative data on skills gaps and skills shortages in occupation types. The fieldwork was carried out between the 1st and 31st of October 2017, and the total sample of 907 establishments had been collected across 15 provinces and Phnom Penh capital (figure A-2). The average length of the interview was around 60 minutes.

Figure A-2: Sample distribution by province



Prior to the fieldwork, the preparation of a fieldwork operation manual for the enumerators and survey team leaders was undertaken in order to ensure that all, both enumerators and survey team leaders thoroughly understood the survey instruments, and that they were consistent with each other.

Moreover, to properly conduct the nationwide employers' survey, intensive training programmes were arranged for the five survey team leaders and enumerators. The training covered the general instruction of interviewing techniques, fieldwork procedures, and a detailed discussion of each question in the questionnaire, particularly on frequently asked questions/situations. To ensure that the survey went smoothly, the selected establishments were called directly and also received formal letters to inform, make appointments, and seek close collaboration.

The overall response rate for the survey was 66.7%, calculated as "the number of achieved interviews" as a proportion of the "total establishments selected for interview". The response rate slightly higher compared to the previous survey in 2015 which was 66.1%. A detailed breakdown of response rates by sector is shown in Table A-1.

During the field survey, the interviews were monitored by survey team leaders who were responsible for tracking the survey and quality control. Completed questionnaires were checked and rechecked by the technical team before they were approved.

Data Entry and Data Analysis

The Epidata application was used for data entry. This allowed for the creation of a questionnaire form and to establish possible correlations and skipped codes (logical relations between answers in different questions) and to check for data error. In order to ensure the data were correct, the double entry technique was adopted. By using Epidata, the survey database could be exported into the Stata and Excel application for analysis and to make the necessary tabulation.
To ensure comparability with the previous study and other studies conducted in other countries, the International Standard Industrial Classification (see appendix C) and the International Standard Classification of Occupations (see appendix B) were used to identify the sub-sectors and occupation types relevant for the analysis.

Weighting

Data for the survey was weighted and grossed up to estimate the total number of establishments and the total number of employment. The weighting was designed on an interlocking grid of sector by group size of employment. The sampling weights, by definition, are nothing other than the inverse of sampling fractions. Separate weights have been undertaken in order to present the finding based on the *number of establishments* and the *number of employees*.

Problems Countered and Solutions Adopted

ESNS 2017 is the fourth installment of ESNS survey, a large-scale skills survey, conducted by NEA. Despite fourth installment, there was no doubt that the remaining lack of experiences and technical capacity were challenges for the team in carrying out the study, but at the same time it provided a very important opportunity to continue to learn and improve the basic techniques for labour market analysis.

The second problem was the lack of updated list of establishments for the sampling frame. In addition to this, some of the names and addresses of the establishments listed by the NIS were obsolete. It was therefore time-consuming to locate the establishments, contact them, and schedule meetings. As a result, more time and resources were spent for the fieldwork (18.6% of total samples could not be interviewed due to invalid contact numbers).

Last but not least, difficulty is regarding the questionnaire's design: the difficulty to adapt the questionnaire from developed countries to the Cambodian context because of the different structure of the economy, technology, education, policy goals/purposes, etc. These posed problems during data collection and analysis. Also, another problem is the balance between the details of information to be collected and the length of questionnaire being short and simple enough that could well respond by the interviewees.

B- International Standard Classification of Occupations (ISCO)

The ISCO is one of the main international classifications, and was developed by the ILO. ISCO is a tool for organizing jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. Its main aims are to provide: a basis for the international reporting, comparison, and exchange of statistical and administrative data about occupations; a model for the development of national and regional classifications of occupations; and a system that can be used directly in countries that have not developed their own national classifications. Definitions of each of the four ISCO skill levels are given below. These definitions do not change the boundaries between the skills levels used in ISCO_88. They serve to clarify these boundaries and to deal with cases where formal educational requirements may not be the most suitable method of measuring the skill level of a particular occupation. Each definition provides examples of the typical or characteristic tasks performed at each skill level, the types of skill required (in broad terms), and the typical occupations classified at that skill level.

Skill Level 1: Occupations at Skill Level 1 typically require the performance of simple and routine physical or manual tasks. They may require the use of hand-held tools such as shovels, or of simple electrical equipment such as vacuum cleaners. They involve tasks such as cleaning, digging, lifting and carrying materials by hand, sorting, storing or assembling goods by hand (sometimes in the context of mechanized operations), operating non-motorized vehicles, and picking fruit and vegetables. Many occupations at Skill Level 1 may require physical strength and/or endurance. For some jobs, basic skills in literacy and numeracy may be required. If required, these skills would not form a major part of the job. For competent performance in some occupations at Skill Level 1, completion of primary education or the first stage of basic education (International Standard Classification of Education Level 1 [ISCED]) may be required. A short period of on-the-job training may be required for some jobs. Occupations classified at Skill Level 1 include office cleaners, freight handlers, garden labourers, and kitchen assistants.

Skill Level 2: Occupations at Skill Level 2 typically involve the performance of tasks such as operating machinery and electronic equipment; driving vehicles; maintenance and repair of electrical and mechanical equipment; and manipulation, ordering, and storage of information. For almost all occupations at Skill Level 2, the ability to read information such as safety instructions, to make written records of work completed, and to accurately perform simple arithmetical calculations is essential. Many occupations at this skill level require relatively advanced literacy and numeracy skills, and good interpersonal communication skills. In some occupations, these skills are required for a major part of the work. Many occupations at this skill level require a high level of manual dexterity. The knowledge and skills required for competent performance in all occupations at Skill Level 2 are generally obtained through completion of the first stage of secondary education (ISCED Level 2). Some occupations require the completion of the second stage of secondary education (ISCED Level 3), which may include a significant component of specialized vocational education and on-the-job training. Some occupations require completion of vocation-specific education undertaken after completion of secondary education (ISCED Level 4). In some cases, experience and on-the-job training may substitute for the formal education. Occupations classified at Skill Level 2 include butchers, bus-drivers, secretaries, accounts clerks, sewing-machinists, dressmakers, shop sales assistants, police officers, hairdressers, building electricians, and motor vehicle mechanics.

Skill Level 3: Occupations at Skill Level 3 typically involve the performance of complex technical and practical tasks that require an extensive body of factual, technical, and procedural knowledge in a specialized field. Occupations at this skill level generally require a high level of literacy and numeracy, and well-developed interpersonal communication skills. These skills may include the ability to understand complex written material, prepare factual reports, and communicate with people who are distressed. The knowledge and skills required at Skill Level 3 are usually obtained as the result of study at a higher educational institution following completion of secondary education for a period of one to three years (ISCED Level 5b). In some cases, extensive relevant work experience and prolonged on-the-job training may substitute for the formal education. Occupations classified at Skill Level 3 include shop managers,

medical laboratory technicians, legal secretaries, commercial sales representatives, computer support technicians, and broadcasting and recording technicians.

Skill Level 4: Occupations at Skill Level 4 typically involve the performance of tasks that require complex problem solving and decision-making based on an extensive body of theoretical and factual knowledge in a specialized field. The tasks performed typically include analysis and research to extend the body of human knowledge in a particular field; diagnosis and treatment of disease; imparting knowledge to others; design of structures or machinery; and of processes for construction and production. Occupations at this skill level generally require extended levels of literacy and numeracy, sometimes at a very high level, and excellent interpersonal communication skills. These skills generally include the ability to understand complex written material and communicate complex ideas in media such as books, reports, and oral presentations. The knowledge and skills required at Skill Level 4 are usually obtained as the result of study at a higher educational institution for a period of three to six years leading to the award of a first degree or higher qualification (ISCED Level 5a or higher). In some cases, experience and on-the-job training may substitute for the formal education. In many cases, appropriate formal qualifications are an essential requirement for entry to the occupation. Occupations classified at Skill Level 4 include sales and marketing managers, civil engineers, secondary school teachers, medical practitioners, operating theatre nurses, and computer systems analysts.

The relationship between the first digit of ISCO-08 and the four ISCO-08 skill levels is summarized below:

ISCO-08 major groups	**Skill level**
1-Managers, senior officials, and legislators	3 + 4
2-Professionals	4
3-Technicians and associated professionals	3
4-Clerks 5-Service and sales workers 6-Skilled agricultural and fishery workers 7-Craft and related trades workers 8-Plant and machine operators, and assemblers	2
9-Elementary occupations	1

Note: *A significant problem regarding the application of the concept of "skill level" in ISCO_88 relates to occupations with similar tasks and duties (or content) but with a different (higher or lower) "skill level" requirement, as measured in particular countries. This is because, given realistic differences in national education systems, the same occupation (with the same set of tasks and duties) can be undertaken by individuals with different educational levels without affecting the level of skill required for competent performance of the tasks. This is the case for some elementary, craft, and technical occupations, which in many countries require higher education levels than those assigned in ISCO_88. Source: (ILO, 2012)*

Formal education and training requirement are used as part of the measurement of the skill level of an occupation and these requirements are defined in terms of ISCED-97. However, the use of ISCED categories to assist in defining the four-skill level does not imply that the skills necessary to perform the tasks and duties of a given job can be acquired only through formal education. The skills may be, and often are, acquired through informal training and experience. In addition, it should be emphasized that the focus in ISCO-08 is on the skills required to carry out the tasks and duties of an occupation and not on whether a worker employed in a particular occupation is more or less skilled than another worker in the same occupation. A mapping between ISCO skill levels and levels of education in ISCED-97 is provided in table below:

Skill levels	**ISCED-97**
4	6- Second stage of tertiary education (leading to an advanced research qualification) 5a- First stage of tertiary education, 1st degree (medium duration)
3	5b- First stage of tertiary education (short or medium duration)
2	4- Post-secondary, non-tertiary education 3- Upper secondary level of education 2- Lower secondary level of education
1	1- Primary level of education

Source: (ILO, 2012)

C- International Standard Industrial Classification (ISIC)

The table below shows the 10 sectors covered by the survey and their corresponding ISIC (revision 4) definitions.

Code	Description	Code	Description
Food and beverages		2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
10	***Manufacture of food products***	2029	Manufacture of other chemical products n.e.c.
1010	Processing and preserving of meat	2030	Manufacture of man-made fibres
1020	Processing and preserving of fish, crustaceans and molluscs	**22**	**Manufacture of rubber and plastics products**
1030	Processing and preserving of fruit and vegetables	2211	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres
1040	Manufacture of vegetable and animal oils and fats	2219	Manufacture of other rubber products
1050	Manufacture of dairy products	2220	Manufacture of plastics products
1061	Manufacture of grain mill products	**Construction**	
1062	Manufacture of starches and starch products	***41***	***Construction of buildings***
1071	Manufacture of bakery products	4100	Construction of buildings
1072	Manufacture of sugar	***42***	***Civil engineering***
1073	Manufacture of cocoa, chocolate and sugar confectionery	4210	Construction of roads and railways
1074	Manufacture of macaroni, noodles, couscous and similar farinaceous products	4220	Construction of utility projects
1075	Manufacture of prepared meals and dishes	4290	Construction of other civil engineering projects
1079	Manufacture of other food products n.e.c.	***43***	***Specialized construction activities***
1080	Manufacture of prepared animal feeds	4311	Demolition
11	***Manufacture of beverages***	4312	Site preparation
1101	Distilling, rectifying and blending of spirits	4321	Electrical installation
1102	Manufacture of wines	4322	Plumbing, heat and air-conditioning installation
1103	Manufacture of malt liquors and malt	4329	Other construction installation
1104	Manufacture of soft drinks; production of mineral waters and other bottled waters	4330	Building completion and finishing
Garment, Footwear and Apparel		4390	Other specialized construction activities
13	***Manufacture of textiles***	**Transportation, Warehousing and Logistics**	
1311	Preparation and spinning of textile fibres	***49***	***Land transport and transport via pipelines***
1312	Weaving of textiles	4911	Passenger rail transport, interurban
1313	Finishing of textiles	4912	Freight rail transport
1391	Manufacture of knitted and crocheted fabrics	4921	Urban and suburban passenger land transport
1392	Manufacture of made-up textile articles, except apparel	4922	Other passenger land transport
1393	Manufacture of carpets and rugs	4923	Freight transport by road
1394	Manufacture of cordage, rope, twine and netting	4930	Transport via pipeline
1399	Manufacture of other textiles n.e.c.	***50***	***Water transport***
14	***Manufacture of wearing apparel***	5011	Sea and coastal passenger water transport
1410	Manufacture of wearing apparel, except fur apparel	5012	Sea and coastal freight water transport
1420	Manufacture of articles of fur	5021	Inland passenger water transport
1430	Manufacture of knitted and crocheted apparel	5022	Inland freight water transport
15	***Manufacture of leather and related products***	***51***	***Air transport***
1511	Tanning and dressing of leather; dressing and dyeing of fur	5110	Passenger air transport
1512	Manufacture of luggage, handbags and the like, saddlery and harness	5120	Freight air transport
1520	Manufacture of footwear	***52***	***Warehousing and support activities for transportation***
Rubber and Plastics		5210	Warehousing and storage
20	***Manufacture of chemicals and chemical products***	5221	Service activities incidental to land transportation
2011	Manufacture of basic chemicals	5222	Service activities incidental to water transportation
2012	Manufacture of fertilizers and nitrogen compounds	5223	Service activities incidental to air transportation
2013	Manufacture of plastics and synthetic rubber in primary forms	5224	Cargo handling
2021	Manufacture of pesticides and other agrochemical products	5229	Other transportation support activities
2022	Manufacture of paints, varnishes and similar coatings, printing ink and mastics		

Code	Description	Code	Description
Accommodation		6491	Financial leasing
55	***Accommodation***	6492	Other credit granting
5510	Short term accommodation activities	6499	Other financial service activities, except insurance and pension funding activities, n.e.c.
5520	Camping grounds, recreational vehicle parks and trailer parks	***65***	***Insurance, reinsurance and pension funding, except compulsory social security***
5590	Other accommodation	6511	Life insurance
Information Communication Technology		6512	Non-life insurance
61	***Telecommunications***	6520	Reinsurance
6110	Wired telecommunications activities	6530	Pension funding
6120	Wireless telecommunications activities	***66***	***Activities auxiliary to financial service and insurance activities***
6130	Satellite telecommunications activities	6611	Administration of financial markets
6190	Other telecommunications activities	6612	Security and commodity contracts brokerage
62	***Computer programming, consultancy and related activities***	6619	Other activities auxiliary to financial service activities
6201	Computer programming activities	6621	Risk and damage evaluation
6202	Computer consultancy and computer facilities management activities	6622	Activities of insurance agents and brokers
6209	Other information technology and computer service activities	6629	Other activities auxiliary to insurance and pension funding
63	***Information service activities***	6630	Fund management activities
6311	Data processing, hosting and related activities	**Education**	
6312	Web portals	***85***	***Education***
6391	News agency activities	8521	General secondary education
6399	Other information service activities n.e.c.	8522	Technical and vocational secondary education
Finance and Insurance		8530	Higher education
64	***Financial service activities, except insurance and pension funding***	**Human Health Activities**	
6411	Central banking	***86***	***Human health activities***
6419	Other monetary intermediation	8610	Hospital activities
6420	Activities of holding companies	8620	Medical and dental practice activities
6430	Trusts, funds and similar financial entities	8690	Other human health activities

D- Additional Figures and Tables

Figure D.1: Year of starting business by nationality of ownership

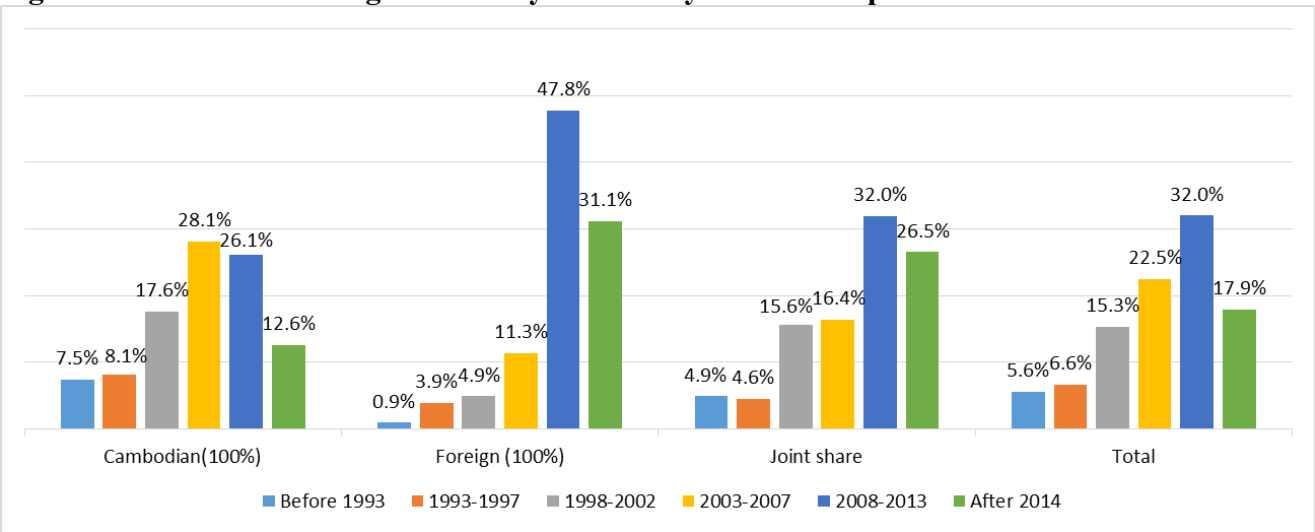


Figure D-2: Share of establishment by type of market

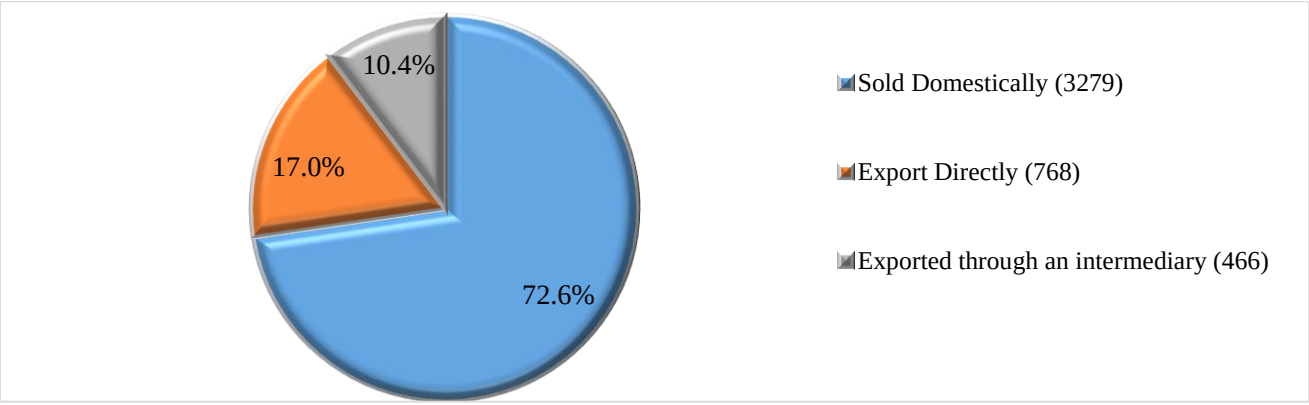


Table D-1: Distribution of establishment by sector and type of business entity

Sector	Individual proprietor	General partnership	Limited partnership	Private limited establishment	Public limited establishment	State owned organization NGO	Othe	Total
Absolute Value								
Accommodation	538	32	9	101	0	0	0	**680**
Construction	58	10	11	36	0	0	0	**116**
Education	42	6	14	12	0	52	6	**134**
Finance and insurance	64	99	107	88	67	12	14	**449**
Food and beverage	459	31	2	26	2	0	29	**549**
Garment, footwear and apparel	1327	179	178	221	11	0	79	**1993**
Health	19	2	7	6	0	84	9	**127**
ICT	83	34	6	30	0	27	7	**187**
Logistics, warehousing and transportation	105	19	23	43	0	3	3	**195**
Rubber and plastics	76	34	3	22	3	3	0	**141**
Total	**2769**	**446**	**361**	**586**	**82**	**181**	**146**	**4571**
Percentage composition by type of business entity (%)								
Accommodation	79.0	4.7	1.4	14.9	0	0	0	100
Construction	50.3	9.0	9.8	31.0	0	0	0	100
Education	31.6	4.7	10.7	9.2	0	39.0	4.7	100
Finance and insurance	14.2	22.0	23.8	19.6	14.8	2.6	3.0	100
Food and beverage	83.6	5.6	0.4	4.8	0.4	0	5.3	100
Garment, footwear and apparel	66.5	9.0	8.9	11.1	0.5	0	4.0	100
Health	14.6	1.7	5.6	5.0	0	66.0	7.2	100
ICT	44.4	18.4	3.3	16.1	0	14.3	3.5	100
Logistics, warehousing and transportation	53.6	9.9	11.5	22.1	0	1.6	1.3	100
Rubber and plastics	53.7	23.9	2.2	15.8	2.2	2.2	0	100
Total	60.6	9.8	7.9	12.8	1.8	4.0	3.2	100

Table D-2: Ownership of establishments and registration rates by sectors

Sector	Ownership (%)			Registration Rates (%)
	Cambodian	Foreign	Joint share	
Accommodation	89.9	9.1	1.0	99.0
Construction	79.4	16.8	3.8	95.3
Education	96.2	2.3	1.5	100.0
Finance and insurance	45.1	20.7	34.2	100.0
Food and beverage	96.7	2.9	0.5	75.2
Garment, footwear and apparel	55.2	34.1	10.6	63.0
Health	87.9	4.7	7.4	100.0
ICT	42.5	39.5	18.0	98.7
Logistics, warehousing and transportation	81.2	16.6	2.2	91.8
Rubber and plastics	43.7	54.4	1.8	90.7
Total	**65.5**	**22.9**	**9.2**	**79.9**

Table D-3: Employment structure by occupation and sector in 2017

		ISCO_1	ISCO_2	ISCO_3	ISCO_4	ISCO_5	ISCO_6	ISCO_7	ISCO_8	ISCO_9	Grand Total	
											%	Absolute Value
Row percentage												
Accommodation		5.6%	3.2%	5.6%	16.7%	33.9%	1.3%	3.3%	6.4%	24.0%	100.0%	**36,680**
Construction		7.4%	11.5%	15.7%	2.9%	3.7%	0.3%	19.0%	20.3%	19.2%	100.0%	**7,542**
Education		9.8%	52.8%	13.6%	9.0%	4.5%	0.3%	0.2%	0.5%	9.3%	100.0%	**14,561**
Finance and insurance		7.5%	13.7%	28.5%	32.2%	9.6%	0.0%	0.2%	0.6%	7.7%	100.0%	**78,611**
Food and Beverage		9.9%	9.9%	4.3%	5.9%	25.9%	0.2%	5.2%	5.2%	33.5%	100.0%	**17,035**
Garment, footwear and apparel		2.8%	0.6%	1.0%	0.6%	0.5%	0.7%	4.5%	79.8%	9.5%	100.0%	**742,944**
Health		6.6%	23.7%	39.5%	9.3%	1.6%	0.0%	0.5%	1.1%	17.8%	100.0%	**8,497**
ICT		10.0%	13.6%	24.8%	14.8%	25.5%	0.0%	1.0%	5.8%	4.5%	100.0%	**14,012**
Logistics, warehousing and transportation		6.7%	7.8%	16.8%	9.5%	11.5%	0.0%	2.9%	19.5%	25.2%	100.0%	**10,233**
Rubber and plastics		3.5%	1.4%	3.8%	2.3%	1.9%	46.6%	28.6%	3.8%	8.1%	100.0%	**32,858**
Total		3.7%	3.4%	4.8%	4.5%	3.6%	2.3%	4.9%	62.2%	10.5%	100.0%	**962,972**
Column composition												
Accommodation		5.7%	3.7%	4.5%	14.2%	36.2%	2.2%	2.6%	0.4%	8.8%		
Construction		1.6%	2.8%	2.7%	0.5%	0.8%	0.1%	3.1%	0.3%	1.5%		
Education		4.0%	23.9%	4.3%	3.0%	1.9%	0.2%	0.1%	0.0%	1.4%		
Finance and insurance		16.8%	34.6%	50.2%	60.1%	22.4%	0.0%	0.4%	0.1%	6.2%		
Food and Beverage		4.8%	5.4%	1.6%	2.4%	13.2%	0.2%	1.9%	0.2%	5.8%		
Garment, footwear and apparel		56.7%	13.9%	16.1%	9.7%	10.7%	24.3%	69.9%	98.5%	69.3%		
Health		1.6%	6.5%	7.6%	1.9%	0.4%	0.0%	0.1%	0.0%	1.6%		
ICT		3.7%	5.7%	7.2%	4.5%	9.9%	0.0%	0.3%	0.1%	0.6%		
Logistics, warehousing and transportation		1.5%	2.0%	2.9%	1.8%	2.7%	0.0%	0.5%	0.3%	2.0%		
Rubber and plastics		3.4%	1.6%	2.9%	1.9%	1.9%	73.1%	21.2%	0.2%	2.8%		
Grand Total	**%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**		
	Absolute Value	**36,028**	**32,267**	**46,092**	**43,594**	**34,634**	**22,489**	**47,554**	**599,256**	**101,058**		

Note:

ISCO_1: Managers
ISCO_2: Professionals
ISCO_3: Technical and associated professionals
ISCO_4: Clerical support workers
ISCO_5: Service and sales workers
ISCO_6: Skilled agriculture, forestry, and fishery workers
ISCO_7: Craft and related trades workers
ISCO_8: Plant and machine operators, and assemblers
ISCO_9: Elementary occupations

Table D-4: Density of vacancies by sector and occupation

Density (%)	ISCO_1	ISCO_2	ISCO_3	ISCO_4	ISCO_5	ISCO_6	ISCO_7	ISCO_8	ISCO_9
Accommodation	0.2	6.7	4.4	33.2	13.0	2.3	6.1	0.3	6.3
Construction	0.6	7.6	4.7	6.0	4.4	0.0	1.6	0.3	13.8
Education	0.6	7.8	2.3	4.0	8.5	0.0	44.1	0.0	0.3
Finance and insurance	0.3	1.2	17.0	1.5	3.1	0.0	0.0	0.0	0.5
Food and beverage	0.6	5.0	3.3	2.0	13.8	0.0	12.3	3.1	3.4
Garment, footwear and apparel	0.0	2.0	0.7	3.6	3.8	0.0	2.4	2.5	0.6
Health	1.1	6.6	0.6	1.3	3.1	0.0	4.7	0.0	0.0
ICT	0.4	15.0	4.4	1.1	4.5	0.0	47.5	0.0	0.0
Logistics, warehousing and transportation	1.2	1.9	0.8	6.4	9.8	0.0	0.0	25.2	2.0
Rubber and plastics	0.0	0.9	0.2	0.5	37.5	4.4	0.0	6.4	0.0
Total	0.3	5.6	8.6	6.3	9.6	3.6	3.0	2.7	2.1

Note:

ISCO_1: Managers
ISCO_2: Professionals
ISCO_3: Technical and associated professionals
ISCO_4: Clerical support workers
ISCO_5: Service and sales workers
ISCO_6: Skilled agricultural, forestry, and fishery workers
ISCO_7: Craft and related trades workers
ISCO_8: Plant and machine operators, and assemblers
ISCO_9: Elementary occupations

Table D-5: Distribution and density of hard to fill vacancies by sector and occupation (% of total vacancies)

Distribution (%)	**ISCO_1**	**ISCO_2**	**ISCO_3**	**ISCO_4**	**ISCO_5**	**ISCO_7**	**ISCO_8**	**ISCO_9**	**Total**
Accommodation	0.2	0.5	1.6	32.4	45.2	1.2	0.0	18.4	100.0
Construction	2.3	48.8	11.6	4.7	11.6	20.9	0.0	0.0	100.0
Education	1.1	80.0	3.3	7.8	6.7	0.0	0.0	1.1	100.0
Finance and insurance	0.2	1.5	88.9	4.0	5.0	0.0	0.0	0.4	100.0
Food and beverage	0.0	2.1	0.0	1.6	77.6	2.1	2.6	14.1	100.0
Garment, footwear and apparel	0.0	5.1	1.9	0.0	3.7	11.1	78.2	0.0	100.0
Health	9.1	60.6	21.2	3.0	6.1	0.0	0.0	0.0	100.0
ICT	1.4	53.8	31.5	0.7	12.6	0.0	0.0	0.0	100.0
Logistics, warehousing and transportation	9.1	18.2	0.0	9.1	12.1	0.0	27.3	24.2	100.0
Rubber and plastics	0.0	33.3	0.0	0.0	66.7	0.0	0.0	0.0	100.0
Total	0.6	11.1	40.8	9.3	21.1	2.1	9.0	5.8	100.0
Density (%)	**ISCO_1**	**ISCO_2**	**ISCO_3**	**ISCO_4**	**ISCO_5**	**ISCO_7**	**ISCO_8**	**ISCO_9**	**Total**
Accommodation	100.0	7.7	21.9	27.1	33.2	20.0	0.0	44.9	31.5
Construction	100.0	65.6	21.7	28.6	83.3	56.3	0.0	0.0	26.4
Education	25.0	27.0	15.8	29.2	21.4	0.0	0.0	50.0	25.7
Finance and insurance	40.0	40.6	74.2	37.8	70.5	0.0	0.0	42.9	70.1
Food and beverage	0.0	12.9	0.0	50.0	67.7	11.8	62.5	61.4	54.7
Garment, footwear and apparel	0.0	100.0	57.1	0.0	44.4	26.4	9.3	0.0	10.7
Health	100.0	29.9	63.6	25.0	100.0	0.0	0.0	0.0	37.5
ICT	100.0	72.6	86.5	12.5	34.0	0.0	0.0	0.0	57.9
Logistics, warehousing and transportation	100.0	75.0	0.0	10.3	5.9	0.0	4.0	28.6	9.0
Rubber and plastics	0.0	100.0	0.0	0.0	16.7	0.0	0.0	0.0	1.2
Total	61.9	39.1	70.2	27.1	41.0	21.1	8.9	30.6	31.7

Note:

ISCO_1: Managers
ISCO_2: Professionals
ISCO_3: Technical and associated professionals
ISCO_4: Clerical support workers
ISCO_5: Service and sales workers
ISCO_7: Craft and related trades workers
ISCO_8: Plant and machine operators, and assemblers
ISCO_9: Elementary occupations

*ISCO_6: Skilled agricultural, forestry, and fishery workers were not reported due to few observations

Table D-6: Cause of hard to fill vacancies by sector (% of establishment reported hard-to-fill vacancies)

	Sec-1	Sec-2	Sec-3	Sec-4	Sec-5	Sec-6	Sec-7	Sec-8	Sec-9	Sec-10
Too much competition from other employers	58.4	18.8	7.7	39.0	25.8	52.6	33.3	33.3	29.4	0.0
Not enough people interested in doing this type of job	40.3	6.3	19.2	39.0	25.8	21.1	27.8	41.7	17.6	0.0
Poor terms and conditions (e.g. pay) offered for post	26.0	31.3	3.8	24.4	12.9	5.3	5.6	8.3	5.9	0.0
Low number of applicants with the required skills	57.1	6.3	26.9	41.5	16.1	42.1	61.1	50.0	23.5	100.0
Low number of applicants with the required attitude, motivation or personality	23.4	6.3	15.4	26.8	35.5	26.3	16.7	12.5	17.6	0.0
Low number of applicants generally	46.8	6.3	38.5	14.6	41.9	31.6	11.1	25.0	23.5	0.0
Lack of work experience the company demands	45.5	25.0	46.2	24.4	3.2	31.6	33.3	37.5	11.8	0.0
Lack of qualifications the company demands	35.1	6.3	15.4	17.1	0.0	21.1	38.9	4.2	5.9	0.0
Poor career progression/lack of prospects	5.2	18.8	3.8	2.4	29.0	5.3	5.6	8.3	5.9	0.0
Job entails shift work/unsociable hours	14.3	12.5	0.0	4.9	6.5	0.0	11.1	12.5	11.8	0.0
Seasonal work	13.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.0
Remote location/poor public transport	2.6	12.5	0.0	12.2	0.0	10.5	16.7	4.2	0.0	0.0
Others	0.0	6.3	0.0	4.9	0.0	5.3	5.6	0.0	5.9	0.0

Note:

Sec-1: Accommodation
Sec-2: Construction
Sec-3: Education
Sec-4: Finance and insurance
Sec-5: Food and beverage
Sec-6: Garment, footwear and apparel
Sec-7: Health
Sec-8: ICT
Sec-9: Logistics, warehousing and transportation
Sec-10: Rubber and plastics

- The table shows the proportion of hard-to-fill vacancies caused by each factor reported by employers.
- The sum of percentages exceeds 100% because of multiple choices.

Table D-7: Cause of hard to fill vacancies by occupation (% of establishment reported hard-to-fill vacancies)

	ISCO_1	ISCO_2	ISCO_3	ISCO_4	ISCO_5	ISCO_7	ISCO_8	ISCO_9
Too much competition from other employers	30.0	23.4	26.5	45.5	49.3	53.8	55.6	42.9
Not enough people interested in doing this type of job	30.0	17.2	38.8	27.3	39.4	15.4	11.1	47.6
Poor terms and conditions (e.g. pay) offered for post	20.0	17.2	16.3	12.1	18.3	0.0	0.0	33.3
Low number of applicants with the required skills	60.0	37.5	55.1	48.5	32.4	69.2	11.1	19.0
Low number of applicants with the required attitude, motivation or personality	10.0	15.6	22.4	18.2	26.8	30.8	11.1	33.3
Low number of applicants generally	50.0	23.4	26.5	27.3	31.0	23.1	55.6	52.4
Lack of work experience the company demands	30.0	29.7	42.9	33.3	25.4	46.2	22.2	19.0
Lack of qualifications the company demands	40.0	15.6	26.5	27.3	15.5	23.1	0.0	4.8
Poor career progression/lack of prospects	0.0	10.9	0.0	9.1	9.9	7.7	22.2	14.3
Job entails shift work/unsociable hours	0.0	1.6	10.2	12.1	9.9	7.7	22.2	19.0
Seasonal work	0.0	0.0	2.0	6.1	8.5	0.0	11.1	4.8
Remote location/poor public transport	0.0	6.3	14.3	0.0	4.2	0.0	0.0	4.8
Others	0.0	3.1	2.0	3.0	1.4	7.7	0.0	0.0

Note:

ISCO_1: Managers
ISCO_2: Professionals
ISCO_3: Technical and associated professionals
ISCO_4: Clerical support workers
ISCO_5: Service and sales workers
ISCO_7: Craft and related trades workers
ISCO_8: Plant and machine operators, and assemblers
ISCO_9: Elementary occupations

*ISCO_6: Skilled agricultural, forestry, and fishery workers were not reported due to few observations

Table D-8: Distribution and density of skills shortages vacancies by sector and occupation (% of total vacancies)

Distribution	ISCO_1	ISCO_2	ISCO_3	ISCO_4	ISCO_5	ISCO_7	ISCO_8	ISCO_9	Total
Accommodation	0.5	0.5	2.9	65.5	20.4	2.4	0.0	6.8	100.0
Construction	0.0	68.2	22.7	0.0	0.0	9.1	0.0	0.0	100.0
Education	1.8	87.7	3.5	7.0	0.0	0.0	0.0	0.0	100.0
Finance and insurance	0.0	2.0	87.2	0.5	10.2	0.0	0.0	0.0	100.0
Food and beverage	0.0	0.0	0.0	0.0	71.2	6.1	0.0	22.7	100.0
Garment, footwear and apparel	0.0	13.6	4.9	0.0	0.0	13.6	67.9	0.0	100.0
Health	16.7	44.4	22.2	5.6	11.1	0.0	0.0	0.0	100.0
ICT	2.5	40.0	33.8	1.3	22.5	0.0	0.0	0.0	100.0
Logistics, warehousing and transportation	20.0	20.0	0.0	6.7	0.0	0.0	46.7	6.7	100.0
Rubber and plastics	0.0	33.3	0.0	0.0	66.7	0.0	0.0	0.0	100.0
Total	1.3	16.8	29.4	19.2	17.6	3.0	8.3	4.0	100.0
Density	**ISCO_1**	**ISCO_2**	**ISCO_3**	**ISCO_4**	**ISCO_5**	**ISCO_7**	**ISCO_8**	**ISCO_9**	**Total**
Accommodation	100.0	3.8	18.8	26.3	7.2	20.0	0.0	8.0	15.1
Construction	0.0	46.9	21.7	0.0	0.0	12.5	0.0	0.0	13.5
Education	25.0	18.7	10.5	16.7	0.0	0.0	0.0	0.0	16.3
Finance and insurance	0.0	12.5	16.7	1.1	32.8	0.0	0.0	0.0	16.1
Food and beverage	0.0	0.0	0.0	0.0	21.4	11.8	0.0	34.1	18.8
Garment, footwear and apparel	0.0	100.0	57.1	0.0	0.0	12.1	3.0	0.0	4.0
Health	100.0	11.9	36.4	25.0	100.0	0.0	0.0	0.0	20.5
ICT	100.0	30.2	51.9	12.5	34.0	0.0	0.0	0.0	32.4
Logistics, warehousing and transportation	100.0	37.5	0.0	3.4	0.0	0.0	3.1	3.6	4.1
Rubber and plastics	0.0	100.0	0.0	0.0	16.7	0.0	0.0	0.0	1.2
Total	47.6	21.5	18.5	20.4	12.5	11.1	3.0	7.8	11.6

Note:

ISCO_1: Managers
ISCO_2: Professionals
ISCO_3: Technical and associated professionals
ISCO_4: Clerical support workers
ISCO_5: Service and sales workers
ISCO_6: Skilled agricultural, forestry, and fishery workers
ISCO_7: Craft and related trades workers
ISCO_8: Plant and machine operators, and assemblers
ISCO_9: Elementary occupations

E- Employer Survey Questionnaire 2017

Good morning/afternoon. My name is……..I am from the National Employment Agency of the Ministry of Labour and Vocational Training. We are conducting a survey of employer, which aims to identify skills required and future skills needed in your establishment. The information collected is strictly confidential and will be used only for statistical purpose. We would appreciate if you would dedicate some of your time to answer all the following questions.

Ordinal Number of Questionnaire: _____

Interview Record

Interviewer's name:_____
Telephone number: _____
Date of interview: _____
Time started:_____Time completed:_____

Quality Control by team leader

Survey team leader's name:_____Date: _____
Telephone number: _____ signature:_____

Remarks:_____

Quality Control by NEA team

Survey team leader's name:_____Date: _____
Telephone number: _____ signature:_____

Remarks: _____

Quality Control by technical team

Name:_____Time:_____signature:_____
Remarks:_____

Data Entry Record

Name of data encoder: _____Date: _____
Remarks: _____

Records on data cleaning and entry

Name of data cleaning person: _____Date: _____
Remarks: _____

Section A – Firmographics

A1. Name of the establishment in Khmer:_____
A2. Name of the establishment in English:_____
A3. Address of the establishment: Building no_____ street_____
village_____commune/sangkat_____district_____province/city_____
A4. Address note:_____
A5. Name of contact person:_____ **A6.** Position of contact person_____
A7. Contact person (Tel. no.) (1)_____(2)_____
A8. Office Tel. no._____ **A9.** Contact person (email)_____

If the interviewee is different from contact person
A10. Name of the interviewee_____ **A11.** Position of the interviewee_____
A12. Interviewee phone no._____ **A13.** Interviewee's office tel. no._____
A14. Interviewee (email)_____

A15. When did your establishment start business? Year: |__|__|__|__|

A16. Has your establishment been registered at the Ministry of Commerce or Provincial Department of Commerce or other institution?	Registered	1
	Not registered	2

A17. The establishment is a/an:	Individual proprietor	1
	General partnership	2
	Limited partnership	3
	Private limited establishment	4
	Public limited establishment	5
	State owned organization (Include Autonomous organization)	6
	Others (specify:_____)	7

A18. The establishment is a:	Single unit	1
	Head office	2
	Branch Office	3

A19. What share of this company is owned:	Cambodian (100%)	1
	Foreign (100%); Specify nationalities:_____	2
	Joint share; Specify the majority of share's nationalities:_____	3

A20. Could you please briefly describe the main business activity of the establishment, and indicate your main products or services, and your customers:_____
_____

Code ISIC: |__|__|__|__|

A21. Of the total output, please indicate what share is:	Sold domestically	_____%
	Exported directly	_____%
	Exported through an intermediary (indirect export)	_____%

Section B - Market development and capacity

B1. Could you please give an assessment of demand for your goods/services/production?

	Decreased	Unchanged	Increased
Last year	☐	☐	☐
Next year	☐	☐	☐
Next two years	☐	☐	☐

B2. By how much can your workplace increase production or operation responding to the increase of sales of products and services *before you need to increase the workforce by hiring new staff*?

(Percentage)	0	1-5	6-10	11-20	21-30	30+

Section C - Employment

C1. Could you please indicate the number of employees at your workplace in the following years, including yourself? (Estimate the approximate number based on your knowledge of your enterprise and your industry).

	31/12/2016	Present	31/12/2017	31/12/2018	31/12/2019
Total	_____	_____	_____	_____	_____
Female	_____	_____	_____	_____	_____
Foreigner	_____	_____	_____	_____	_____

C2. Could you please indicate how many employees of your establishment work in each of the following occupations (In case of more than one occupation, choose the main one i.e. the one that takes up the greatest proportion of time and please write 0 if the occupation is not applicable)**:**

Occupation	**Number of people**		
	Present		
	Total	Female	Foreigner
Managers *(This category includes chief executives; general and corporate managers; managing director; administrative, finance, production, service and sale manager; and regional and branch manager who plan, direct and coordinate the policies and activities of business and other organization.)*			
Professionals *(Professionals increase the existing of knowledge, apply scientific or artistic concepts and theories, or teach in a systematic manner. Most occupations in this category- such as engineers, lawyers, economists, computing professionals, teachers and health professionals- require skills at graduate and postgraduate education.)*			
Technicians and associate professionals *(This category performs mostly technical and related tasks connect with research and application of scientific, artistic, or operational methods. These occupations include accounting associate professionals, office supervisors, construction supervisor, industrial robot controllers, photographers, medical assistants, and chef which typically require skills at upper secondary or tertiary education,.)*			
Clerical support workers *(This category performs clerical duties with associated with money-handling operations, travel arrangements, requests for information and arrangement. Most of these jobs, such as general office clerks, payroll clerks, stock clerks, receptionists, transport clerks, secretariesand HR assistant, or bank tellers and bank clerks require skills at least lower secondary educations.)*			
Service and sale workers *(This category provides personal services related to travel, housekeeping, catering, personal care, or protection, or they demonstrate and sell goods. These occupations include cleaning and housekeeping, stall salespersons, cooks, cashiers and ticket clerks, or contact center salespersons which require skills at least lower secondary education.)*			
Skilled agricultural, forestry, and fishery workers *(This group includes occupations that require skills at least secondary education or equivalent critical skills and knowledge such as agricultural crop growers, mixed crop growers, gardeners, animal producers, and dairy and livestock producers.)*			
Craft and related trades workers *(This group applies their skills in the fields of mining and construction, making or repairing machinery, printing, processed food, textiles, or articles including handicrafts goods which involve the performance of complex physical duties that normally involve initiative, manual dexterity and other practical skills. Most of these occupations, such as bakers, garment workers, welders, builders, plumbers, air conditioning and refrigerator mechanics, bricklayers, or electronic mechanics require a substantial period of training.)*			
Plant and machine operators, and assemblers *(This group operates and monitors industrial and agricultural machinery and equipment, drives and operates*			

motor vehicles and mobile machinery, or assembles products. Most occupations have not a particular standard of education but will usually have formal experience related training which include drivers, chemical products plant and machine operators, glass plant operators, electrical and electronic equipment assemblers.)			
Elementary occupations *(This group consists of simple and routine tasks that mainly require the use of hand tools plus physical effort. Most occupations in this group, such as kitchen helpers, manufacturing labourers, hand packers, construction workers, messengers package deliverers and luggage porters, vehicle and laundry cleaning workers, cleaners, building caretakers, or laborers do not require formal education qualification.)*			

C3. Could you please indicate the number of people have left or will leave and the number of people have been or will be recruited at your establishment? *(State the number of persons and make an estimate about the future)*

	Last 12 months	Next 12 months
Number of people have left or will leave (Retirement and other departures)	_____	_____
Number of people have been or will be recruited (Replacements and new recruits)	_____	_____

C4. Could you please indicate the number of persons that has left from your establishment in the last 12 months? *(Quits are generally voluntary separations initiated by the employee. Layoffs or discharges are involuntary separations initiated by the employer. Other separations include separations due to retirement, death, disability, and transfers to other locations of the same firm).*

	Total			**Foreigner**		
	Quit	layoffs or discharges	other separations	Quit	layoffs or discharges	other separations
Managers						
Professionals						
Technicians and associate professionals						
Clerical support workers						
Service and sale workers						
Skilled agricultural, forestry, and fishery workers						
Craft and related trades workers						
Plant and machine operators, and assemblers						
Elementary occupations						

C5. Could you please indicate the number of persons that has been recruited in the last 12 months?

	Total (Cambodian and Foreigner)		**Foreigner**	
	Total number of recruits	No. of recruit to replace people who left, retired, or promoted	Total number of recruits	No. of recruit to replace people who left, retired, or promoted
Managers				
Professionals				
Technicians and associate professionals				
Clerical support workers				
Service and sale workers				
Skilled agricultural, forestry, and fishery workers				
Craft and related trades workers				
Plant and machine operators, and assemblers				
Elementary occupations				

Section D – Employers' perception on first time job seeker

D1. In the last 12 months, has your establishment filled any vacant full-time or part-time positions?

Yes	1	Go to D.2
No	2	Go to E.1

D2. If yes, has your establishment hired any first time job seekers that were leaving higher secondary school; technical and vocational schools; or university?

Yes; specify the number:_____	1	Go to D.3
No	2	Go to E.1

D3. Which type of education have any of these been first time job seeker coming from? How well did they prepare for work for each category? (Please using from 1- very poorly prepared to 5 very well prepared to evaluate their readiness)

	Specify number of hired	Score (from 1 to 5)
Higher secondary school		
Pre-secondary technical and vocational school (TVET)		
Post- secondary technical and vocational school (TVET)		
University or other higher educational institutions		

IF THE PREPARATION FOR WORK OF THE NEWLY HIRED WAS EVALUATED 1 OR 2, GO TO D.4. OTHERWISE, GO TO E1

D4. In which of the following areas was the preparation of the newly hired was lacking *(you can select up to 5 relevant fields for each group)*:

	Higher secondary school	Pre-secondary TVET	Post-secondary TVET	University or other HE institutions
Literacy/numeracy skills	1	1	1	1
Poor education/training	2	2	2	2
Lack of common sense	3	3	3	3
Poor attitude/personality	4	4	4	4
Lack of working world/life experience	5	5	5	5
Lack of self motivation	6	6	6	6
English language skills	7	7	7	7
Chinese language skills	8	8	8	8
Other language skills	9	9	9	9
Communication skills	10	10	10	10
Team work skills	11	11	11	11
Basic IT skills	12	12	12	12
Technical skill	13	13	13	13
Practical skill	14	14	14	14
Other (Specify_____)	15	15	15	15

Section E - Skills Gaps

E1. Do you have any problems related to your employees who do not perform jobs at the required level?

Yes , number of employee_____	1	Go to E.2
No	2	Go to E.4

E2. Could you please indicate in which occupations the problem is more severe, the number of people does not perform jobs at the required level, and total number of employees in that occupation? *(List up to 5 occupations in order of severity of the problem)*

Occupations	Number of employees do not perform jobs at the required level	Total number of employees in this occupation
1:_____		
2:_____		
3:_____		
4:_____		
5:_____		

E3. Which of the following factors cause your employees not being able to do their jobs up to the required level *(You can select all relevant answers)*

Training is currently only partially completed	1
New to the role	2
Been on training but their performance has not improve sufficiently	3
Staff lack motivation	4
Introduction of new working practices	5
Not received the appropriate training	6
Introduction of new technology	7
Unable to recruit staff with the required skills	8
Problem retaining staff	9
Other factors (please specify_____)	10

E4. In the last 12 months, did your employees participate in any external or internal training courses, completely or partially financed by the establishment?

Yes	1	Go to E.5
No	2	Go to F.1

E5. Does your establishment have a training plan or budget that specifies in advance the level and type of training employee will need in the coming year?

Training plan	1
Training budget	2

E6. In which areas did your establishment finance or arrange the training? *(You can select all relevant answers)*

Basic computer literacy / using IT skills	1
Advanced IT or software skills	2
Oral communication skills	3
Written communication skills	4
Customer handing skills	5
Team working skills	6
Foreign language skills	7
Problem solving skills	8
Planning and organization skills	9
Strategic Management skills	10
Numeracy skills	11
Literacy skills	12
Office administrative skills	13
Technical or practical skills	14

Introduction training	15
Occupational health and safety	16
Accounting and Finance	17
Human Resource Management	18
Other skills (please specify……..)	19

E7. Did your establishment experience difficulties in organizing the courses or in finding the trainers?

Yes	1	Go to E.8
No	2	Go to F.1

E8. What were the main reasons of the difficulties? (Select all that apply)

No or poor information on courses/ trainers	1
No or lack courses / trainers available	2
Low quality of courses on offer / low quality of trainers	3
Others (please specify……..)	4

Section F - Vacancies

F1. In this moment, do you have vacancies?

Yes (Number of vacancies_____)	1	Go to F.2
No	2	Go to G.1

F2. What is the overall recruitment situation currently faced by your company?

Very easy	1	Go to F.7
Easy	2	Go to F.7
Difficult	3	Go to F.3
Very difficult	4	Go to F.3

F3. If difficult and very difficult, state the number of vacancies where you have encountered recruitment difficulty: _____

F4. Have you refrained from trying to recruit because of recruitment difficulty?

Yes	1	Go to F.5
No	2	Go to F.6

F5. If yes, state the number of vacancies for which you have not even tried to recruit owing to a shortage of qualified labour or recruitment difficulty: _____

F6. How was recruitment affected by the recruitment difficulty?

We were unable to recruit staff	1
It took longer than normal to recruit	2
We lowered our requirements for qualification (Education/Training)	3
We lowered our requirements for experience	4
We lowered our requirements for skills	5
We recruited abroad	6
We offered higher pay	7
We offered other benefits	8
None	9
Other affects (specify:_____)	10

F7. Could you please tell us in which occupations do you have the most vacancies and its situation of recruitment? *(Please list up to 10 occupations)*

ISCO Code	Occupation names	Number of current employed people	Number of vacancies	Are any of these vacancies proving hard to fill? *(if no hard to fill, go to next occupation)*	Number of hard-to-fill vacancies	Ask only occupation with difficult recruitment situation	
						Reason for recruitment difficulty answer *(up to 5 options) (if G=4, 7, or 8, go to H and otherwise go to next occupation)*	Skill Lacking *(up to 5 options)*
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*
	1.						
	2.						
	3.						
	4.						
	5.						
	6.						
	7.						
	8.						
	9.						
	10.						

Note:

Code G-Reason for recruitment difficulty answer (up to 5 options)

1-Too much competition from other employers
2-Not enough people interested in doing this type of job
3-Poor terms and conditions (e.g. pay) offered for post
4-Low number of applicants with the required skills
5-Low number of applicants with the required attitude, motivation or personality
6-Low number of applicants generally
7-Lack of work experience the company demands
8-Lack of qualifications the company demands
9-Poor career progression / lack of prospects
10-Job entails shift work / unsociable hours
11-Seasonal work
12-Remote location / poor public transport
13-Others

Code H-Skill Lacking (up to 5 options)

1-Basic computer literacy / using IT
2-Advanced IT or software skills (Software)
3-Oral communication skills
4-Written communication skills
5-Customer handing skills
6-Team working skills
7-Foreign language skills
8-Problem solving skills
9-Planning and organization skills
10-Strategic Management skills
11-Numeracy skills
12-Literacy skills
13-Office admin skills
14-Technical or practical skills
15-Any other job specific skills

F8. Are hard-to-fill vacancies causing this establishment to… *(You can select all relevant answers)*

Lose business or orders to competitors	1
Delay developing new products or services	2
Have difficulties meeting quality standards	3
Experience increased operating costs	4
Have difficulties introducing new working practices	5
Increase workload for other staff	6
Outsource work	7
Withdraw from offering certain products or services altogether	8
Have difficulties meeting customer services objectives	9
Have difficulties introducing technological change	10
Internal training to existing staff	11
Planned expansion was postponed	12
We considered moving some or all of our production abroad	13
None	14
Others (specify:_____)	15

F9. What, if anything, is your establishment doing to overcome the difficulties that you are having finding candidates to fill these hard-to-fill vacancies? *(You can select all relevant answers)*

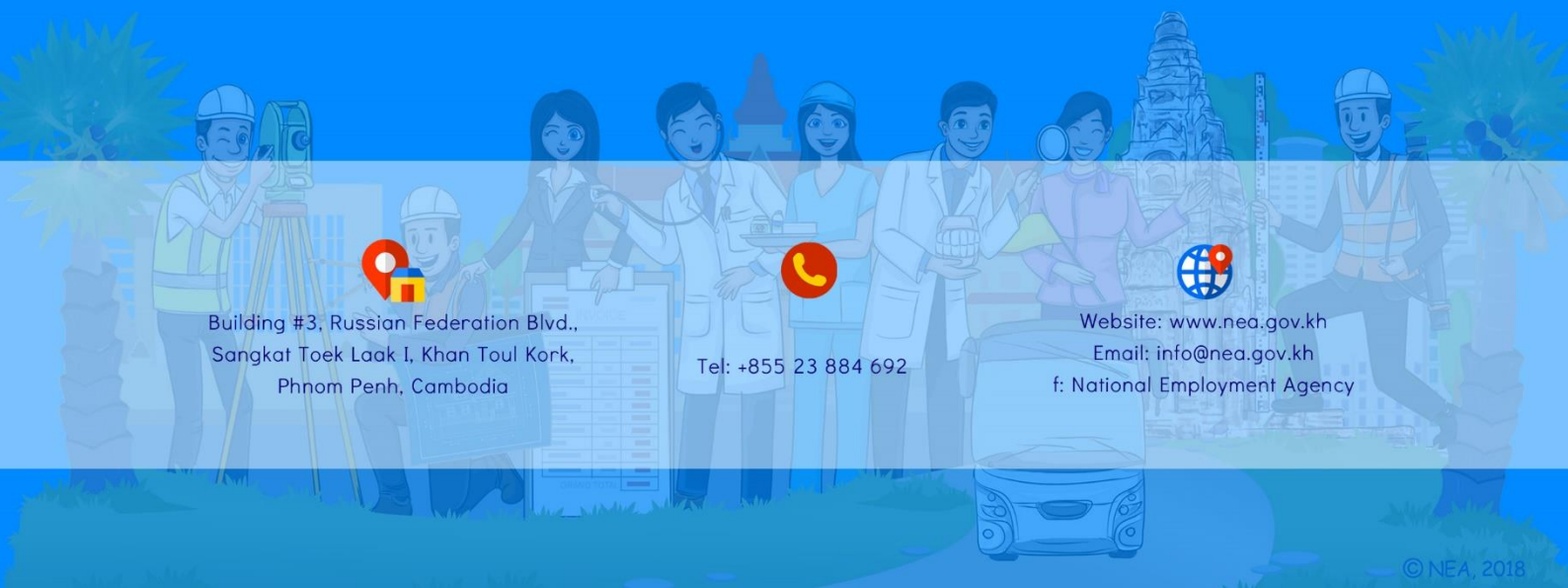
Increasing salaries	1
Increasing the training given to your existing workforce	2
Redefining existing jobs	3
Increasing advertising / recruitment spend	4
Increasing / expanding trainee programs	5
Using NEW recruitment methods or channels	6
Recruiting workers who are non-Cambodian nationals	7
Bringing in contractors to do the work, or contracting it out	8
Being prepared to offer training to less well qualified recruits	9
Increase labour productivity in the establishment	10
Increase working hours in the establishment	11
Nothing	12
Other (please specify…….)	13

Section G - Establishment‘s Business strategy

G1. Does your establishment plan to introduce new products, services, technologies or expand/switch to new markets?	Yes	1
	No (End interview here)	2

G2. Linked to these plans, does your establishment plan to apply any of the following measures to address newly emerging tasks?	Training of available staff	1
	Internal re-organization to better use available staff and competences	2
	Recruitment of new staff	3
	Other measures (Specify_____)	4

Thank you very much for taking your time to answer all the questions!



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