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# Executive Summary

This report attempts to explore the skills gaps and shortages problems in the Cambodian labour market using evidence from the employer skills needs survey as well as the Cambodian population census and various sources of macroeconomic data. .

The employer skills needs survey 2014 is the key primary data source on employer demand for and investment in skills. There were 528 establishments interviewed at the national level across 10 important sectors, which were major driving engines for employment generation as well as having a greater share in Cambodian GDP. The 10 sectors investigated include Food and Beverages; 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). Regarding the size of the establishment, the survey covered establishments with more than 10 employees because those establishments are more likely to provide accurate data on jobs and employment turnover by occupation and are able to provide a rough estimate of future skills demands.

The survey covered topics such as 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 seek and suggest policy recommendations for the skills mismatch and skills formation problems occurring in Cambodia from short-term mismatch perspectives and also from long-run development perspectives.

Headline findings of the study are provided below.

## **Aims of the study**

Cambodia experienced rapid and accelerated growth (9.5% for the 1998–2008 period) but observed a sudden stop of this growth during the global financial crisis in 2008 (0.1% in 2009) due to the related stagnation of world demand for Cambodian garment exports. Although the country has recovered rapidly from this crisis (7.1% for the 2010–2013 period), the experience has reminded the policy makers to reconsider the current growth engines and the needs to diversify the structure of the economy in order to sustain medium- and long-term growth, and to reduce poverty. This also reinforces the need for sustainable and stable growth, which requires robust and relevant (demand-meeting) supply of skills. Furthermore, the mismatch or shortage of skills supply implies lost opportunities of full utilization of FDI due to the unmet demands for labour by foreign investors, which is another engine of potential growth of Cambodia. Thus, solving the skills mismatch problems is of utmost importance in promoting sustainable growth and development in Cambodia.

## **Background information of Cambodian labour market**

It is acknowledged that there is a shortfall in the current supply of human resources or skills, whether measured by education and skills attainment of Cambodian population, in the necessary sectors. This phenomenon is occurring in most developing countries. However, Cambodia's problems seem to have their own features.



First, due to the massacres that occurred during the Khmer Rouge regime, Cambodia has been experiencing a demographic transition, with unique demographic compositional changes such that the group of experienced middle-aged workers is very small while the young baby-boom generation group is rapidly expanding. This has created a lack of skilled middle-aged workers in workplaces. Additionally, Cambodia has faced two notable challenges: the rapid expansion of a working age population (demand for employment) and the extraordinary increase in training age population (demand for education and training).

Second, Cambodian education is still affected by considerable structural problems, especially in rural areas. Infrastructure is still lacking, and in many cases the quality of education is extremely poor, classes are overcrowded, and there are still insufficient students. Therefore, although endowed with a labour surplus, Cambodia's labour force is still characterized by low education levels and low skills (58.8% of the total population aged 25 and above have no schooling or have not completed primary education). People with low education levels therefore tend to stay in the labour force for many years.

Third, vocational training programmes more concentrate on short-term programmes (in particular for the agricultural sector) rather than long-term ones in industry sectors. Furthermore, the curriculum design of higher education (bachelor's degree) seems to be biased toward only some selected majors. Thus, it seems evident that the TVET system is still far from capable of responding to the demands of the market in providing the human resources necessary for basic sectors of the economy (agriculture, garments, and tourism), or of promoting social development and economic growth.

Fourth, despite notable growth in the modern economic sectors, Cambodia remains primarily an agricultural country. In 2013, agricultural employment amounted to more than 5.2 million workers, representing around two-thirds (64.3%) of total employment. By occupation, 62.9% of the employed were in occupations connected with agriculture, forestry and fishery and 6.0% in elementary occupations. These two major occupations registered a very high percentage of people with low education levels. Although employment growth in the modern sectors was very pronounced in percentage terms during 2008–2013, but was not sufficient to meet the increase in potential labour supply generated by the increase in the working-age population (WAP), which in turn was the consequence of the demographic transition that is affecting Cambodia. In this situation, the agriculture sector acted as a sponge, providing shelter and subsistence to many young people who could not find employment in modern sectors.

Fifth, in the near future, with GDP growth forecast to stay at around 7% for 2012–2018; and increased inflow of FDI in product assembly, agro-processing and tourism-related sectors, Hyeok Jeong (2013) projects that total average employment growth between 2012 and 2015 will be 11.5% per annum. By sector, employment in agriculture and services will grow by 8.2% and 14.1% per annum respectively, while employment in the industry sector will register the highest annual growth rate of 16.1%.

## **Characteristics of the population establishments**

The 528 establishments interviewed translate to an estimate of approximately 3,172 establishments, accounting for 445,007 employees.

The sectorial structure of Cambodia is relatively young, with an average age of 11.2 years, but the number of establishments opening for business has been progressively increasing. The rubber and plastics sector was the youngest sector, with an average age of 7.2 years, while the average age of establishment in other sectors ranged between the maximum age of 15.8 years in logistics and 7.8 years in the garment sector.

The most common type of business was individual proprietor (33.5% of total establishments), followed by private limited companies, 25.1%.

Almost a third of the establishments were foreign-owned, and of those almost half were owned by Chinese and ASEAN entities. The highest proportion of foreign owned establishments was found in the garment sector (50.7%), followed by the finance and insurance sector (47.6%).

The majority of establishments (45.3%) operated in the national market, 36.6% limited their activities to the local market and 18.0% were active in the international market. By sector, more than half of establishments in education, logistics, accommodation, and human health operated their businesses on the local market. At the same time, sectors active in the national market belonged to ICT, finance, food and beverages, construction, and the rubber and plastics sectors. Garment sector is an exported oriented sector, which definitely depended on the international market.

About half of establishments (49.4%) were small sized establishments (10–19 employees), 34.7% were medium sized establishments (20–99 employees), while only 15.9% were large establishments (100+ employees). More than two-thirds of all establishments were concentrated in garments; finance and insurance; accommodation; human health; and food and beverages. However, at the other extreme, the garment sector alone represented 74.5% of total employment.

## **Market development and capacity utilization among the existing workforce**

### ***Market development***

All establishments were more likely to evaluate the demand for goods and services as slightly increased in 2014 compared to 2013, and expected that demand would further expand in 2015. Regarding the size of the establishment, the medium sized establishments seemed to be more optimistic than small and large establishments in 2015.

Finance, human health, education and ICT sectors reported that they had experienced an increase of demand in 2013 and 2014. Also, they expected that demand would continue to increase in 2015.

Rubber and plastic; food and beverages; and the accommodation sectors experiencing high demand in 2013 reported unchanged demand in 2014. However, they estimated that there would be significant expansion of demand in 2015. The garment and logistics sectors were the only two sectors that were pessimistic about future demand in 2015, after they experienced a decrease in demand in 2014 compared to 2013.

### *Capacity utilization among the existing workforce*

The overall establishments indicated that capacity utilization in the existing workforce was about 86.3%. There was no difference between different sizes of establishments. By sectors, the highest level of capacity utilization was found in the finance and insurance sector with a value of 92.3%. The other sectors varied from a minimum value of 81.8% in accommodation to a value of 88.3% in the logistics sector.

## **Employment structure and turnover rate**

### *Employment level and structure in 2013*

The total number of employees in the sampled establishments amounted to 112,642 employees, which translated to an estimated 445,007 employees. Around 85.8% of total employees were concentrated in the large sized establishments, followed by medium sized establishments (9.6%) and small sized establishments (4.6%). The average size of overall establishments was 140 employees.

The majority of employees were in the garment, footwear, and apparel sector, representing 74.5% of total employment. The shares of the other sectors were between 4.6% in the finance and insurance sector and a minimum of 1.1% in the ICT sector.

About 73.1% of the employees were women. However, the percentage varied greatly from one sector to another, from a maximum of 85.4% in the garment, apparel, and footwear sector to a minimum of 13.8% in the logistics, warehousing, and transportation sector.

Analysis by ISCO major occupation shows that the skills level required for jobs was quite low. Craft and related trades workers, accounting for 55.3%, had the largest share, followed by elementary occupations with 12.5%. Plant and machine operators accounted for 2.9% of the total employed. Among occupations requiring at least a high school diploma, technicians accounted for 5.8% of total employed, professionals 8.2%, and managers 4.9%. The proportion of female employed varied greatly in different types of major occupation. Women represented 95.7% of craft and related workers, 66.9% of clerical support workers, 51.5% of elementary occupations, and 48.8% of services and sales workers.

By sector, the more educated segment of the labour force (highly skilled) played a major role in human health, education, ICT, and the finance and insurance sectors. Skilled non-manual was predominant in accommodation, and played a consistent role in the ICT, finance and insurance, and logistics sectors. The garment and construction sectors specialized in skilled manual workers, whilst unskilled labour represented the majority of those employed in the rubber and plastics, and food and beverage sectors.

### *Employment growth*

One noteworthy observation that emerged from the survey was the positive trend in employment growth between 2011 and 2014 with an average growth rate of 7.4% per year. In terms of absolute value, the total employment increased from 367,827 in 2011 to approximately 454,447 in 2014.

In terms of sectors, between 2011 and 2014, the total employment level of ten sectors has increased by a very significant 23.5%. The sector that has reported the biggest percentage increase was the construction sector (40.8%), followed by the finance and insurance sector (38.0%), and the food and beverage sector (32.1%). The garment, footwear and apparel sector, with the largest share of employment, also registered consistent growth of 25.9%. The other sectors, except ICT, have also experienced positive growth; however they have remained below the average, with a range from 8.0% in the rubber and plastics sector to 13.6% in the education sector. The largest contribution to employment growth came from the garment, footwear and apparel sector (78.9%), followed by finance and insurance (7.6%), and food and beverage (3.9%).

Overall, total female employment increased by 23.7% or 63,714 between 2011 and 2014. The share of female employment remained stable at around 73% during the same period.

Between 2012 and August 2014 (the date of interview), total employment across all sectors covered by the survey increased by approximately 48,682 jobs (or a growth rate of 12.2%). The three ISCO major groups experienced above average growth: technical and associated professionals (14.8%), craft and related trades workers (14.3%), and clerical support workers (12.9%). Other ISCO major groups had increased growth rates ranging between 6.0% in skilled agricultural workers and 11.0% in plant and machine operators. During the same period, when we consider the contribution made by each ISCO major group to growth in employment (additional demand), the first ranking was the craft and related trades workers (62.2%), followed by elementary occupations, which accounted for 8.5%. The highly skilled occupations, which are composed of managers, professionals, and technicians, accounted for 17.9% of total additional jobs, whilst skilled non-manual occupations including clerical and support workers, and service and sales workers represented 7.5%. Other skilled manual occupations including skilled agricultural, forestry, and fishery workers; and plant and machine operators, and assemblers contributed only 3.8% during the same period.

The average turnover rate of the ten investigated sectors was quite high, 26.1% on average during 2013 and 2014. At the same time, the highest turnover rate (30.9%) was found in the garment, footwear, and apparel sector, followed by rubber and plastics (23.7%). There were four sectors in which the turnover rate was fairly high: the accommodation sector (18.5%), food and beverage (17.8%), ICT (16.8%), and construction (15.6%). Other sectors reported the turnover rate as quite low and ranged between 7.2% in finance and insurance, and a minimum of 4.5% in the human health sector. Given the high turnover rate, the establishments recruited on average 31.5% of the total employees during 2013 and 2014 in order to replace the employees leaving and to sustain their production or operations. In the same pattern as for turnover, the highest recruitment rate was found in the garment sector with 36.2%, and the lowest recruitment rate was in the human health sector with 6.7%.

In 2015, the establishments estimated that the number of employees left would decrease and on average the turnover rate would drop to 14.8%. The decrease would be found in every sector, particularly in rubber and plastics (2.6% in 2015). This data suggest that the establishments would take action to improve the working conditions and/or provide additional incentives to their employees, although it could also imply that the establishments failed to forecast the turnover rate

of employees. At the same time, the establishments expected to recruit about 17.6% of total employees.

As result, overall employment expects to increase with a growth rate of 6.1% or the creation of about 28,000 additional jobs in 2015. The sectors that will register a double-digit employment growth rate are the rubber and plastics sector with a growth rate of 11.1%, and food and beverage of 10.4%. Given the high capacity utilization among existing staff, the finance and insurance sector will recruit 7.4% additional staff in order to respond to the increase of business activities in 2015. The accommodation sector also reported employment expansion with a growth rate of 6.7%. At the same time, other sectors also reported an increase in employment with a growth rate of between 5.9% in the garment sector and 2.9% in the human health and ICT sectors. In terms of absolute value, garment, footwear, and apparel reported 19,466 additional recruits or 70.4% of total employment generation in 2015. While, other sectors expect to augment employment by between 1,872 [workers] in rubber and plastics and a minimum of 147 [workers] in the ICT sector.

### **Employers' perception of first time jobseekers with at least upper secondary school [education]**

At the time of the survey, about half of all establishments had recruited first time jobseekers coming directly from the education system. About one third had hired higher education graduates, while only 17.8% had hired young people coming from TVET. Upper-secondary school graduates had been hired by one fifth of all establishments (20.9%).

The finance and insurance sector (86.2%) presented the highest percentage of establishments hiring first time jobseekers with at least secondary school education, followed by education sector (70.4%). More than half of establishments in the ICT, construction and accommodation sectors had also hired first time jobseekers. The percentages of other sectors ranged from 41.5 % for human health to the minimum of 17.0% for the garment sector. Notably, the percentages of the three industrial sectors were much lower and quite similar: 25.4% for rubber and plastics, 18.2% for food and beverages, and 17.0% for garment.

In general, establishments recruiting those first time jobseekers expressed positive views of their preparedness for the job. The perception of employers toward the preparedness of first time [employers] was also slightly improved compared to 2012. Only 10.3% of the establishments considered that new entrants from upper secondary school were poorly or very poorly prepared. At the same time, only 7.4% and 6.8% of establishments found that first time jobseekers from TVET and higher education students were poorly or very poorly prepared respectively. Where first time jobseekers were found to be poorly or very poorly prepared for work three areas were most commonly pointed to: lack of life experience and maturity; lack of technical or job specific skills; and poor attitude/lack of motivation.

### **Current recruitment situation**

#### *Incidence and density of vacancies*

More than half of all establishments (51.4%) declared vacancies: 81.9% of establishments in the finance and insurance sector declared vacancies, followed by 78.4% in education and 70.8% in ICT.

In the other sectors, the percentage of establishments declaring vacancies ranged between 60.1% for accommodation and a minimum percentage of 18.3% for logistics, warehousing and transportation. In the garment sector, the main employment generation sector for Cambodian people, particularly female workers in rural areas, only 33.3% of establishments reported having vacancies.

At the time of the survey, the sampled establishments were seeking almost 8,047 workers, a figure that represented almost 7.0% of their total employment: 43.9% for craft and related trades workers, 24.7% for elementary occupations, 8.1% for services and sales workers, and the remaining 23.3% of vacancies were distributed between the other six ISCO major groups.

### *Recruitment difficulties and skills shortages vacancies*

The labour market is more able to meet the recruitment requirements of establishments compared to 2012, however a third of establishments with vacancies faced problems with recruitment, and about a quarter of all vacancies (23.0%) were considered hard to fill in 2014.

The highest percentage of hard-to-fill vacancies was in the ICT sector (74.2%), followed by the food and beverage, and logistics sectors, with values of 35.4% and 31.4% respectively. In the garment, accommodation, and education sectors, the proportion of hard-to-fill vacancies was just above the average. The rubber and plastics, and human health sectors followed with 19.0% and 17.6% respectively, while the finance and construction sectors seemed to enjoy a much better situation, with only 13.4% and 11.6% respectively.

About 44.0% of all hard-to-fill vacancies were concentrated in the craft and related workers. Elementary occupations ranked second at 22.8%. The percentages of other ISCO major groups were all below 9.0%.

Vacancies that were proving hard to fill due to a difficulty in finding applicants with the skills, qualifications, and experience required for the role, equated to 11.8% of all vacancies and were issues reported by above one quarter of establishments with vacancies (28.6%). It was amongst highly skilled occupations, including managers, professionals, and technician and associated professionals, where employers experienced the greatest difficulties in meeting their demand for skills from the available market. Skills shortage vacancies were most common among establishments in the ICT, food and beverage, logistics, human health and education sectors, and were also prevalent (i.e. the highest proportion of all vacancies) in the garment, footwear and apparel sector.

Employers generally reported that most applicants lacked: technical or practical skills, foreign language skills, and basic computer literacy/IT use.

Whilst these recruitment difficulties are not common issues for all establishments, where they do exist their impacts can be significant. Almost two-thirds (63.6%) indicated that these problems caused a delay in the development of new products, almost half reported having difficulties meeting customer services, and above two-fifths of establishments experienced an increased workload for other staff. This data concluded that the problem, at the macro level, could potentially lead to

deterioration in overall competitiveness, in addition to lowering productivity, preventing investment, and developing the skills intensive sector.

An array of measures has been adopted in order to try to fill vacancies. The two most common measures were to: (i) increase the training given to the existing workforce, and (ii) salary (both were cited by two-fifths of establishments with hard-to-fill vacancies).

## **Skills gaps**

Skills gaps are defined when the existing staff cannot perform up to the level required by employers. About a third (32.1%) of the establishments declared that their employees did not perform the jobs at the required level, and this proportion decreased from 54.5% in 2012.

The incidence of this problem appeared to be particularly acute in education, accommodation, and food and beverage, but was also felt by around 36% of establishments in the rubber and plastics, ICT, construction, and garment sectors. For the other sectors, this proportion is quite modest and below the average value, particularly in the human health and finance sectors.

Despite the high incidence of establishments experiencing skills gaps, about 12,205 workers or 2.7% of the total workforce were considered to have skills gaps. Food and beverage and ICT (both 8.0%) were the sectors with the highest proportion of workers described as having skills gaps. The skills gaps were least prevalent in the finance and human health sectors, where only 1.3% and 1.8% of total employment respectively were considered to have skills gaps.

Skills gaps tended to be most concentrated among plant and machine operators, as 4.6% of the total employees in this occupation were perceived to be not fully proficient. Additionally, 3.7% of employees in services and sales, and 2.7% of elementary occupations were considered to have skills gaps. The unskilled and skilled workers (both manual and non manual) were seen as more likely to have skills gaps than the highly skilled occupations that might require higher qualifications, cited as managers, professionals and technicians and associated professionals.

If the data is narrowed to only the establishments and occupations affected by the skills gaps, the proportion of employees with skills gaps in the plant and machine operators was quite high, as 44.9% of employees in this occupation were considered to have skills gaps. The managers ranked second, with 29.5% of employees in this occupation perceived to be not fully proficient. At the same time, only 7.2% of workers in craft and related trades were considered to have skills gaps, while in other occupations, the proportion of employees with skills gaps varied between 24.1% in technical and associated professions and 18.6% in clerical support workers.

Rather surprisingly, the main reason behind poor performance, indicated by establishments in all sectors was lack of motivation. This reason was cited for three-quarters (75.3%) of all occupations with skills gaps. The second reason, cited for 27.3% of skills gaps occupations, was due to the fact that workers were new to the role. This reason could be either because they recently started the job (first time jobseeker) or have recently been promoted to a higher position. Additionally, the three following causes of skills gaps were related to training: not receiving the appropriate training (17.2%), training proving to be ineffective (16.0%), and staff training being only partially completed (12.2%).

Regarding skills that needed to be improved, five skills were cited by more than 20% of the establishments, in the following order: job specific skills, oral communication, teamwork, knowledge of a foreign language, and customer management. The pattern of skills that needs to be improved is similar to skills shortages among jobseekers in the previous session.

As for hard-to-fill vacancies, establishments with skills gaps found that skills gaps prohibit their business developing or growing specifically through: delay in developing new products/services (61.0%), loss of business or orders to competitors (48.8%), having difficulties meeting customer objectives (43.4%), and having difficulties meeting quality standards (29.4%). Additionally, a third believed that skills gaps lead to increase workload for other staff and a quarter found they encountered the problem of an increase in the cost of operation.

Given that most establishments said that the skills gaps were having impacts, it was clear that the vast majority did take specific measures to address these issues, while only 3.5% of establishments with skills gaps did not take any action.

Staff lacking motivation was the key causes of skills gaps, but the data suggested that employers were not willing to provide additional incentives including financial and non-financial aspects to overcome these problems (3.9% of establishments with skills gaps).

Incidentally, the most likely measures to overcome the skills gaps were to implement the mentor/buddying scheme and increase their supervision of staff, which were taken by 42.6% and 41.2% of establishments affected by skills gaps respectively. Additionally, two-fifths increased staff appraisals or reviews, and a third increased training activities or expanded the training programmes.

## **Workforce development and business strategies**

### ***Workforce development***

During the 12 months preceding the survey, a half of establishments (49.8%) had funds or arranged forms of training for their employees; 39.6% of small establishments, 60.5% of medium-sized establishments, and 58.2% of large establishments provided training.

In the finance sector, 88.4% of establishments provided some form of training. In education sector, training was provided by around 78.3% of establishments, in ICT by 64.1%, in human health by 63.8%, and in construction by 52.4%, while in other sectors, the proportion that provided training to employees was below 50% and ranged between 43.7% in the rubber and plastics sector and 22.8% in the logistics sector.

Below half of establishments providing training to their employees had both training plans and budget that specified in advance the level and types of training that would be needed in the coming year. Almost a third (31.6%) had only a training plan and about 2.9% had only a budget for expenditure on training. At the same time, about one-fifth (20.4%) that had provided training in the last 12 months did not have both a training plan and budget, and training clearly quite often took place on an ad hoc basis without being formally planned.



The most common type of training provided by employers were technical and practical skills (40.1% of establishments that trained employees in the last 12 months), which were the most cited skills shortages, followed by customer management skills (36.7%). About a third had funded or arranged strategic management and office management [training] (30.7% and 30.0% respectively). The other types of training, provided by more than 20% of all establishments were: problem solving skills (27.7%); planning and organization (27.1%); accounting and finance (26.9%); human resource management (26.1%); oral communication (25.4%); and teamwork (24.4%).

Around 12.3% of establishments providing training reported difficulties in organizing training courses and/or finding trainers, with the problem especially acute in logistics (44.6%), followed by ICT (43.9%), education (24.5%), human health (17.7%), accommodation (15.2%), garment (12.8%), and other sectors (less than the average value). Regarding the reasons for difficulty in organizing training, 54.3% indicated no or poor information on course/trainer, 50.9% no or lack of courses/trainers, and again 39.9% the low quality of courses/trainers.

### ***Business development strategies***

The last part of the questionnaire aimed to ascertain the willingness of establishments to innovate in product development, services and technologies, and to acquire new markets in the next year. This willingness was stated by 62.1% of all the establishments.

The ICT and education sectors appeared to be the sectors in which there were the highest proportions of establishments reporting the plan to introduce new products, services and technologies and to acquire new market, with 93.2% and 93.0% respectively. The other sectors with the percentage above average were: finance and insurance (88.2%); construction (74.8%); human health (67.8%); and rubber and plastics (65.1%). In other sectors, the proportion differed between 59.0% in accommodation and 31.7% in logistics.

Exploring the policies that establishments intended to adopt in order to expand their business or acquire new market, the survey found that 59.7% of them planned to train their existing staff, 54.1% planned to hire additional staff, and 45.8% planned to reorganize their organization in order to better use available staff and their competencies.

# Abbreviations

ASEAN	Association of Southeast Asian Nations
EMIS	Education Management Information System
ESNS	Employers' Skills Needs Survey
GDP	Gross Domestic Product
ILO	International Labour Organization
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification
MOEYS	Ministry of Education, Youth, and Sport
MOLVT	Ministry of Labour and Vocational Training
NEA	National Employment Agency
NEP	National Employment Policy
NIS	National Institute of Statistics
NSDP	National Strategic Development Plan
NTB	National Training Board
SIDA	Swedish International Development Cooperation Agency
TAP	Training Age Population
TVET	Technical and Vocational Education and Training
UNDP	United Nations Development Programme
WAP	Working Age Population

# 1. Introduction

## 1.1. Rationale and Objectives of the Study

Workforce skills development plays an important role in the quality of a nation's performance in terms of economic development, poverty reduction, and job creation. Investment in labour force skills development not only contributes to higher productivity and enhanced competitiveness but also provides employment and more inclusive growth (World Bank, 2012). Given the important roles played by workforce skills development, the Royal Government of Cambodia seeks to promote skills development through the Rectangular Strategy Phase III 2014–2018, and its implementation plan, the National Strategic Development Plan (NSDP) 2014–2018 in order to better prepare a labour force that responded not only to the industrial process, but also to fully exploit the benefits from the free flow of labour in the ASEAN Economic Community in 2015.

Cambodia experienced rapid and accelerated growth (9.5% for the 1998–2008 period) but observed a sudden stop of such growth during the global financial crisis of 2008 (0.1% in 2009) due to the related stagnation of world demand for Cambodian garment exports, which has been one of the major driving engines of the previous rapid growth. Although the country has recovered rapidly from this crisis (7.1% for the 2010–2012 period), the experience has reminded the policy makers to reconsider current growth engines and the need to diversify the structure of the economy in order to sustain medium- and long-term growth, and poverty reduction. This reinforces the need for sustainable and stable growth, which requires a sound skills development policy and national employment policy in order to ensure the robust supply of relevant skills (meeting demand).

However, the lack of up to date and comprehensive labour market information is a key constraint in the development of those policies. In this regard, the National Employment Agency (NEA) of the National Training Board (NTB) carried out the first Employers' Skills Needs Survey (ESNS) in 2012 with financial and technical support from the International Labour Organization (ILO). This survey focused on skills issues in six major sectors (high growth or large share of employment). The six sectors investigated comprised three manufacturing sectors (food and beverage; garment, apparel and footwear; and rubber and plastic); construction; and two service sectors (finance and insurance, and accommodation). The findings are also useful in evaluating the effectiveness of the education system in terms of how successful school graduates were in entering the labour market from the education system. In addition to this, a clear understanding is required regarding the knowledge and skills needed among employers in the labour market in order for the education system to ensure that participants acquire relevant skills. Hence, this information is very vital to determine the direction of skills development policy, specifically the TVET system and whether any reforms are necessary.

In an effort to support the government to develop a more effective TVET system and policies, NEA, in cooperation with the Swedish International Development Cooperation Agency (SIDA), conducted a second study of ESNS in 2014. This study was aimed at the collection of more detailed information in various aspects of employment and skills such as employers' perceptions of first time job seekers, employment structure, skills gaps, hard-to-fill vacancies, skills shortages, training issues, and so on. More importantly, this survey was designed to collect data in order to build an occupational barometer, which is one of the most important labour market indicators as well as crucial information for career counselling.

This survey was also designed to get an understanding of employers' perceptions in order to tackle labour market problems from the perspective of the demand side. Hence, in order to be able to explain the nature of Cambodia's labour market from the demand side, more than 500 establishments were interviewed at the national level across 10 sectors, which have high growth potential, are major drivers of employment generation, and as well as having greater value in Cambodia's GDP. The sectors investigated include 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).

The main objectives of this survey are to contribute towards an effective employment and skills development policy by providing the necessary information required to:

- Analyse the current Cambodian labour market situation
- Explore employers' perceptions of first time job seekers
- Determine the employment structure in terms of stock and flow
- Assess the skills shortages and skills gaps by ISCO major occupations in each selected sector
- Build a short term occupational barometer
- Contribute to skills development programmes coherent with the future labour demand by ISCO major group
- Allow designing and implementing of the employment and labour policies needed by the Cambodian economy
- Develop the labour market information system in Cambodia.

## **1.2. Structure of the Report**

In order to provide structural and concise information, this report is organized into five parts. This introductory section presents the background and rationale of the study. Part 2 provides an overview of the concept of the ESNS information base, the key terminologies, the sampling methodology, the design of the questionnaire and the limitations of the study. Part 3 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. Part 4 focuses on the main findings of the employers' skills needs survey: (i) characteristics of establishment, (ii) market development and capacity utilization within the existing workforce, (iii) employment structure and turnover, (iv) employers' perceptions of first time jobseekers with at least upper secondary education, (v) current situation of recruitment and skills shortages, (vi) skills gaps, and (vii) workforce training, and business strategies. In the last section, by using the findings from this study, we try to seek and suggest policy recommendations for the skills mismatch and skills formation problems in Cambodia from the short-term mismatch perspectives as well as from the long-term development perspectives.

## 2. Research Methodology

### 2.1. 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 of skills shortages and skills gaps. 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 A – 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).

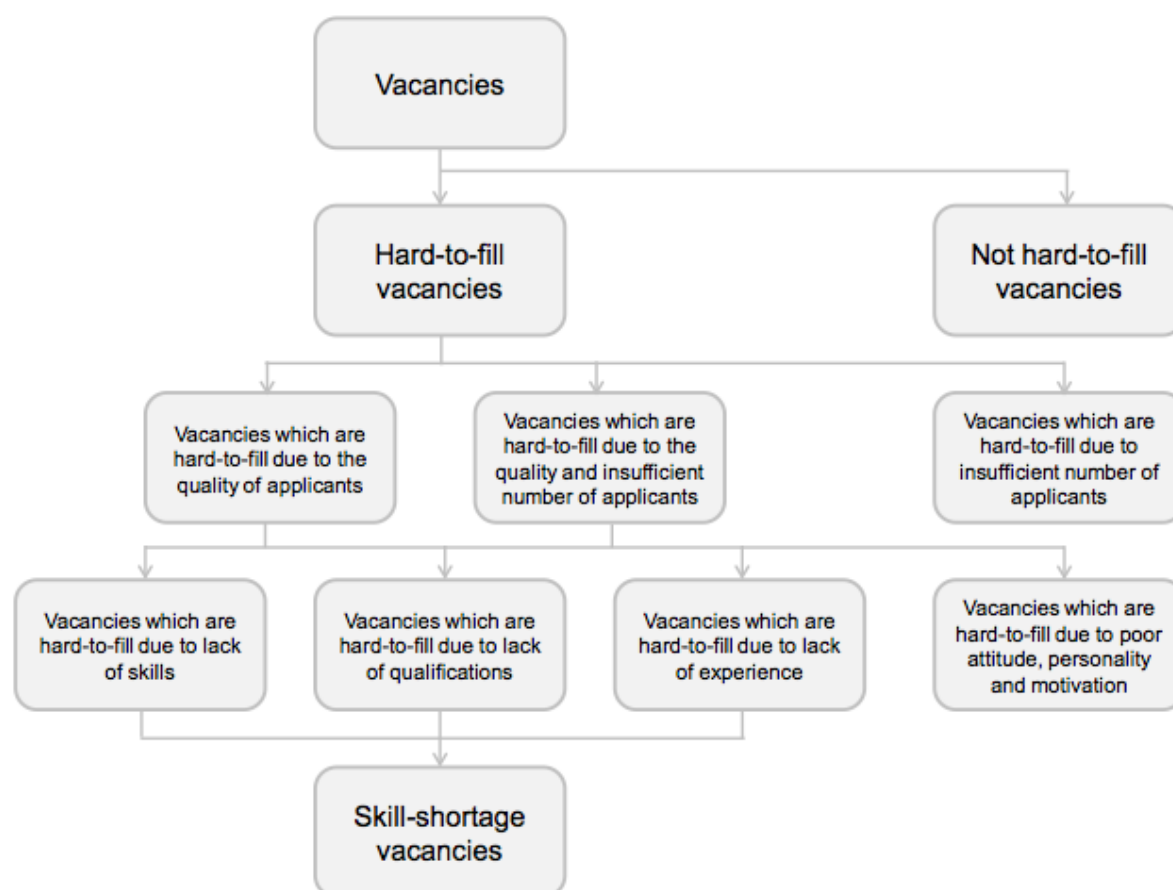
From a microeconomic perspective, skills shortages are generated from “excess demand” and the inability of employers to switch their demand composition or to substitute production factors (e.g. sourcing labour from different locations or sectors) in the short term due to asymmetric information on applicants’ 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 2-1. 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)<sup>1</sup>.

**Figure 2-1 Skills-shortage vacancies “route map”**



Source: (UKCES, 2012, p. 48)

## 2.2. Sampling

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 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.<sup>2</sup> In the sampling design process, the sample was divided into a number of cells defined by the size of the employment and economic activities (*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

<sup>1</sup> 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 D: Employers' Skills Needs Survey Questionnaires 2014).

<sup>2</sup> This sampling methodology is strongly recommended for Employer Survey (CEDEFOP, 2013).

establishments in most sectors.<sup>3</sup> 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+), as shown in table 2-1.

The study expanded on the previous study in 2012 from six to ten sectors which have high growth potential and are major drivers of employment generation, and whose VA shares are important in Cambodian GDP in order to be able to explain the dynamic 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 B: International Standard of Industrial Classification*).

The samples were first drawn from the Establishment Census 2011 conducted by the National Institute of Statistics (NIS), with some additional establishments updated from the *Yellow Pages 2013* and administrative records of the Ministry of Labour and Vocational Training (MoLVT) in order to complete the sample frame (table 2-1).

**Table 2-1 Sample distribution by sector and size of employment**

	10–19 workers	20–99 workers	100+ workers	Total
Accommodation	34	42	27	103
Construction	37	44	14	95
Education	11	27	26	64
Finance and Insurance	16	76	20	112
Food and Beverages	42	37	17	96
Garments, Footwear, and Apparel	22	25	74	121
Human Health	9	25	20	54
ICT	1	9	13	23
Logistics, Warehousing and Transportation	2	14	11	27
Rubber and Plastics	15	39	17	71
Total	189	338	239	766

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.

Moreover, to ensure comparability with the previous study and other studies conducted in other countries, the International Standard Industrial Classification (*see appendix B*) and the International Standard Classification of Occupations (*see appendix A*) were used to identify the subsectors and occupation types relevant for the analysis.

<sup>3</sup> According to Cambodian Economic Census 2011, the establishments employing 10-19 people covered 63.0% of total establishments employing more than or equal 10, while the establishments with 20-99 people and the establishments with more than or equal 100 represented 32.1% and 4.9%, respectively.

## 2.3. 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 of employers due to a lengthy questionnaire.

The design of the questionnaire followed the United Kingdom Commission Employer Skills Survey questionnaire. It was used in the previous ESNS in 2012 and adapted 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 parts, with a total of 46 questions, covering the following areas (see *Appendix D*):

- (a) *General information of the establishment (questions A1–A8)*. 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–C3)*. In this section, each establishment was asked to report and estimate the total number of workers from 2011 to 2015. 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 from 2013 to 2015 in order to determine the staff turnover rate. Importantly, this section aimed also to outline the evolution of the employment level by ISCO major group from 2012 to the present.
- (d) *Employers' perceptions of the first time job seekers (questions D1–D5)*. In this section, the questions aimed to evaluate how many establishments have recruited first time job seekers



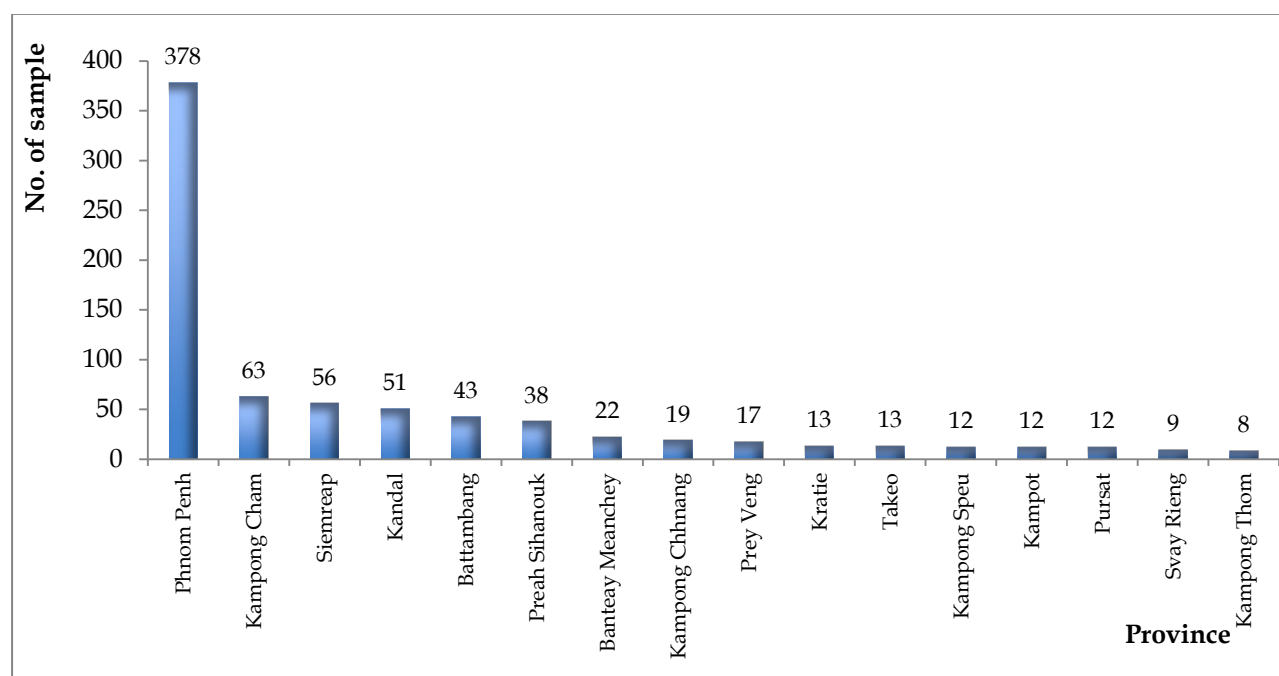
who were coming from: 1) upper secondary schools; 2) technical and vocational schools (TVET); or 3) university or other higher education institutions. It tried, moreover, to evaluate the level of preparation of the newly hired and the weak areas in their preparation.

- (e) *Skills gaps and workforce training (questions E1–E11)*. 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 programmes provided by the company. The first question aimed to find out if the staff of the establishments did take part in any training programmes, 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–F4)*. 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 on the Cambodian labour market, and
  - The wage offered by establishment in each occupation,
  - 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) *Business strategy (questions F1–F2)*. 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.

## 2.4. 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 4<sup>th</sup> and 22<sup>rd</sup> of August 2014 across 15 provinces and Phnom Penh capital (figure 2-2). The average length of the interview was around 30 minutes.

**Figure 2-2 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 68.9%, calculated as "the number of achieved interviews" as a proportion of "the total sample". The response rate slightly improved compared to the previous survey in 2012, to 67.8%. A detailed breakdown of survey outcomes is shown in Table 2-2 and Table 2-3:

**Table 2-2 Response rate**

	Absolute value	Percentage
Total sample	766	100.0
Achieved interviews	528	68.9
Respondent refusal	101	13.2
Unobtainable/Invalid contact number	78	10.2
Bankrupt	24	3.1
Employed less than 10	13	1.7
Not available during fieldwork	10	1.3
Other reasons	12	1.6

Response rates were seen by sector as follows:

**Table 2-3 Response rate by sector**

<b>Sector</b>	<b>Interviews</b>	<b>Response rate</b>
Accommodation	78	75.7
Construction	58	61.1
Education	48	75.0
Finance and Insurance	98	87.5
Food and Beverage	68	70.8
Garments, Footwear, and Apparel	69	57.0
Human Health	39	72.2
ICT	9	39.1
Logistics, Warehousing and Transportation	14	51.9
Rubber and Plastics	47	66.2

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.

## **2.5. 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 corrected, 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.

## **2.6. 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.

## **2.7. Problems Countered and Solutions Adopted**

Even though this survey is the second large-scale skills survey conducted by NEA, there was no doubt that the lack of experience 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 learn 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 than initially estimated for the fieldwork (10.2% of total samples could not be interviewed due to invalid contact numbers).

The third difficulty is regarding the questionnaire's design due to the lack of previous information or guides to help in designing an appropriate questionnaire. Hence it is difficult 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.

Moreover, the lack of clear working definitions of key terms, e.g. skills, skills shortages, skills gaps, etc. resulted in difficulties in designing questionnaire and measurement.

Last but not least, occupation (ISCO), industry (ISIC), and education classification standards (ISCED) are not widely used and understood, particularly among employers.

### 3. Current Situation of Cambodian Labour Market

Before starting to analyse the results of the survey, it seems relevant to briefly summarize some basic information about Cambodia's macro economy and demographic trends as well as the most relevant elements of labour demand and supply. The objective is to provide the background information necessary to better interpret the results of the survey and then outlines policy measures.

#### 3.1. Cambodian Macro Economic Overview

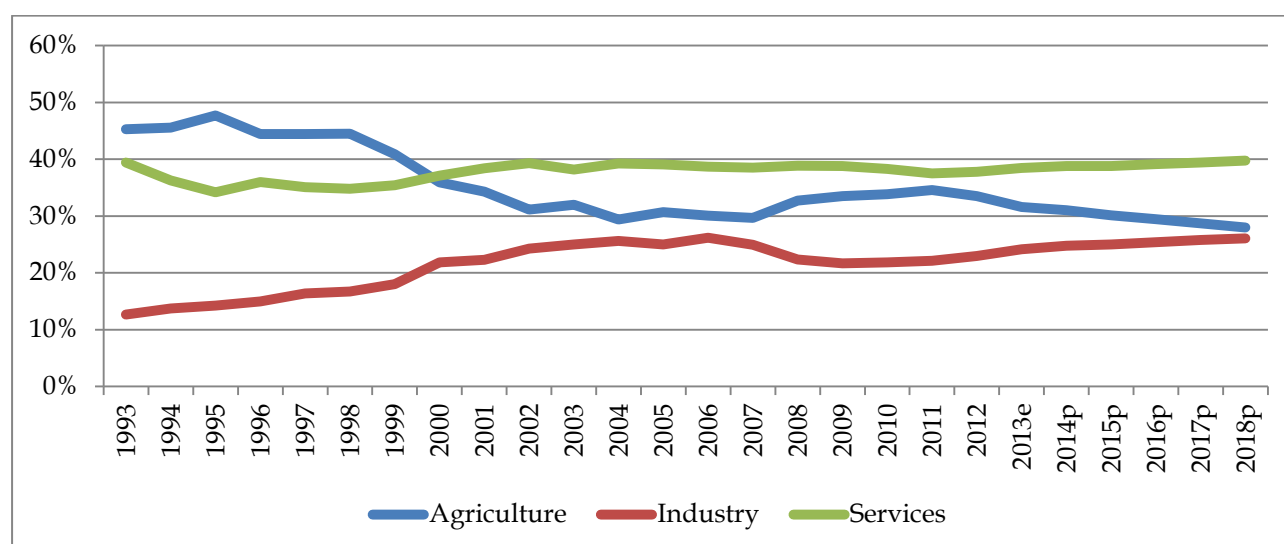
After regaining peace and stability nationwide in 1998, the Cambodian economy began to pick up and grew at a remarkably high rate driven mainly by an export led and opened trade policy. For the 1998–2008 periods before the global economic crisis, Cambodia's GDP grew at an average annual rate of 9.5%. During this period, the industry sector registered the highest growth with an average annual rate of 15.3%, and was followed by the service sector of 10.4% and the agriculture sector of only 4.5%, as shown in table 3-1. This contributed to the doubling of GDP per capita during the same period, bringing the country close to the rank of lower middle income. The poverty rate has decreased dramatically from 47.8% in 2007 to 19.8% in 2011. The growth has resulted in a reduction in the poverty rate of an average of about 7 percentage points per year.

**Table 3-1 Cambodian GDP growth rate and forecast; 1993-2018**

Sector	1993–2012	1993–1998	1998–2008	2008–2009	2009–2013	2013–2018
Agriculture	4.5%	5.0%	4.5%	5.4%	3.3%	4.0%
Industry	12.7%	12.1%	15.3%	-9.5%	12.1%	8.4%
Services	7.8%	5.2%	10.4%	2.3%	6.3%	7.3%
Total GDP	7.7%	6.3%	9.5%	0.1%	7.0%	7.0%

*Source: Ministry of Economic and Finance, 2014*

**Figure 3-1 Cambodian GDP share by sector; 1993–2018**



*Source: Ministry of Economic and Finance, 2014*

With this expansion, transformation of the structure of the economy has also taken place, as

witnessed by the increase of the share of industrial output from 13% in 1993 to 23% in 2012, while the share of agriculture output declined from 45% to 33.5%, and that of service output remained relatively stable at around 38% during the same period, as shown in figure 3-1.

However, the base of Cambodia is still concentrated in a few sectors, that is, crops, garments, construction, and tourism. This small-based growth is vulnerable to external shock as became evident during the global financial crisis in 2008, and has posed a threat for the country to further industrialize and successfully move up into middle-income status. Although the country recovered rapidly from this shock, registering a growth rate of 6% in 2010 and 7.1% in 2011, the experience has reminded policy makers to reconsider the current growth engines and needs to diversify the structure.

In this context, Cambodia needs to embark on a faster paced industrialization process by diversification into higher value added and more labour intensive sectors, as well as improving the productivity and competitiveness of the existing industries. To achieve this, strategies and policies for the country's economic and industrial development and transition for the medium and long term need to be devised. In their support for the success of these policies and strategies, skills development will play a vital role.

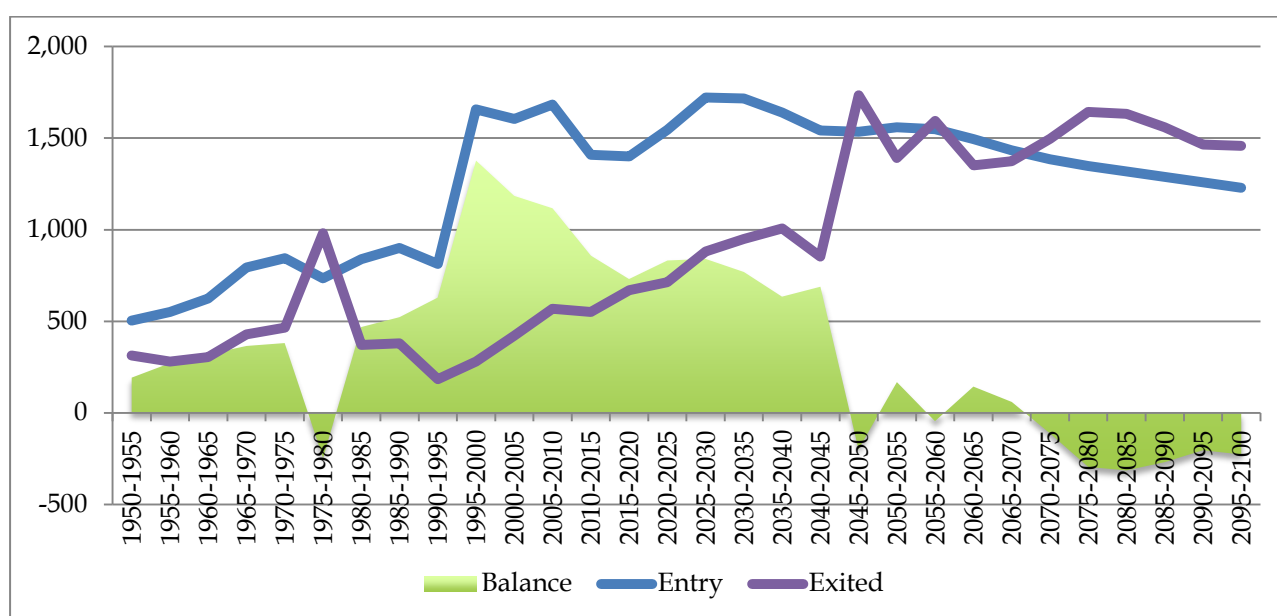
## **3.2. Labour Supply**

### **3.2.1. Demographic Trend**

Cambodia is now in the “demographic transition” phase from being a high fertility–mortality rate [country] to a low fertility–mortality one. After the war, the country experienced a baby boom in the 1980s and 1990s, which has registered an annual increase of the number of new births from about 401,000 in 1980–1985 to 417,000 in 1990–1995. As a result, the total population has increased from about 6.7 million in 1980 to an estimated 15.7 million in 2015. Because of the significant increase in the population during the last three decades, Cambodia has faced two notable challenges: the employment challenge due to the expansion the working age population (WAP), aged 15–64, and the education challenge due to the extraordinary increase in training age population (TAP), aged 6–23.

The country's WAP increased from about 4 million in 1980 to an estimated 10 million in 2015. However, the annual increase in WAP had already passed its peak of about 275,000 in 1995–2000 (Figure 3-2). Its annual growth rate has declined steadily from 5.1% in 1995–2000 to 1.5% in 2010–2015. With the continuing decline in both population generational entries and balances, Cambodia WAP is projected to stop increasing in the next 30 years, and start decreasing in the next 60 years (figure 3-2).

**Figure 3-2 Generational entries and exits due to death and ageing, and generational balance of Cambodia's working age population (in '000); 1950–2010**



Source: United Nations Population Division, *World Population Prospects: The 2012 Revision*.

Starting in 1979, the training age population (aged from 6 to 23) had more than doubled from 1980 to 2005 when it reached a maximum level at 6 million cohorts of aged from 6 to 23. At present the potential demand for both compulsory and post-compulsory education has slightly decreased to an estimation of 5,400,000 in 2015, a trend that is forecast to continue. Therefore Cambodia's education and vocational training system had not only to face an initial situation characterized by an almost total lack of infrastructure and teachers due to the genocidal regime (1975–1979),<sup>4</sup> and also an increase in the potential demand for education. After 1979, it was a great challenge for the new Cambodian government to rebuild the national education system. The first efforts were obviously directed towards the provision of pre-schools, primary schools and non-formal education.

**Table 3-2 Cambodia Training Age Population by Age Group in '000, 1980-2010**

	1980	1985	1990	1995	2000	2005	2010	2015
Primary (6-11)	1,156	1,008	1,496	2,038	2,113	1,934	1,759	1,871
Lower Secondary (12-14)	511	577	428	836	1,045	1,098	923	888
Upper Secondary (15-17)	455	521	535	515	1,078	963	1,037	834
Higher education (18-23)	792	883	1,019	1,031	1,198	2,009	1,668	1,839
Total (6-23)	2,915	2,988	3,478	4,421	5,433	6,004	5,388	5,433

Source: United Nations Population Division, *World Population Prospects: The 2012 Revision*.

<sup>4</sup> During the Khmer Rouge period, the Cambodian education system was systematically abolished: publishing houses were closed, teaching materials and textbooks destroyed, the buildings of schools and universities were put to other uses. Large numbers of qualified teachers, researchers and technicians either fled the country or died (Michele et al., forthcoming).

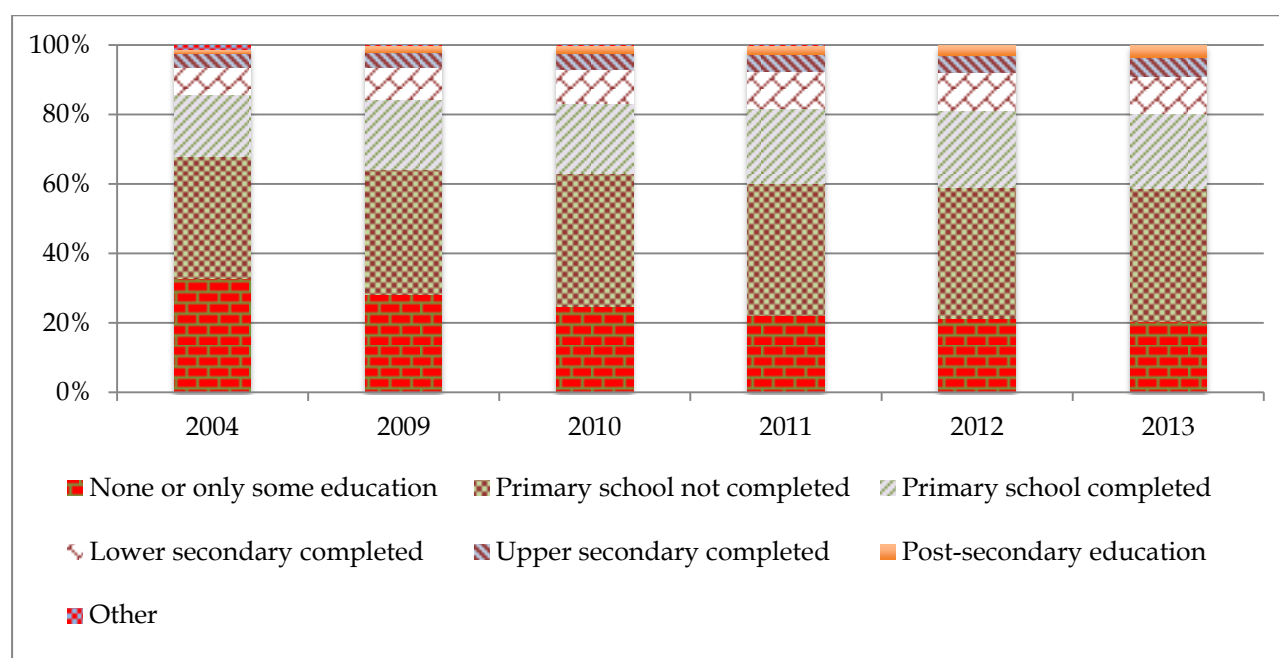
## 3.2.2. Education and Skills Attainment

### 3.2.2.1. General Education Attainment

In spite of the notable development registered over the last 30 years, the education system in Cambodia is still affected by significant structural problems, especially in rural areas. Infrastructures are still lacking, and in many cases their quality is extremely poor; classes are overcrowded, and the educational level of many teachers is still insufficient. Therefore, although endowed with a labour surplus, Cambodia's labour force is still characterized by low-education and low-skill levels. According to the CSES 2013, 58.8% of the population aged 25 and above have no schooling or have not completed primary education, while only 8.9% have an upper secondary diploma or higher qualification. The gender differential was quite high. In 2013, 68.6% of women had no schooling or had not completed primary education versus 47.2% of men, and only 5.1% of women had at least an upper secondary diploma versus 13.4% of men (CSES, 2013).

Between 2004 and 2013, the situation improved substantially, as shown in figure 3-3, but it is evident that a lot remains to be done to obtain a more productive labour force.

**Figure 3-3 Education attainment of Cambodia's population aged 25 and above**

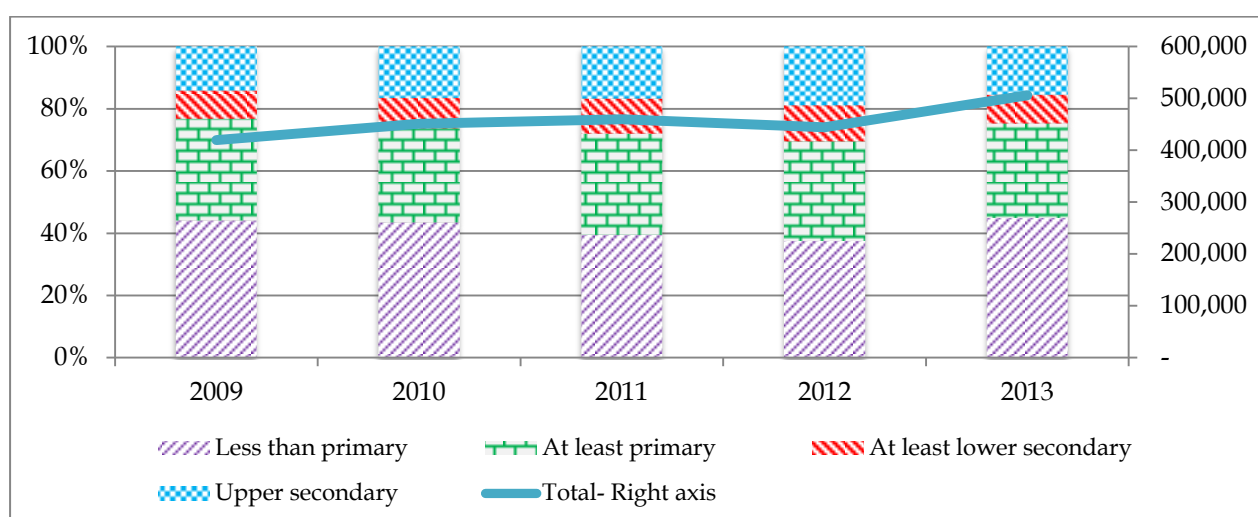


Source: National Institute of Statistics, Cambodia Social Economic Survey 2013.

This pattern has been corroborated by data from the Ministry of Education, Youth and Sport in school year 2012–2013, which showed that 75.2% of students exiting or dropping out of the general education system with at most primary education, and only 15.5% with upper secondary diploma (Figure 3-4).



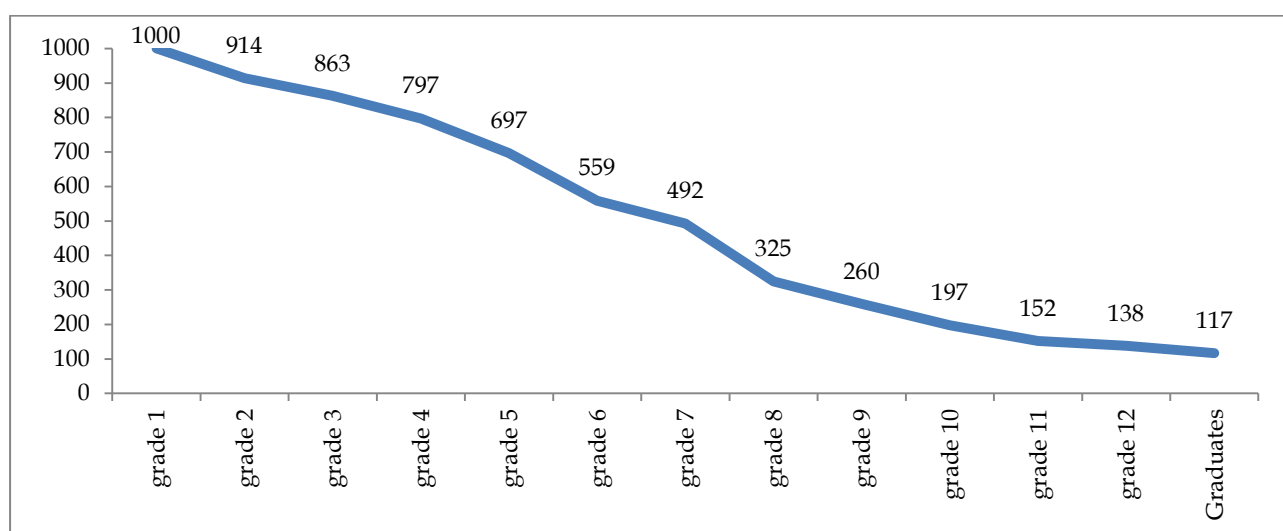
**Figure 3-4 Total number of student exits from general education and share by educational level, 2009–2013**



Source: Ministry of Education, Youth and Sports, EMIS, 2009/2010 to 2013/14

In spite of substantial improvements in enrolment, the survival rate at primary level and secondary level are still a major problem. Among 1,000 students enrolled in primary school, 26.0% graduated with lower secondary diploma, or only 11.7% of students with upper secondary diploma in the 2012–2013 school years (Figure 3-5). This data implies that if the drop out rate could be reduced or the schools could keep more children in school for a longer time, or still better, if most or all of the children entering school at a given level were to remain until they completed the prescribed course at that level, the immediate effect would be to increase the total school enrolment.

**Figure 3-5 Cohort survival rates of students by grades based on the 2012–2013 school year**



**Note:**

- The survival rate is based on the performance of the education system during the 2012–2013 school year and allows for four years repetition.

Source: Ministry of Education, Youth and Sports, EMIS 2013/14.

Consequently, the majority of Cambodia's labour force has only primary education, as shown in figure 3-3 above. Given the extremely high employment rate, the educational attainment of the employed does not notably differ from that of the corresponding population.

### 3.2.2.2. University Education

For tertiary level, the number of students enrolled as well as the number of graduates registered a very impressive increase between the 2005–2006 academic year and 2011–2012. Total enrolment increased from around 95,000 to more than 245,000, where the percentage of women has reached 38.3% of total enrolments.

By degree level, almost 85% of students have enrolled in the bachelor programme, while the share of enrolments in the associate programme has gradually declined. Because one student can enrol in two or more programmes in the same year, or re-enrol in year one after completing one bachelor degree, the actual number of students admitted, enrolled and graduated can be estimated to be between two-thirds and three-quarters lower than the registered number of admissions, enrolments and graduations.

In terms of flow, for the bachelor programme, first year enrolments have increased from less than 14,000 to more than 56,000. Similarly, due to more than one enrolment at the same time by students and the current transition rate from high school to university of about 76%, it can be estimated that at present the number of student entries into university is between 40,000 and 50,000.

**Table 3-3 Number of university enrolment by sex and degree level, 2005–2006 to 2011–2012**

		2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12
Number of Enrolments	Male	64,689	78,955	91,041	107,843	122,703	138,427	151,379
	Female	30,019	38,465	46,449	60,160	72,463	83,719	93,950
	Both Sexes	94,708	117,420	137,490	168,003	195,166	222,146	245,329
Associate	Male	17.7	14.2	11.6	11.1	11.1	10.6	10.1
	Female	14.7	11.9	9.3	8.4	8.8	8.8	8.4
	Both Sexes	16.8	13.5	10.8	10.1	10.3	9.9	9.4
Bachelor	Male	78.5	75.8	76.8	78.3	79.8	81.0	82.1
	Female	83.9	84.5	86.6	87.8	87.9	88.2	88.8
	Both Sexes	80.2	78.6	80.1	81.7	82.8	83.7	84.7
Master	Male	3.4	9.5	10.8	9.8	8.4	7.8	7.3
	Female	1.3	3.6	4.0	3.8	3.2	3.0	2.7
	Both Sexes	2.7	7.5	8.5	7.6	6.5	6.0	5.5
Ph.D.	Male	0.4	0.5	0.9	0.8	0.8	0.7	0.6
	Female	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Both Sexes	0.3	0.4	0.6	0.6	0.5	0.4	0.4

*Source: Ministry of Education, Youth and Sport, General Department of Higher Education 2013*

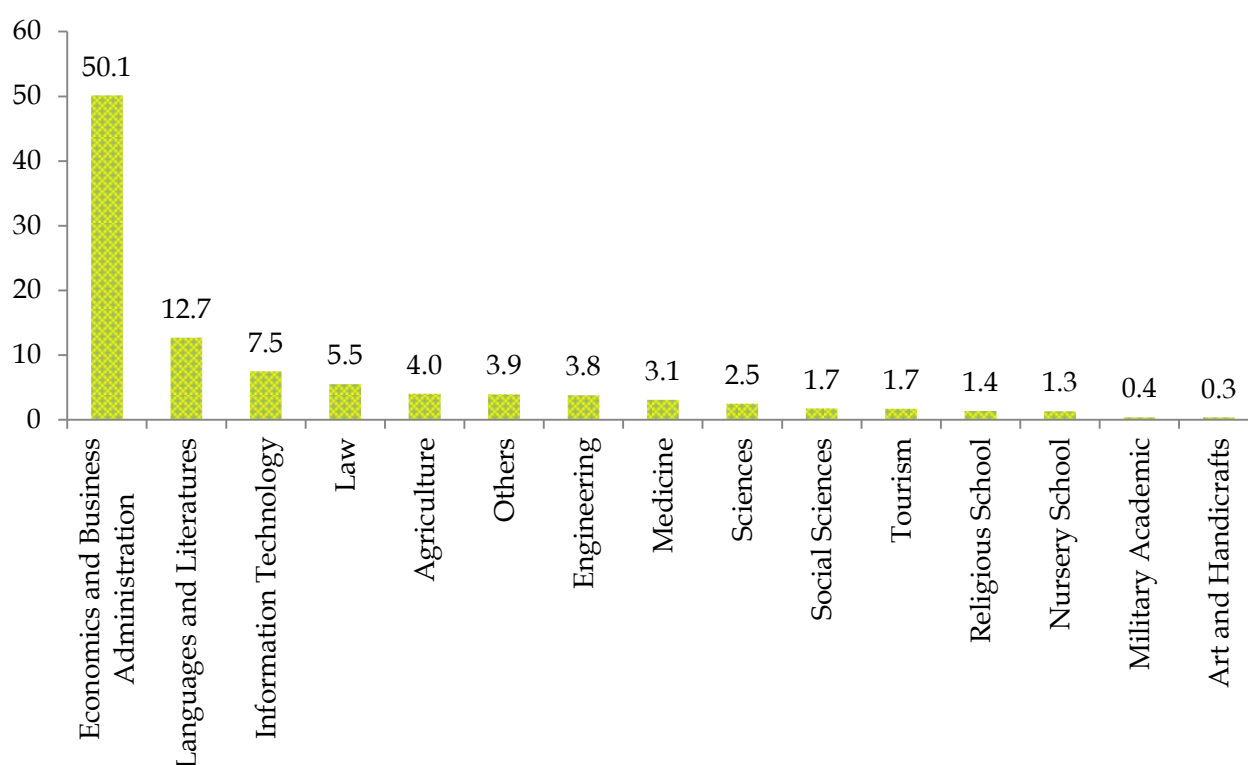
Consistent with the rise in university enrolments, in the last five years university graduations at associate or bachelor degree level have tripled. In the academic year 2010–2011, 70.5% and 26.9 %

of total 45,650 graduates earned bachelor's degrees and associate degrees respectively; while graduates with master degree and above accounted for only 2.6%.

For the same reasons, it can be estimated that the number of bachelor and associate degree graduates in the academic year 2010–2011 is between 21,500 to 24,000; and 8,000 to 9,000 respectively. In total, at present 29,500 to 33,000 university graduates enter the labour market every year, of whom 11,500 to 13,000 are females.

A very negative element in Cambodian higher education is the concentration of students in a very limited number of major subjects, with economics, business administration, accounting, and law accounting for more than 50% of total enrolments. However, majors that play important roles in the country's economic and industrial development have not attracted great interest from students. The enrolment share of agriculture, engineering, medicine, and science majors, and tourism in total enrolments stood at only 4%, 3.8%, 3.1%, 2.5%, and 1.7% respectively.

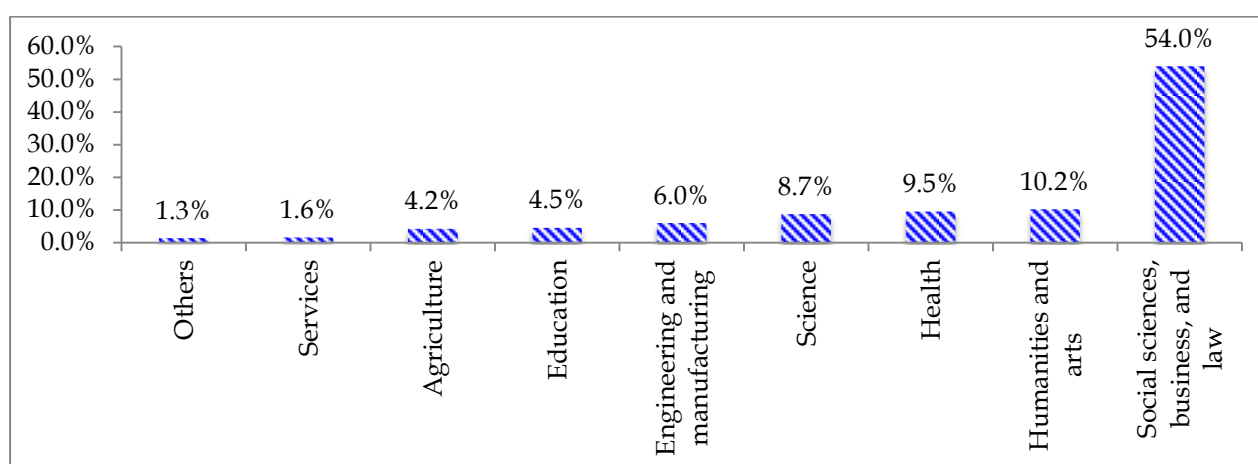
**Figure 3-6 Share of bachelor degree enrolments by major, 2010–2011 (%)**



*Source: Ministry of Education, Youth and Sport, General Department of Higher Education 2012*

According to the Cambodian inter census survey 2013, the data reconfirmed that out of the 440,000 people who have completed above associate degrees or technical certificates about 54.0% studied social sciences, business, and law, and 10.2% studied humanities and arts. Crucially, a limited number of people studied sciences (8.7%), engineering and manufacturing (6.0%), and agriculture (4.2%).

**Figure 3-7 Distribution of persons under each main subject of study by completed level of education (Associate degree and above), 2013**



Source: National Institute of Statistics, Cambodia Inter-Censal Population Survey 2013

### 3.2.2.3. Technical and Vocational Education and Training (TVET)

Given the population's low level of educational attainment, TVET plays a crucial role in equipping and upgrading the skills of Cambodia's labour force to fill the growing domestic and regional labour demand for low and moderately skilled workers. To raise the country's productivity it is also necessary to relieve the domestic wage structure and to become more competitive in attracting more labour intensive investors in high value-added manufacturing who plan to re-locate from countries in the region that face growing wage pressure and labour shortages. Most importantly, TVET is instrumental in providing effective support to the industrialization and economic diversification process to facilitate catch-up with neighbouring countries.

In Cambodia, TVET is provided by the government, private sector and non-governmental organizations (NGOs). The courses are organized into three types: short-term courses offered both by public and private institutions; long-term courses, after completion of which trainees will acquire a certificate (I, II, and III); and higher education courses offered by public institutions.

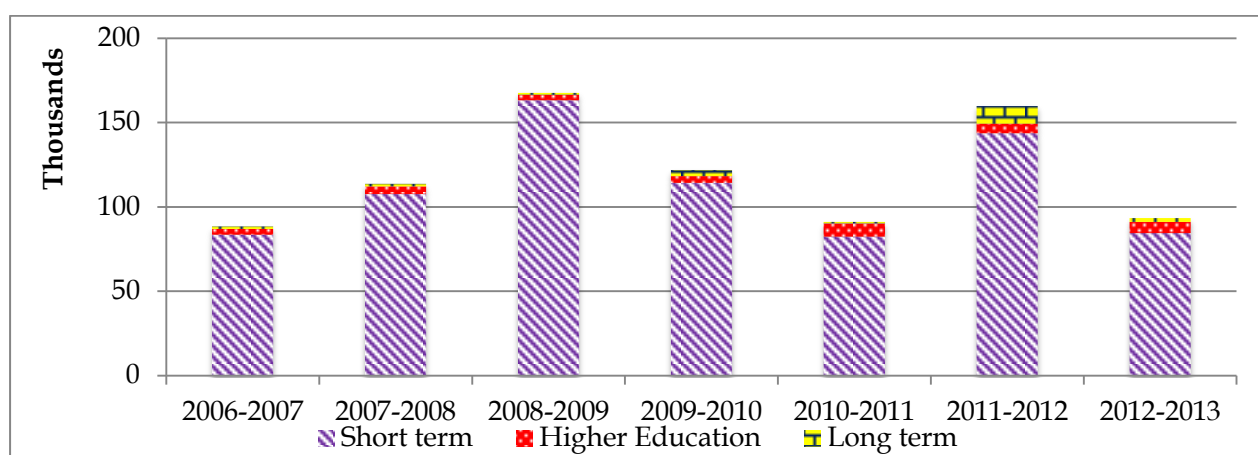
According to the figures provided by the Department of Technical Vocational Education and Training Management of MoLVT, the total number of trainees has progressively increased from the academic year 2006–2007 to 2008–2009 (when it reached a maximum of around 168,630), then progressively declined to 93,220 in 2012–2013, as shown in figure 3-8.

However, the number of trainees involved in long-term and higher education courses constitute only a small fraction of total enrolments. Overall, enrolments in short-term courses represent more than 95% of total enrolments, among which enrolments in short courses offered by NGOs and private training centres account for almost 50%.

Due to the lack of data, it is difficult to make comparisons about changes in enrolments by field of training across the whole country over time. However, from the available data on students graduating from short course training offered by public institutions in 2008, more than 74% of trainees completed courses with an average duration of more than one month in agricultural skills

(Table 3-4). Graduation from courses in technical trades, textiles and garments, computing, and tourism and hospitality constituted only 3.3%, 1.3%, 1.4% and 1.9% respectively.

**Figure 3-8 Number of TVET enrolments by level, 2006–2013**



Source: Ministry of Labor and Vocational Training, 2013

**Table 3-4 Students Completing Short-term Courses from Public Institutions by Training Field, Average Duration and Person Months, 2008**

Field of Training	Completed Students	Person months	Average duration (month)	Completed Students	Person months
	Absolute values			%	
Agriculture	39,579	16,276	0.4	74.5	46.7
Technical trades	1,757	5,141	2.9	3.3	14.7
Textile and garments	689	3,166	4.6	1.3	9.1
Handicrafts and jewellery	74	324	4.4	0.1	0.9
Hairdressing and beautician	386	1,670	4.3	0.7	4.8
Computing	732	3,001	4.1	1.4	8.6
Tourism and hospitality	1,008	327	0.3	1.9	0.9
Business and management	32	128	4.0	0.1	0.4
Languages	143	486	3.4	0.3	1.4
Art and Design	22	88	4.0	0.0	0.3
Miscellaneous	8,714	4,262	0.5	16.4	12.2
Total	53,136	34,869	0.7	100.0	100.0

Source: Ministry of Labor and Vocational Training, 2012

The vocational training programmes are too concentrated on short-term programmes (in particular for the agriculture sector) rather than long-term ones in industry sectors. Furthermore, the curriculum design of higher education (bachelor's degree) seems to be biased towards only some selected majors. Thus, it seems evident that the TVET system is still far from capable of responding to the demands of the market in providing the human resources necessary for the basic sectors of the economy (agriculture, garments, and tourism), or of promoting social development and economic growth.

### 3.3. Labour Demand

Despite notable growth in the modern economic sectors, Cambodia remains primarily an agricultural country, as shown in table 3-5. In 2013, agricultural employment amounted to more than 5,200,000 workers, representing around two-thirds (64.3%) of total employment. By occupation, 62.9% of the employed were in occupations connected with agriculture, forestry and fishery and 6.0% in elementary occupations. These two major occupations registered a very high percentage of people with low education levels. The amount of people employed in highly skilled occupations including managers, professional, and technical and associated professionals (that would require intermediate and higher education) together still represent around 4.9% of total employment (Table C-1 in Appendix C).

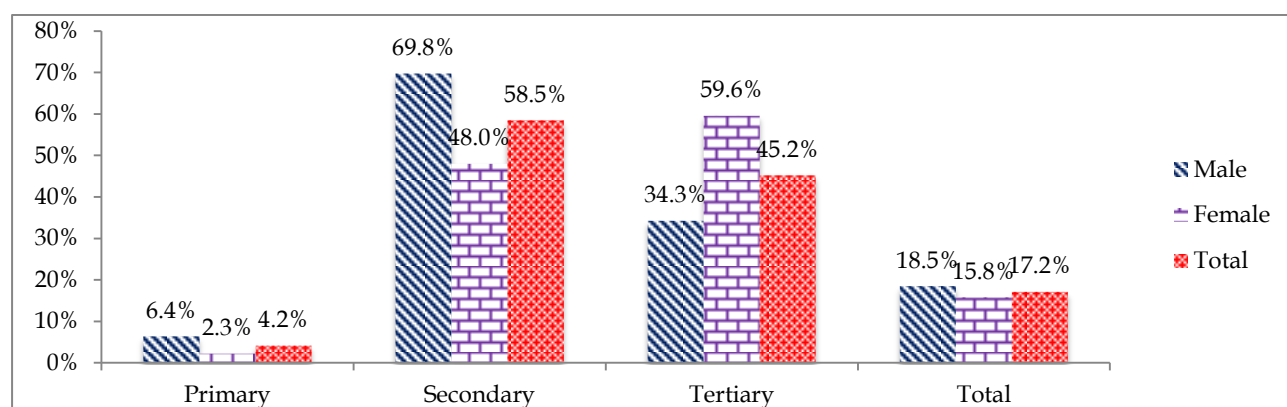
**Table 3-5 Share of total employment (15+) by sector and sex in 2008 and 2013**

	Male		Female		Total		Male	Female	Total
	2008	2013	2008	2013	2008	2013	Change from 2008 to 2013		
Absolute value (in thousands)									
Primary	2,354	2,505	2,660	2,721	5,014	5,225	151	60	211
Secondary	275	466	319	472	589	934	192	153	345
Tertiary	767	1,030	563	899	1,332	1,934	263	335	602
Total	3,393	4,022	3,542	4,104	6,935	8,125	629	561	1,190
Percentage composition									
Primary	69.4	62.3	75.1	66.3	72.3	64.3	24.0	10.8	17.7
Secondary	8.1	11.6	9.0	11.5	8.5	11.5	30.5	27.3	29.0
Tertiary	22.6	25.6	15.9	21.9	19.2	23.8	41.8	59.8	50.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Institute of Statistics, Cambodia Population Census 2008 & Cambodia Population Inter-Censal Survey 2013

In terms of growth between 2008 and 2013, total employment grew by around 238,000 jobs per year, in which non-agricultural employment represented 79.9%. Most non-agricultural employment was in the export oriented garment sectors, of which only 30% were filled by workers shifting from low-productivity agriculture.

**Figure 3-9 Employment growth by sex and sector (%), 2008–2013**



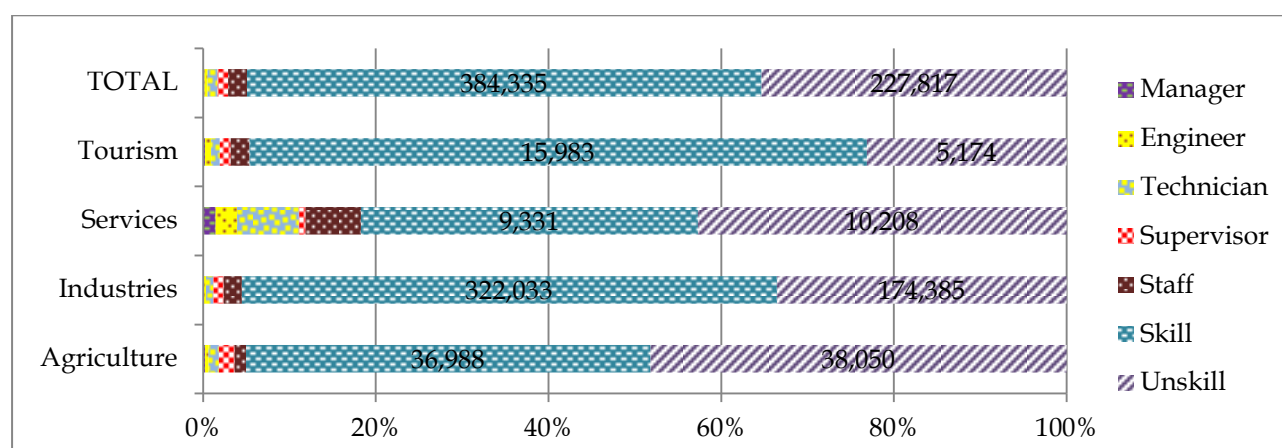
Source: National Institute of Statistics, Cambodia Population Census 2008 & Cambodia Population Inter-Censal Survey 2013

By sector, agriculture employment has expanded at a rate of 4.2%, slower than total employment growth of 17.2%, while employment in the service sector increased by 45.2%; and the industry

sector grew at the highest rate of 58.5% (figure 3-9). Although employment growth in the industry and services sectors was very pronounced in percentage terms, it was not sufficient to meet the increase in potential labour supply generated by the increase in the working-age population (WAP), which in turn was the consequence of the demographic transition that is affecting Cambodia. In this situation, the agriculture sector acted as a sponge, providing shelter and subsistence to many young people who could not find employment in the modern sectors.

According to the Council for the Development of Cambodia (CDC), between 2010 and 2013 the qualified investment projects required about 645,000 workers, in which skilled workers represented 59.6%, and unskilled workers, 35.3% (figure 3-10).

**Figure 3-10 Workforce demand by qualified investment project, 2010–2013**



Source: Council for the Development of Cambodia (CDC), 2013

In the near future, with GDP growth forecast to stay at around 7% for 2012–2018, and the increased inflow of FDI into product assembly, and the agro-processing and tourism-related sectors, it is projected by Hyeok Jeong (2013) that the total average employment growth between 2012 and 2015 will be 11.5%. By sector, employment in agriculture and services will grow by 8.2% and 14.1% per annum respectively, while employment in the industry sector will register the highest annual growth rate of 16.1% (table 3-6).

**Table 3-6 Actual and Forecast Employment Growth Rate by Sector, 1993–2015**

Sector	1993-2012	1993-1999	1999-2008	2008-2009	2009-2012	2012-2015
Agriculture	1.7%	3.9%	0.1%	8.1%	0.4%	8.2%
Industry	10.7%	10.2%	12.8%	3.8%	7.8%	16.1%
Services	5.0%	-0.4%	8.6%	-3.3%	8.8%	14.3%
<b>Total</b>	<b>3.5%</b>	<b>3.3%</b>	<b>3.3%</b>	<b>4.2%</b>	<b>3.9%</b>	<b>11.5%</b>

Source: Hyeok Jeong, 2013

In terms of skills, more demand for medium-level skills, especially for service workers in the service sector, and craftsman in the industry sector. The high-level industrial skilled workforce, such as technicians in the electricity, gas and water supply sector are also growing. Moreover, in the agriculture sector in which employment is forecast to move from crops to livestock, more skilled livestock farmers will be needed.



## 4. Research Findings

### 4.1. Characteristics of Establishments' Populations

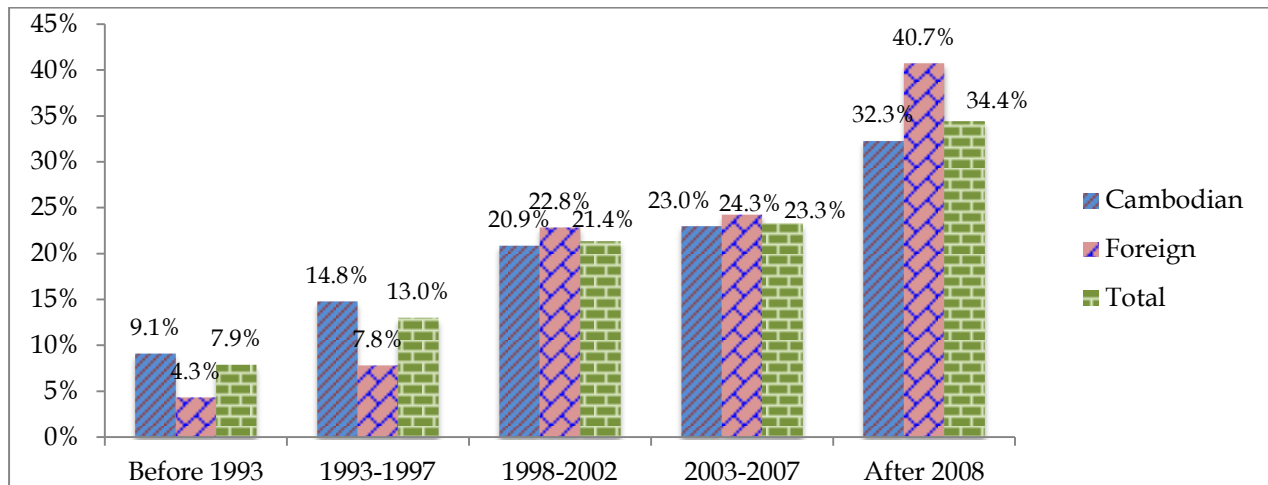
This section presents the main characteristics of the establishments covered by the survey, and more specifically their age, business entity type, nationality of ownership, market, size, and registration by sector.

The observations were weighted using the establishment sampling weights and employment weights in order to obtain the representative distribution of establishments in the population. We see that the 528 establishments translate to an estimate of approximately 3,172 establishments, accounting for 445,007 employees.

#### 4.1.1. Ages of Businesses Operating

Given Cambodia's modern history, the establishments interviewed were relatively young, with an average age of 11.2 years. Only 7.9% started businesses before 1993, 13.0% started during 1993–1997, while 79.1% were established after 1998, as shown in figure 4-1. The number of establishments starting business progressively increased from about 678 establishments during the 1998–2002 period, to 740 between 2003 and 2007, and to 1,092 since 2008.

**Figure 4-1 Total establishments by nationality of ownership and group years of starting business**



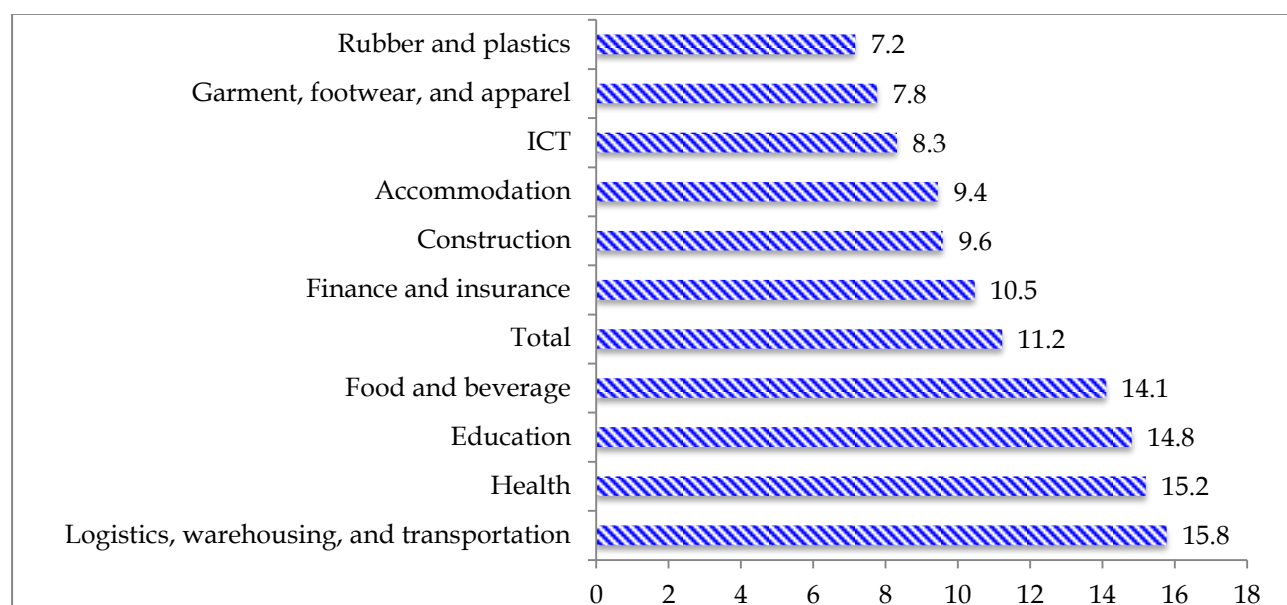
N=3,172

Source: NEA's ESNS 2014

By sector, the figure 4-2 below suggests that the rubber and plastics sector was the youngest sector with an average age of 7.2 years, followed by ICT (8.3 years), and garment, footwear and apparel (7.8 years). Additionally there were four sectors: food and beverage, education, human health and logistics, in which the establishments were quite mature with an average age of establishment of more than 14 years. For the other sectors, the average age of establishment ranged between 9.4 years in accommodation and 10.5 years old in finance and insurance.



**Figure 4-2 Total establishments by sector and group years of starting business**



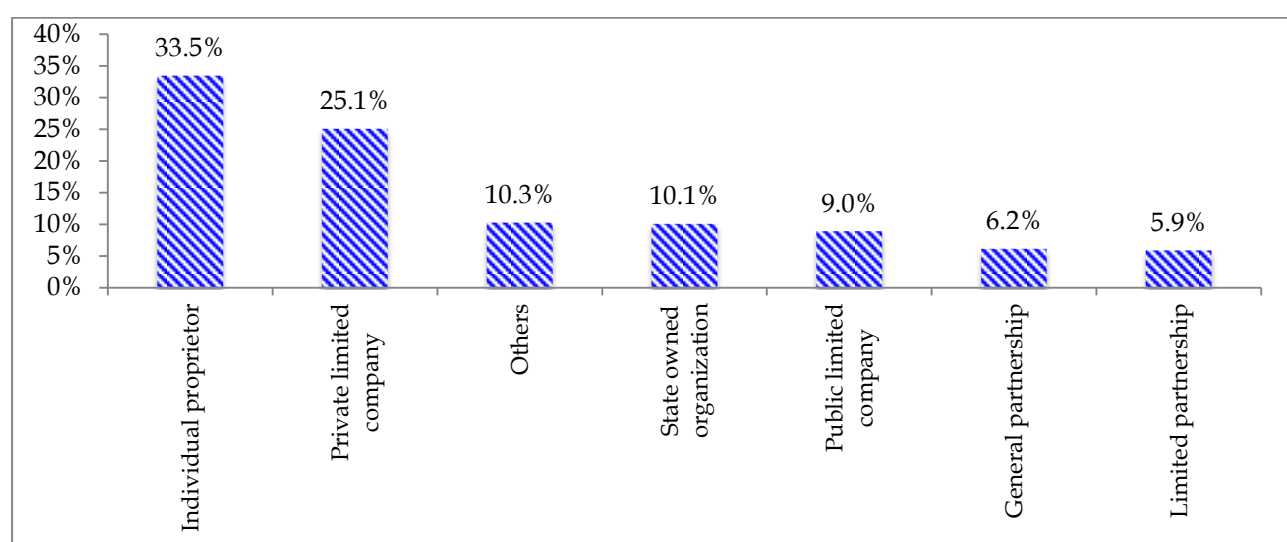
N=3,172

Source: NEA's ESNS 2014

### 4.1.2. Type of Business Entity

The most common type of business entity was individual proprietor, representing 33.5% of total establishments, followed by private limited company, 25.1%. The third place was state owned organizations (10.1% of total establishments), which accounted more than half (54.7%) of total establishments in the human health sector and a third (34.9%) in the education sector. While public limited companies accounted for only 9.0% of total establishments, a largely proportion were in the finance and insurance sector (43.3%).

**Figure 4-3 Share of establishments by type of business entity**



N=3,172

Source: NEA's ESNS 2014

The share of establishments by sector and type of business entity was seen as follows:

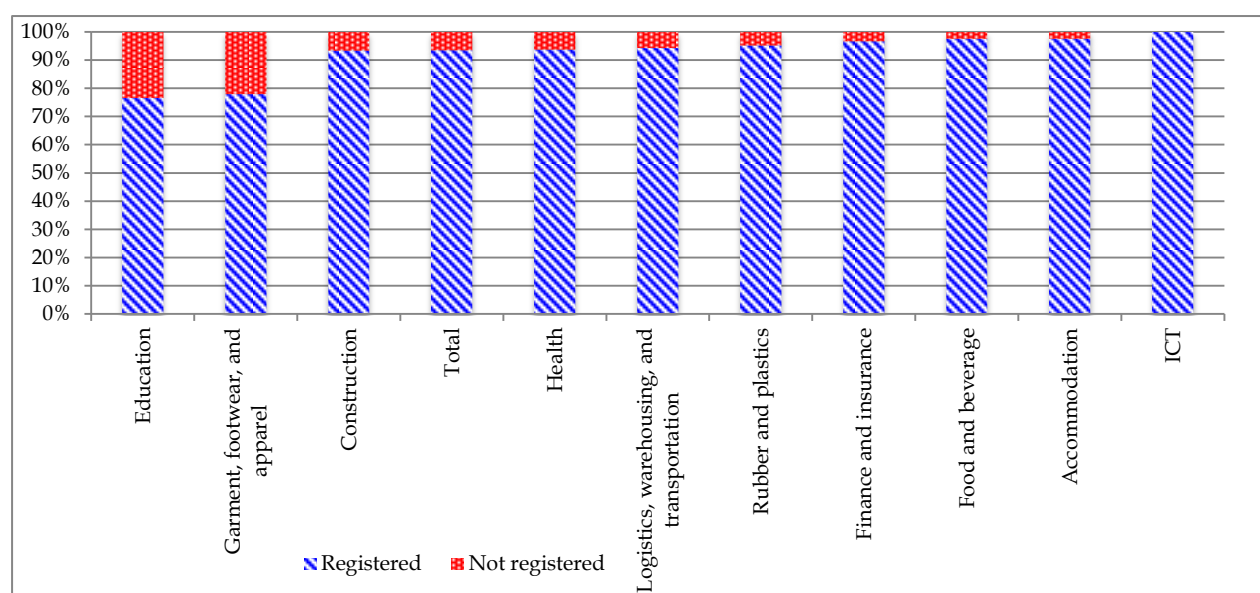
**Table 4-1 Distribution of establishments by sector and type of business entity**

	Individual proprietor	General partnership	Limited partnership	Private limited company	Public limited company	State owned organization	Others	Total
<i>Absolute value</i>	-	-	-	-	-	-	-	-
Accommodation	261	47	25	147	2	0	2	483
Construction	24	3	11	50	3	0	3	95
Education	52	9	6	14	6	64	30	182
Finance and insurance	29	32	52	187	265	6	41	611
Food and beverage	225	10	8	102	0	0	12	356
Garment, footwear, and apparel	329	37	63	213	7	0	43	691
Human health	70	48	0	6	-	249	83	456
ICT	24	-	10	7	0	0	7	48
Logistics, warehousing, and transportation	18	2	2	47	2	0	1	71
Rubber and plastics	31	8	10	24	0	2	104	179
Total	1,063	195	188	796	284	321	326	3,172
<i>Percentage composition by type of business entity (%)</i>	-	-	-	-	-	-	-	-
Accommodation	54.1	9.7	5.2	30.4	0.4	0.0	0.4	100.0
Construction	25.7	3.5	11.6	52.3	3.4	0.0	3.5	100.0
Education	28.7	5.2	3.5	7.8	3.5	34.9	16.5	100.0
Finance and insurance	4.8	5.2	8.6	30.5	43.3	0.9	6.7	100.0
Food and beverage	63.1	2.7	2.2	28.7	0.0	0.0	3.3	100.0
Garment, footwear, and apparel	47.6	5.3	9.1	30.8	0.9	0.0	6.3	100.0
Human health	15.3	10.4	0.0	1.4	0.0	54.7	18.2	100.0
ICT	50.5	0.0	21.4	13.5	0.0	0.0	14.6	100.0
Logistics, warehousing, and transportation	24.6	2.3	2.4	66.7	2.4	0.0	1.6	100.0
Rubber and plastics	17.1	4.5	5.7	13.4	0.0	1.2	58.1	100.0
Total	33.5	6.2	5.9	25.1	9.0	10.1	10.3%	100.0

Source: NEA's ESNS 2014

### 4.1.3. Commercial Registration

**Figure 4-4 Share of total establishments by the status of commercial registration**



N=3,172

Source: NEA's ESNS 2014

Most establishments (93.6%) described their operations as registered businesses, and with small minorities (6.4%) operating as unregistered. The highest proportion of unregistered establishments was found in the education sector (23.4% of total establishments), followed by the garment sector (22.1%). For other sectors, the proportion of unregistered establishments ranged from a minimum value of 0% in ICT to a value of 6.6% in the construction sector, as shown in figure 4-4.

#### 4.1.4. Ownership

Around three-quarters of establishments were owned by Cambodians, with 6.2% were owned by Chinese entities; 5.6% by ASEAN entities, 5.2% by Taiwanese (China) entities, and 3.0% by European entities, as shown in table 4-2.

**Table 4-2 Total establishments by nationality of ownership**

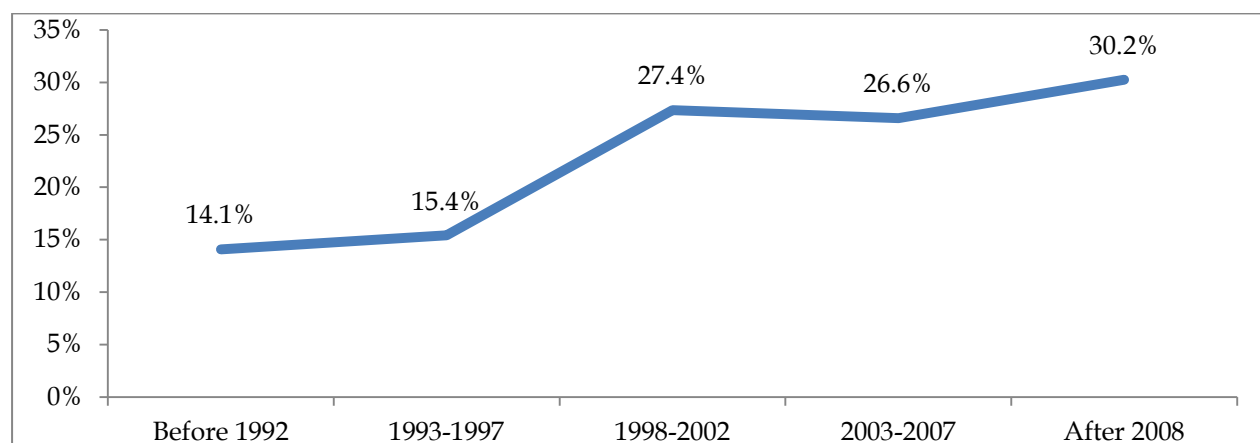
Nationality	Abs. value	%
Cambodian	2,362	74.4%
Chinese	196	6.2%
ASEAN	177	5.6%
Taiwanese, China	166	5.2%
European	95	3.0%
Korean	63	2.0%
American	63	2.0%
Other nationalities	24	0.7%
Japanese	28	0.9%

*N=3,172*

*Source: NEA's ESNS 2014*

The proportion of foreign-owned establishments in the total establishments has progressively increased since 1993 to the present, though there was a slight decrease during 2003–2007, as shown in figure 4-5.

**Figure 4-5 Share of foreign-owned establishments over the total number of establishments starting businesses**

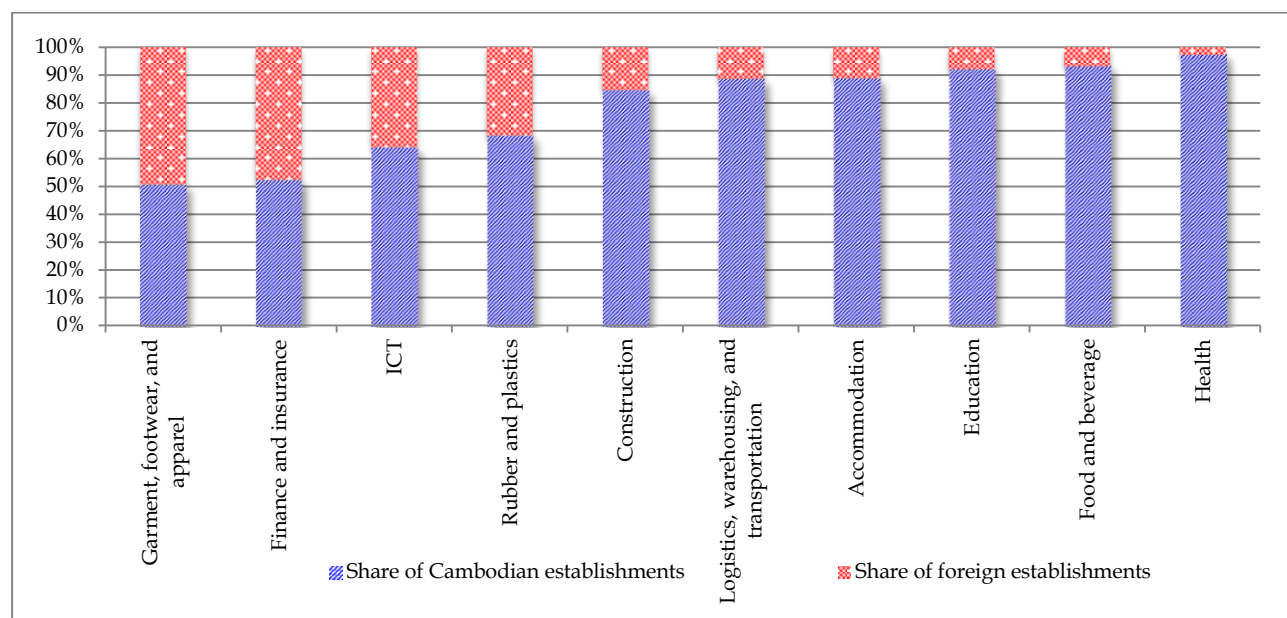


*N=3,172*

*Source: NEA's ESNS 2014*

The highest proportion of foreign-owned establishments was found in the garment, footwear, and apparel sector (50.7%), followed by finance and insurance (47.6%). For the garment sector, most foreign owned establishments belonged to entities from China, particularly Taiwan. For other sectors, the proportion of foreign owned establishments ranged from 35.9% in the ICT sector to a minimum of 2.7% in human health sector, as shown in figure 4-6.

**Figure 4-6 Total establishments by sector and nationality of ownership**



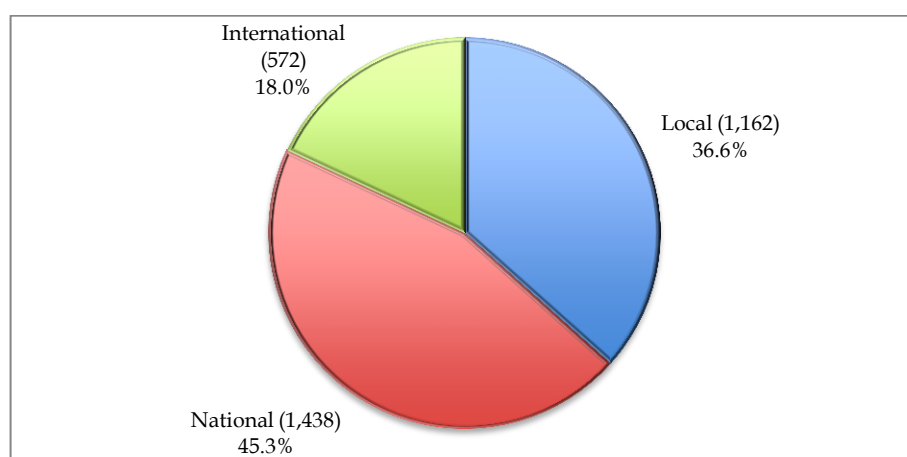
N=3,172

Source: ESNS 2014

### 4.1.5. Market

The majority of establishments (45.3%) operated in the national market, 36.6% limited their activity to the local market, and 18.0% were active in the international market.

**Figure 4-7 Share of total establishments by type of market**

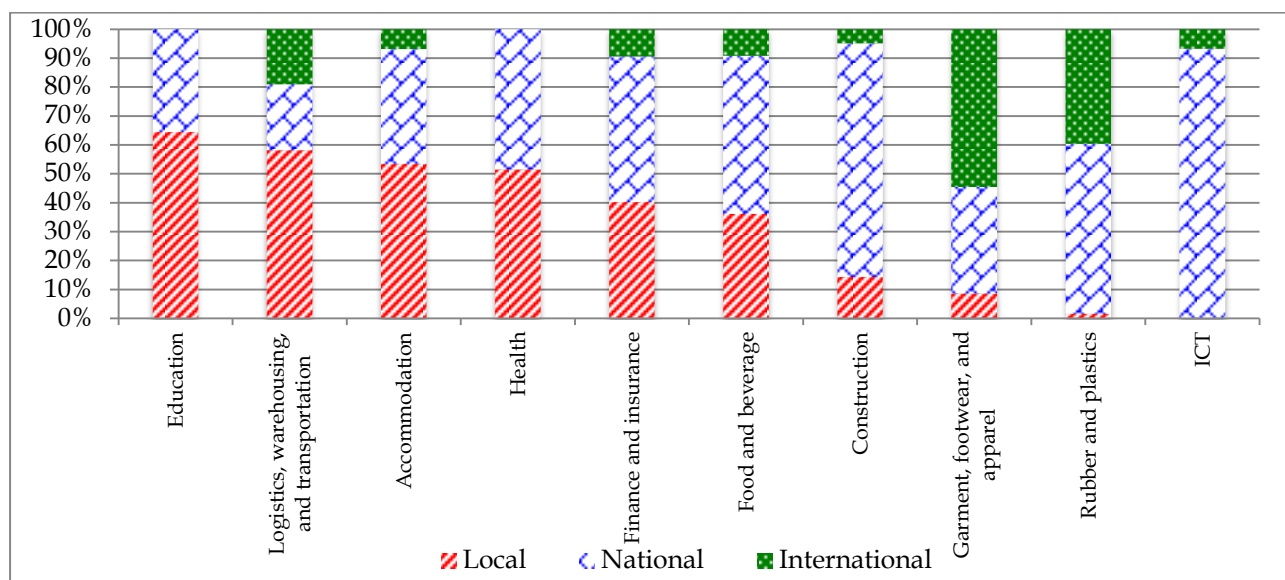


N=3,172

Source: NEA's ESNS 2014

By sector, above half of establishments in the education, logistics, accommodation, human health sectors operating their businesses largely depended on the local market. Whilst the sectors that were active in the national market were: ICT, finance, food and beverage, construction, and the rubber and plastics sectors. The garment, footwear, and apparel sector was an export-oriented sector, which definitely depended on the international market.

**Figure 4-8 Share of total establishments by sector and type of market**

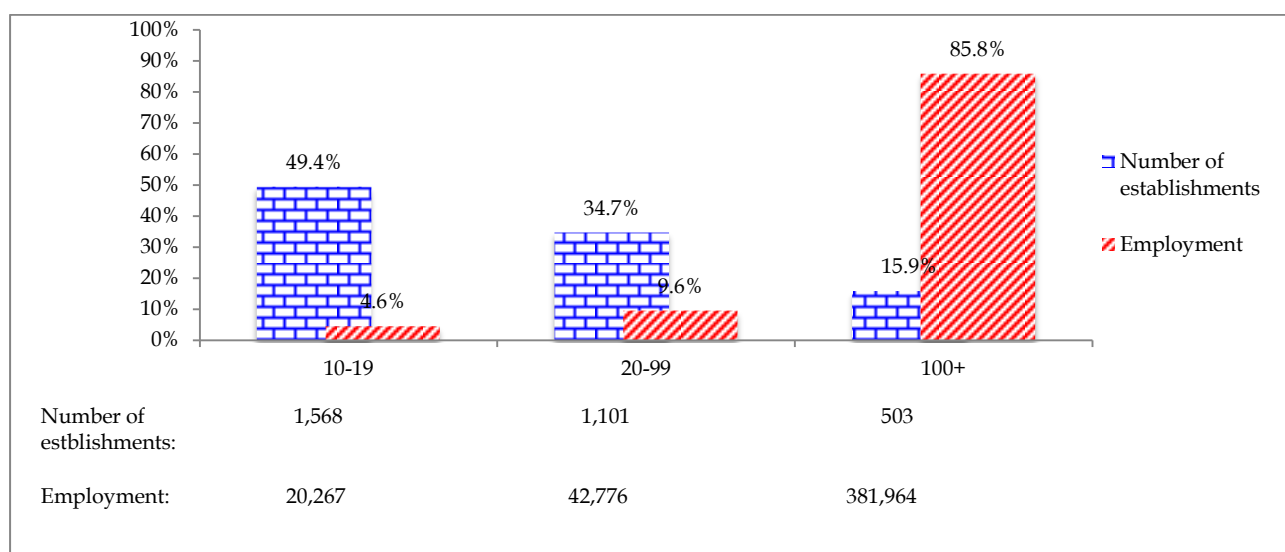


N=3,172

Source: NEA's ESNS 2014

#### 4.1.6. Size of Employment

**Figure 4-9 Distribution of establishments and employees by group size**



N=3,172

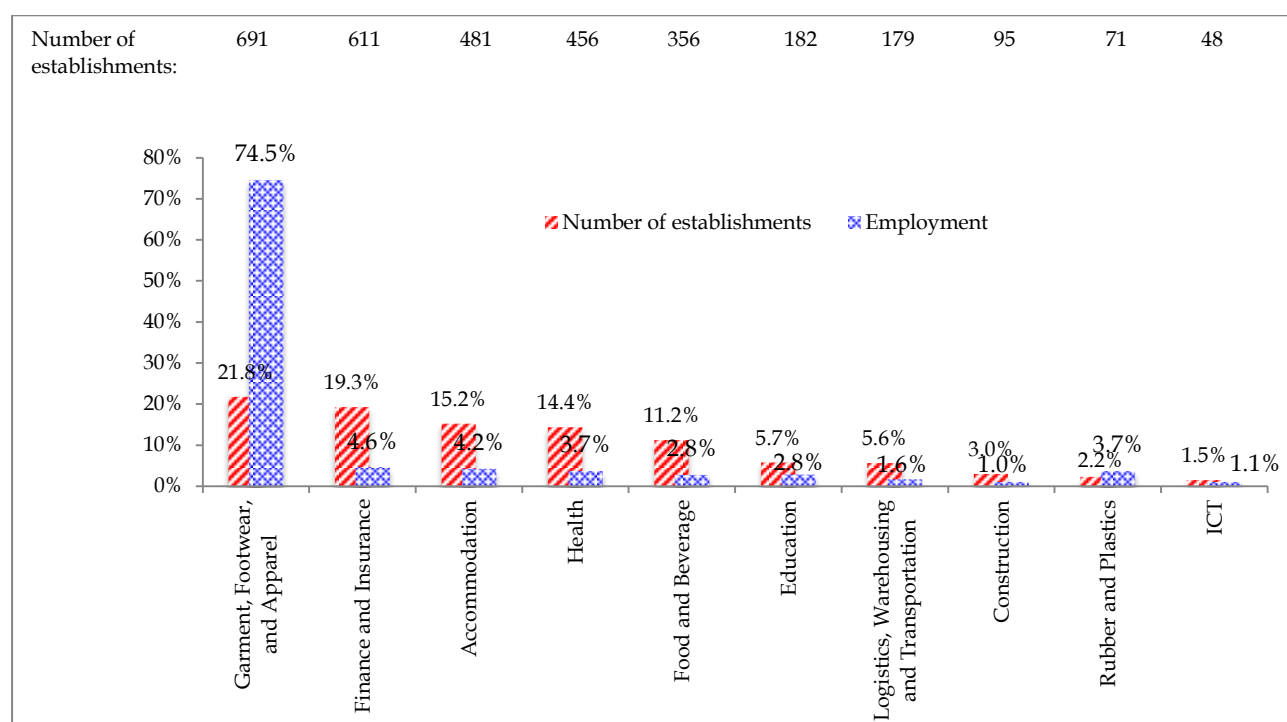
Source: NEA's ESNS 2014

Figure 4-9 shows that the majority of establishments (49.4%) were small-sized establishments (10-19 employees), 34.7% were medium-sized establishments, while only 15.9% were large

establishments, here defined as those with more than 100 employees. Regarding the size of employment, establishments employing 100 or more employees represented 85.8% of overall employment, followed by medium size, 9.6%, while small establishments accounted only for 4.6% of all employment (see figure 4-9).

Figure 4-10 shows that the garment, footwear and apparel; finance and insurance; accommodation; human health; and food and beverage sectors were the largest sectors in terms of the number of establishments. Together, these five sectors accounted for more than two-thirds of the total number of establishments. When measured in terms of people employed in the sector, however, garment, footwear, and apparel alone represented 74.5% of the total employment.

**Figure 4-10 Distribution of establishments by sector and employment**



N=3,172

Source: NEA's ESNS 2014

## 4.2. Market Development and Capacity Utilization Among the Personnel

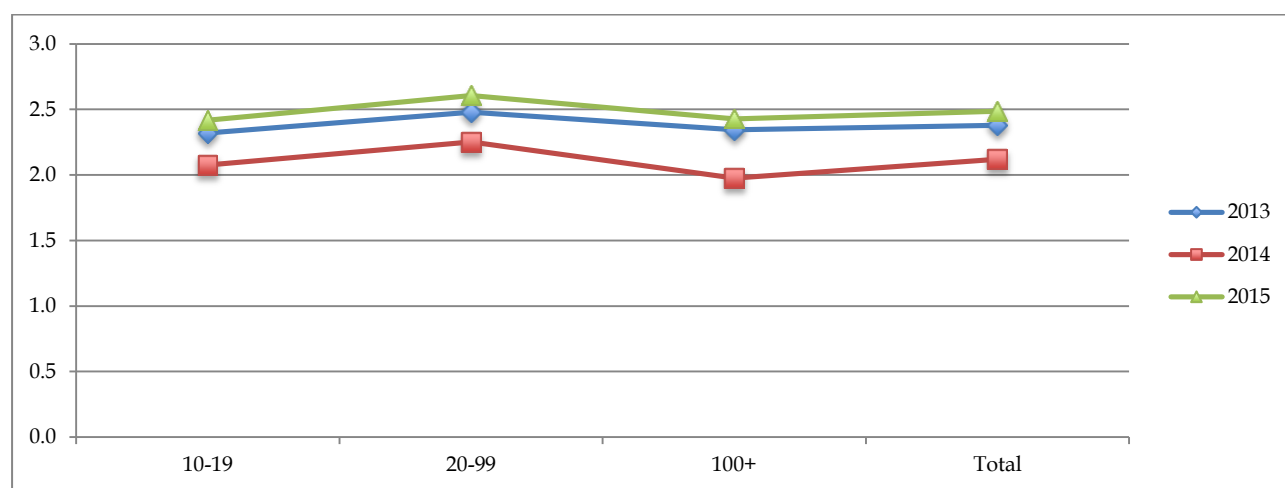
The NEA's ESNS 2014 included a series of questions, which asked establishments to evaluate the level of market development in 2013, 2014 and 2015. This indicator can be seen to give a sense of the business cycle for different sectors. Additionally, a very relevant issue explored by the survey was to identify the level of capacity utilization among personnel in establishments operating in Cambodia, which serves as a proxy indicator to evaluate the level of labour productivity.

### 4.2.1. Market Development

Figure 4-11 and figure 4-12 below show the index of the demand for goods and services, or in this case, an indicator that reflects the business cycle for each sector. The individual demand for goods and services were then aggregated to derive the index of demand on a scale from 1 to 3. The higher the index means the higher demand for goods and services. For example, if the value of the index is above 2, this implies that there is an increase in the demand for goods and services compared to the previous year. If the value is less than 2, it implies that the demand decreases. If the value equals 2, this means that the demand is unchanged.

The figure 4-11 indicates that overall establishments were more likely to evaluate the demand for goods and services as slightly increased in 2014 compared to 2013; however, in 2015 they expected that demand would further expand. Regarding the size of the establishment, the medium-sized establishments seemed to be more optimistic than small and large establishments.

**Figure 4-11 Index of demand of goods and services in 2013, 2014, and 2015 by group size**



N=3,172

Source: NEA's ESNS 2014

By sector, the finance and insurance, human health, construction, education, and ICT sectors reported that there was an increase in demand in 2013 and 2014 and they also expected an increase in demand in 2015. Establishments in the rubber and plastics, food and beverage, and accommodation sectors experiencing an increase in demand in 2013, reported that demand stagnated in 2014 but they expected the demand to recover in 2015. The establishments in the

garment and logistics sectors evaluated that there was a decrease in demand in 2014 compared to 2013. Moreover, they were also pessimistic about demand in 2015.

**Figure 4-12 Index of demand of goods and services in 2013, 2014, and 2015 by sector**



N=3,172

Source: NEA's ESNS 2014

## 4.2.2. Capacity Utilization Among Personnel

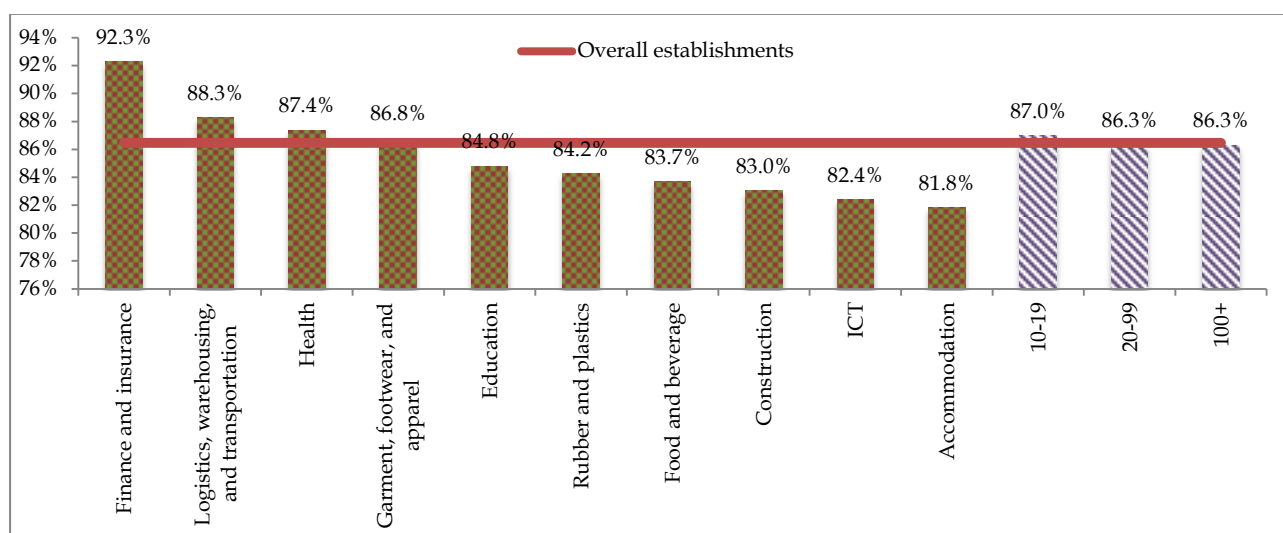
A very relevant issue explored by the survey was to identify the level of capacity utilization among personnel in establishments operating in Cambodia. This data certainly plays a very important role in determining the level of demand for labour and serves as a proxy indicator to evaluate the level of labour productivity. For instance, if an establishment experiences high productivity of labour, it normally reports the high level of capacity utilization and vice versa. Additionally, if an establishment has a low level of capacity utilization among exiting personnel or does not fully utilize the capacity of its personnel, the establishment theoretically can increase production (a little or a lot) by improving the capacity utilization of its workers before recruiting additional staff.

The overall establishments indicated that capacity utilization among their existing personnel was about 86.3% and there was no differential level of capacity utilization among different sizes of establishments, as illustrated in the figure 4-13.

However, the level of this capacity utilization varied from one sector to another; ranging between a maximum of 92.3% in the finance and insurance sector to a minimum of 81.8% in the accommodation sector (figure 4-13).



**Figure 4-13 Capacity utilization among personnel by sector and group size**



N=3,172

Source: NEA's ESNS 2014

Combining this data with the index of demand for goods and services, overall establishments will most likely recruit new, additional employees to increase their productivity in order to respond to future demand in 2015, particularly establishments in the finance and insurance; human health; education; rubber and plastics; and construction sectors.

## 4.3. Employment Structure and Turnover Rate

### 4.3.1. Employment Level and Structure in 2013

#### 4.3.1.1. Sectorial analysis

The total number of employees in the sampled establishments amounted to 112,642 employees, which translated to an estimated 445,007 employees. Around 85.8% of total employees were concentrated in the large-sized establishments, followed by medium-sized establishments (9.6%) and small-sized establishments (4.6%). The average size of overall establishments was 140 employees.

Consistent with economic census data in 2011, the majority of employees were in the garment, footwear, and apparel sector, representing 74.5% of total employment. The large establishments in this sector accounted for 84.2% of total employment across all large establishments. This aspect of the sector was reflected by the large average size of workforces, at 480 employees as shown in table 4-3.

The shares of the other sectors were between 4.6% for the finance and insurance sector and a minimum of 1.1% in the ICT sector. The finance and insurance and human health sectors presented the highest concentration of employment in small-sized establishments, with 19.7% and 19.5% respectively. The finance and insurance sector was also characterized by the smallest average size

of establishment (34 employees) due to the high number of small branches in the provinces.<sup>5</sup> The rubber and plastics sector was characterized by the second largest establishment, in which employment represented 3.8% of total employment; 88.5% of total employment in this sector was concentrated in the large-sized establishments, and the average size of the establishment was 230 employees.

**Table 4-3 Employment by sector and size of establishment in 2013**

Sector	Size of establishment			Total	Average
	10-19	20-99	100+		
<i>Absolute value</i>					
Accommodation	3,550	6,424	8,813	18,786	39
Construction	485	1,649	2,481	4,615	49
Education	553	4,881	7,089	12,523	69
Finance and insurance	3,985	10,159	6,358	20,502	34
Food and beverage	3,172	2,934	6,222	12,328	35
Garment, footwear, and apparel	2,997	6,860	321,682	331,539	480
Human health	3,945	4,230	8,273	16,448	36
ICT	N/A	1,622	3,074	4,696	98
Logistics, warehousing, and transportation	1,374	2,352	3,520	7,246	40
Rubber and plastics	206	1,666	14,453	16,324	230
Total	20,267	42,776	381,964	445,007	140
<i>Row percentage</i>					
Accommodation	18.9	34.2	46.9	100.0	
Construction	10.5	35.7	53.8	100.0	
Education	4.4	39.0	56.6	100.0	
Finance and insurance	19.4	49.6	31.0	100.0	
Food and beverage	25.7	23.8	50.5	100.0	
Garment, footwear, and apparel	0.9	2.1	97.0	100.0	
Human health	24.0	25.7	50.3	100.0	
ICT	N/A	34.5	65.5	100.0	
Logistics, warehousing, and transportation	19.0	32.5	48.6	100.0	
Rubber and plastics	1.3	10.2	88.5	100.0	
Total	4.6	9.6	85.8	100.0	
<i>Column percentage</i>					
Accommodation	17.5	15.0	2.3	4.2	
Construction	2.4	3.9	0.6	1.0	
Education	2.7	11.4	1.9	2.8	
Finance and insurance	19.7	23.7	1.7	4.6	
Food and beverage	15.6	6.9	1.6	2.8	
Garment, footwear, and apparel	14.8	16.0	84.2	74.5	
Human health	19.5	9.9	2.2	3.7	
ICT	N/A	3.8	0.8	1.1	
Logistics, warehousing, and transportation	6.8	5.5	0.9	1.6	
Rubber and plastics	1.0	3.9	3.8	3.7	
Total	100.0	100.0	100.0	100.0	

N=3,172

Source: NEA's ESNS 2014

<sup>5</sup> Around 72.4% of total sampled establishments in finance and insurance sector were branches and 84.5% of those branches were small and medium sized establishments.

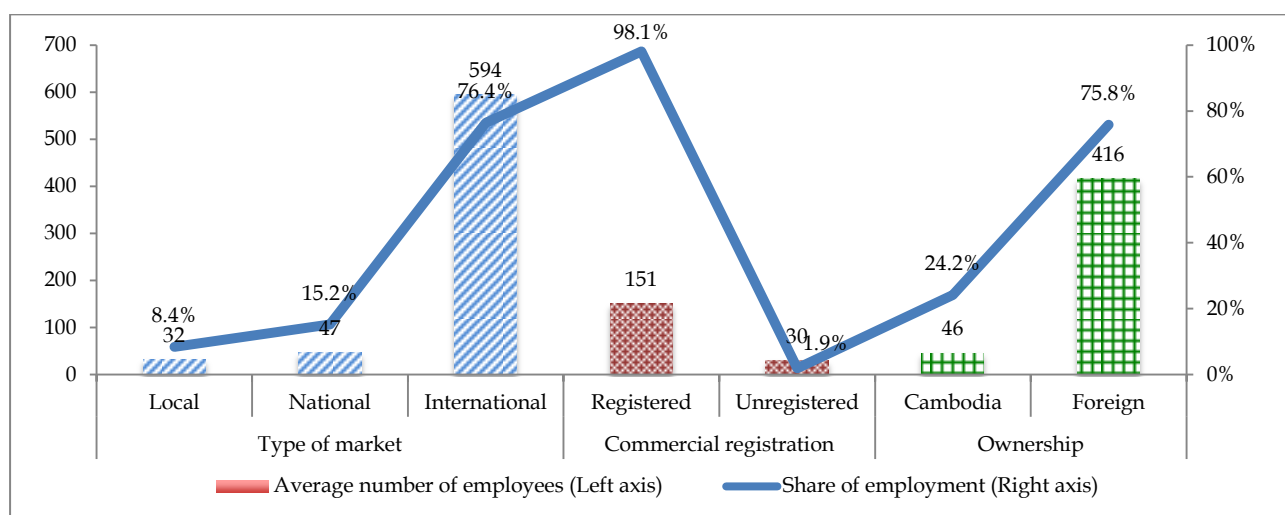
In most sectors, excluding the accommodation, finance and insurance, and logistics sectors, more than half of total employment was concentrated in the large-sized establishments ranged from 97% in garments to 50.3% in the human health sector.

The establishments operating in the international market played a dominant role, with about three-quarters of total employment. They were followed by establishments acting in the national market (15.2%), with local market establishments provided employment to only 8.4% of the total number of employees, as shown in figure 4-14. The establishments operating in the international market were characterized by a much larger size than establishments operating in the local and national market, with up to 594 employees per establishment on average. The international and national markets played a dominant role in establishments in the garment sector, and the local market in establishments in the accommodation and human health sectors (see table C.1 in appendix C).

Almost 76% of the total number of employed people worked in foreign-owned establishments. Foreign owned establishments were characterised by being much larger than Cambodian establishments (416 employees, on average, in foreign owned establishments compared to 46 employees in Cambodian owned establishments).

The unregistered establishments covered a minority of total employed (around 1.9%) and employed, on average, 30 employees per establishment.

**Figure 4-14 Average number of employees and share of employment by type of market, commercial registration, and ownership in 2013**

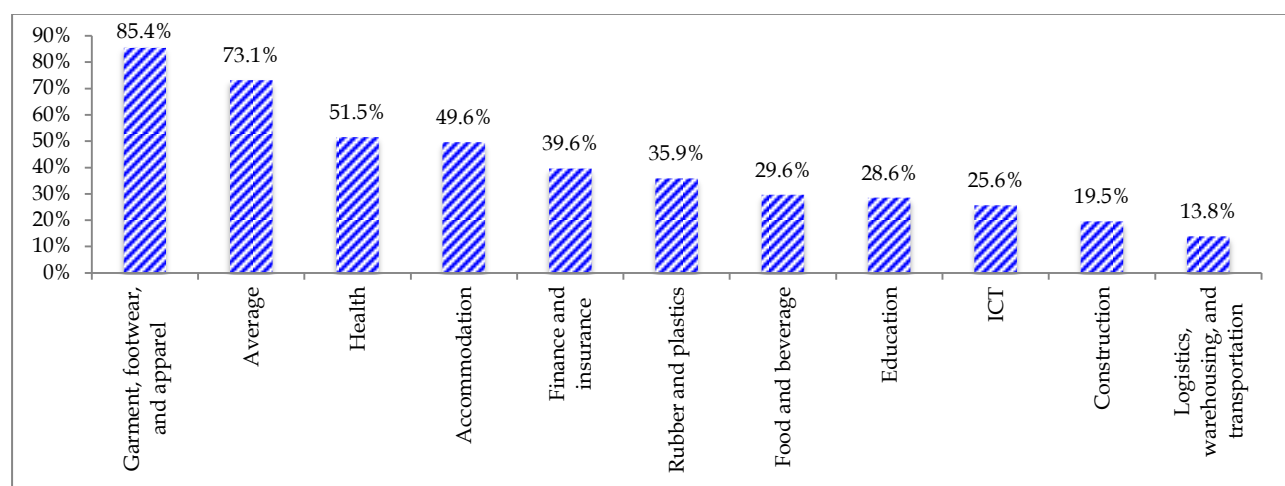


N=3,172

Source: NEA's ESNS 2014

As shown in figure 4-15, about 73.1% of the employees were women. However, the percentage varied greatly from one sector to another, from a maximum of 85.4% in the garment, apparel, and footwear sector to a minimum of 13.8% in the logistics, warehousing, and transportation sector. About half of those employed in the human health and accommodation sector were women, and there were also substantial numbers of female workers in the finance and insurance; rubber and plastics; and education sectors. In the other two sectors the proportion of females employed ranged between 25.6% and 19.5%.

**Figure 4-15 Share of females employed by sector in 2013**



N=3,172

Source: NEA's ESNS 2014

#### 4.3.1.2. Occupational analysis

An analysis by ISCO major occupation shows that the skill level required for the jobs was quite low (table 4-4). Craft and related trades workers, accounting for 55.3%, had the largest share, followed by elementary occupations with 12.5%. Plant and machine operators accounted for 2.9% of the total employed. In the occupations that require at least a high school diploma, technicians accounted for 5.8% of the total employed, professionals for 8.2%, and managers for 4.9%.

**Table 4-4 Distribution of sample by ISCO major group and sex in 2013**

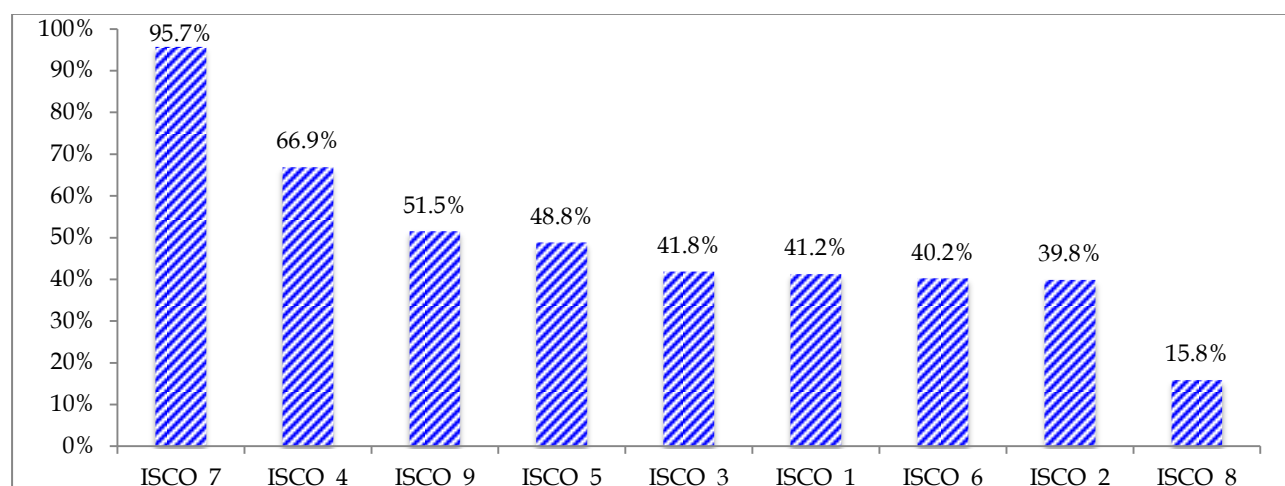
	Absolute value			Percentage		
	Total	Female	Men	Total	Female	Men
Managers	21,766	8,972	12,794	4.9	2.8	10.7
Professionals	36,625	14,584	22,041	8.2	4.5	18.4
Technical and associated professionals	25,959	10,856	15,103	5.8	3.3	12.6
Clerical support workers	16,834	11,256	5,579	3.8	3.5	4.7
Service and sales workers	19,814	9,676	10,139	4.5	3.0	8.5
Skilled agricultural, forestry, and fishery workers	9,551	3,841	5,710	2.1	1.2	4.8
Craft and related trades workers	245,977	235,359	10,618	55.3	72.4	8.9
Plant and machine operators, and assemblers	12,752	2,020	10,732	2.9	0.6	9.0
Elementary occupations	55,728	28,677	27,051	12.5	8.8	22.6
Total	445,007	325,240	119,767	100.0	100.0	100.0

N=3,172

Source: NEA's ESNS 2014

Female employment was heavily concentrated in occupations such as craft and related trades, and elementary occupations, as shown in table 4-4. However, the proportion of females employed varied greatly in different types of major occupation. Women represented 95.7% of craft and related workers, 66.9% of clerical support workers, 51.5% of elementary occupations, and 48.8% of services and sales workers. At the same time, they made up only 41.8% of technicians, 41.2% of managers, 40.2% of skilled agricultural workers, and 39.8% of professionals, while women represented the smallest proportion of plant and machine operators, and assemblers (15.8%).

**Figure 4-16 Share of women by ISCO major group in 2013**



**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=3,172

Source: NEA's ESNS 2014

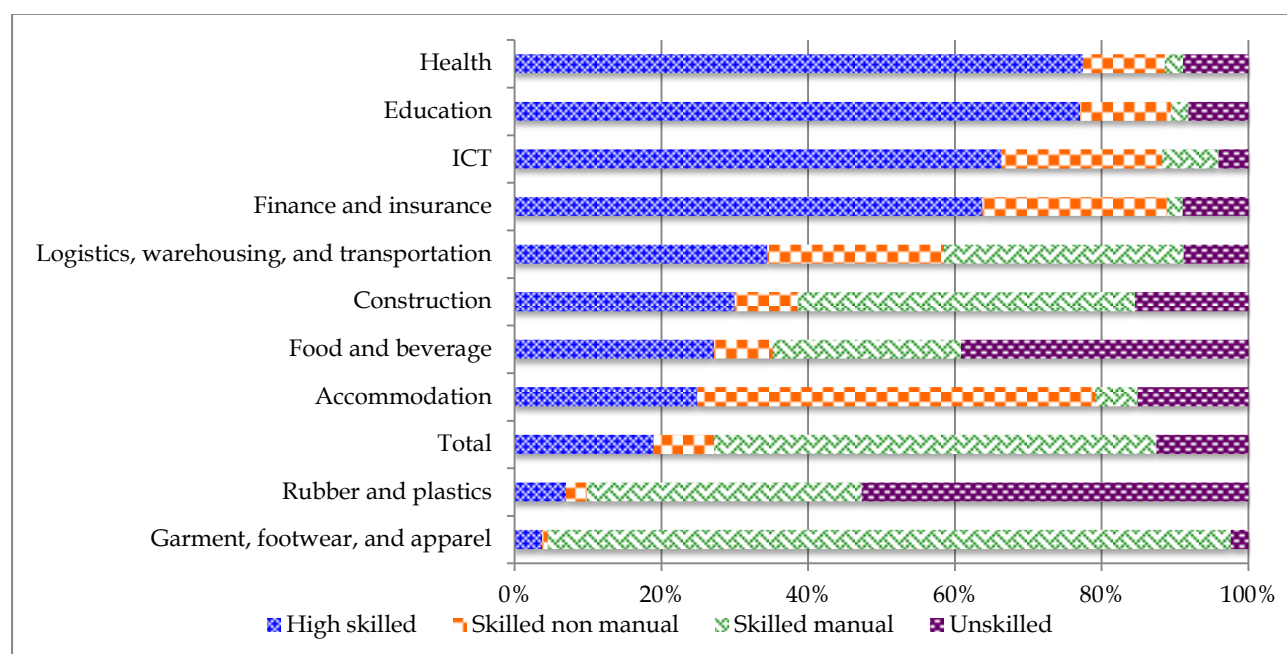
The workforce structure by major occupation differed substantially between sectors. Hence, in order to illustrate the characteristics of each sector in relation to education and skills levels, the nine ISCO major groups were regrouped into four broad occupation groups, as shown in table (see details in the appendix A):

**Table 4-5 Classification of four broad occupation groups**

Broad occupation group	ISCO major group	Skill level
Highly skilled	ISCO_1: Managers	Tertiary (ISCED 5-6)
	ISCO_2: Professionals	
	ISCO_3: Technician and associated professionals	
Skilled non manual	ISCO_4: Clerical support workers	Secondary (ISCED 2-4)
	ISCO_5: Service and sale workers	
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 results, shown in figure 4-17, show that the more educated segment of the labour force (highly skilled) played major roles in the human health, education, ICT, and finance and insurance sectors. Skilled non-manual was predominant in accommodation, and played consistent roles in the ICT, finance and insurance, and logistic sectors. The garment and construction sectors specialized in skilled manual workers, while unskilled labour represented the majority of employment in the rubber and plastics, and food and beverage sectors.

**Figure 4-17 Share of employment by broad occupation group and sector in 2013**



N=3,172

Source: NEA's ESNS 2014

The detail distribution of employment by ISCO major group and sector is presented in table 4-6 below:

**Table 4-6 Distribution of employed by sector and ISCO major group in 2013**

	ISCO_1	ISCO_2	ISCO_3	ISCO_4	ISCO_5	ISCO_6	ISCO_7	ISCO_8	ISCO_9	Grand Total	
										%	Absolut e value
Percentage composition by ISCO											
Accommodation	6.9	14.7	3.3	13.4	40.9	0.3	2.2	3.3	15.1	100.0	18,786
Construction	10.3	14.6	5.1	5.6	3.0	5.2	29.4	11.4	15.4	100.0	4,615
Education	8.8	53.6	14.6	9.5	3.0	0.4	1.2	0.8	8.1	100.0	12,523
Finance and insurance	12.2	23.0	28.5	15.9	9.2	0.0	0.6	1.6	8.9	100.0	20,502
Food and beverage	8.8	8.3	10.0	2.3	5.7	3.1	10.7	11.9	39.2	100.0	12,328
Garment, footwear, and apparel	2.5	1.0	0.3	0.6	0.2	-	92.4	0.6	2.4	100.0	331,539
Human health	6.5	29.6	41.3	5.0	6.1	1.1	0.0	1.4	8.9	100.0	16,448
ICT	10.1	17.8	38.4	6.5	15.4	-	5.9	1.8	4.1	100.0	4,696
Logistics, warehousing, and transportation	6.4	4.9	23.1	4.6	19.5	-	1.6	31.0	8.8	100.0	7,246
Rubber and plastics	5.1	1.0	0.9	2.5	0.4	14.2	15.5	7.8	52.7	100.0	16,324
Total	4.9	8.2	5.8	3.8	4.5	2.1	55.3	2.9	12.5	100.0	445,007
Percentage composition by sector											
Accommodation	9.0	11.4	3.6	22.5	58.4	0.9	0.2	7.3	7.7	6.4	
Construction	5.4	4.5	2.2	3.8	1.7	6.2	1.4	10.2	3.1	2.6	
Education	10.3	37.0	14.2	14.2	3.8	1.1	0.1	1.5	3.7	5.7	
Finance and insurance	19.8	22.2	38.8	33.4	16.5	0.0	0.1	4.3	5.7	7.9	
Food and beverage	6.8	3.8	6.5	2.3	4.9	5.4	0.7	15.8	11.9	3.8	
Garment, footwear, and apparel	28.4	6.7	2.6	8.8	2.3	0.0	93.7	12.5	10.8	56.1	
Human health	3.8	10.3	20.4	3.8	4.0	1.4	0.0	1.4	2.0	2.9	
ICT	1.7	1.8	5.5	1.4	2.9	0.0	0.1	0.5	0.3	0.8	
Logistics, warehousing, and transportation	1.4	0.6	4.2	1.3	4.6	0.0	0.0	11.4	0.7	1.0	
Rubber and plastics	13.5	1.6	2.0	8.5	1.0	85.0	3.6	35.1	54.1	12.9	
Grand Total	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Abs. value	21.766	36.625	25.959	16.834	19.814	9.551	245.977	12.752	55.728	

**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

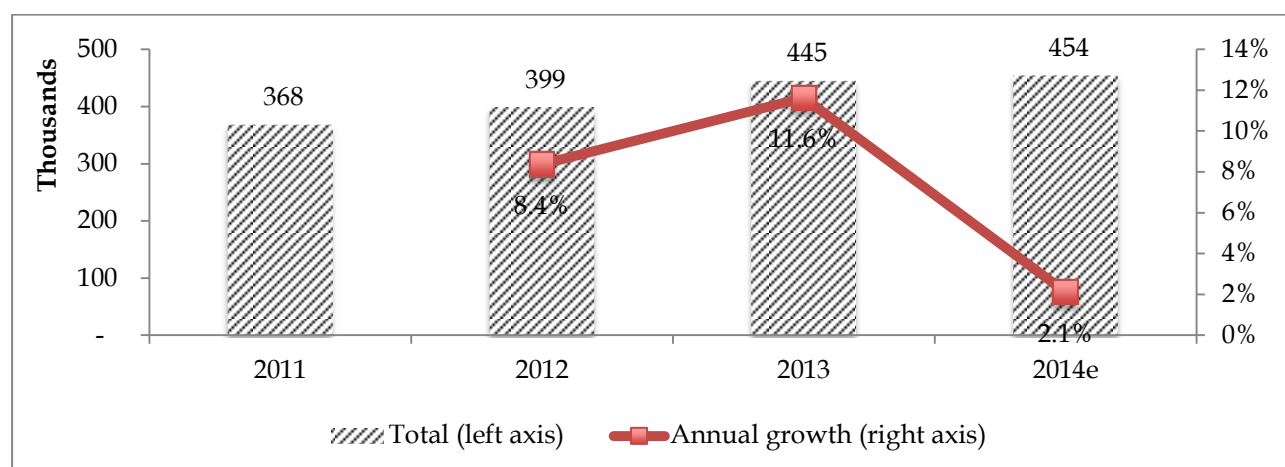
N=3,172

Source: NEA's ESNS 2014

## 4.3.2. Employment Growth

### 4.3.2.1. Past and Current Trend of Employment Growth

One noteworthy observation that emerged from the survey was the positive trend in employment growth between 2011 and 2014 with an average growth rate of 7.4% per year. In terms of absolute value, total employment will increase from 367,827 in 2011 to an approximate amount of 454,447 in 2014 (figure 4-18).

**Figure 4-18 Employment growth from 2011 to 2014**

N=3,172

Source: NEA's ESNS 2014

In terms of sectors, between 2011 and 2014, the total employment level of ten sectors has increased by a very notable 23.5%. The sector that has reported the biggest percentage increase was the construction sector (40.8%), followed by the finance and insurance sector (38.0%), and the food and beverage sector (32.1%). The garment, footwear and apparel sector, with the largest share of employment, also registered consistent growth of 25.9%. The other sectors, except ICT, have also experienced positive growth; however they have remained below average, with a range from 8.0% in the rubber and plastics sector to 13.6% in the education sector. ICT is the only sector that had negative employment growth rate between 2011 and 2014, though it has registered positive growth during 2014.

Overall, total female employment has increased by 23.7% or 63,714 between 2011 and 2014. The share of female employment has been stable at around 73% during the same period.

The largest contribution to employment growth came from the garment, footwear and apparel sector (78.9%), followed by finance and insurance (7.6%), and food and beverage (3.9%), as shown in table 4-7.

**Table 4-7 Employment growth from 2011 to 2014e by sector**

	2011	2012	2013	2014e	2011-2014e		Percentage contribution to change
					Absolute change	Percentage change	
Accommodation	17,583	18,739	18,786	19,339	1,757	10.0	2.0
Construction	3,861	4,306	4,615	5,436	1,575	40.8	1.8
Education	11,538	12,358	12,523	13,105	1,567	13.6	1.8
Finance and insurance	17,282	18,469	20,502	23,842	6,560	38.0	7.6
Food and beverage	10,461	11,201	12,328	13,819	3,358	32.1	3.9
Garment, footwear, and apparel	264,311	289,263	331,539	332,650	68,340	25.9	78.9
Human health	15,043	16,067	16,448	16,829	1,787	11.9	2.1
ICT	5,331	5,136	4,696	5,078	-253	-4.8	-0.3
Logistics, warehousing, and transportation	6,827	6,942	7,246	7,515	688	10.1	0.8
Rubber and plastics	15,591	16,157	16,324	16,833	1,243	8.0	1.4
Total employment	367,827	398,637	445,007	454,447	86,620	23.5	100.0
Total female employment	268,619	291,933	325,240	332,332	63,714	23.7	
Share of females in total employment (%)	73.0	73.2	73.1	73.1			

N=3,172

Source: NEA's ESNS 2014

Between 2011 and 2014, the growth in employment was greater for medium-sized establishments (35.4%), followed by small-sized (23.5%) and large-sized (23.1%), as shown in table 4-8. However, the biggest contribution to employment expansion came from large establishments, as they have generated 89.4% of additional jobs.

**Table 4-8 Employment growth from 2011-2014e by size of establishment, type of market and sex**

	Absolute value		Percentage change		% contribution to change	
	Total	Female	Total	Female	Total	Female
<b>Size of establishment</b>						
10-19	3,087	1,722	16.7	23.5	3.6	2.7
20-99	10,780	5,008	31.2	35.4	12.4	7.9
100+	72,753	56,984	23.1	23.1	84.0	89.4
Total	86,620	63,714	23.5	23.7	100.0	100.0
<b>Type of market</b>						
Local	6,011	3,402	18.3	24.7	6.9	5.3
National	18,155	10,121	32.4	48.4	21.0	15.9
International	62,453	50,191	22.4	21.5	72.1	78.8
Total	86,620	63,714	23.5	23.7	100.0	100.0

N=3,172

Source: NEA's ESNS 2014

By type of market, the greater expansion of employment has been seen in establishments operating in the national market (31.2%), followed by those operating at the international level (22.4%), and the lowest rate of growth has been registered by establishment operating at the local level (18.3%).



However, establishments operating in the international market have played a very important role in generating employment, with 78.8% of total additional jobs, as shown in table 4-8.

Moreover, the most interesting and relevant question is whether, and in which measures, the educational level and skills level of workers changed. Therefore, for simplicity of exposition, we present the cumulative result by ISCO major group between 2012 and the present (at the date of interview – August 2014).

**Table 4-9 Employment growth by ISCO major group from 2012 to present**

	<b>Absolute value</b>	<b>Percentage change</b>	<b>Percentage contribution to change</b>
Managers	1,844	9.0	3.8
Professionals	3,272	9.5	6.7
Technical and associated professionals	3,620	14.8	7.4
Clerical support workers	2,014	12.9	4.1
Service and sales workers	1,648	8.8	3.4
Skilled agriculture, forestry, and fishery workers	545	6.0	1.1
Craft and related trades workers	30,288	14.3	62.2
Plant and machine operators, and assemblers	1,309	11.0	2.7
Elementary occupations	4,142	7.9	8.5
Total	48,682	12.2	100.0

*N=3,172*

*Source: NEA's ESNS 2014*

During this period, total employment in the overall sectors covered by the survey increased by approximately 48,682 jobs (or a growth rate of 12.2%). The three ISCO major groups grew above average: technical and associated professionals (14.8%), craft and related trades workers (14.3%), and clerical support workers (12.9%). Other ISCO major groups increased with growth rates ranging between 6.0% in skilled agricultural workers and 11.0% in plant and machine operators, as illustrated in table 4-9.

However, when we consider the contribution by each group of occupation to growth in employment (additional demand), the first ranking was led by the craft and related trades workers (62.2%), followed by elementary occupations accounting for 8.5%. The highly skilled occupations, which are composed of managers, professionals, and technicians accounted for 17.9% of total additional jobs, whilst skilled non-manual occupations, including clerical and support workers and service and sales workers, represented 7.5%. Other skilled manual occupations including skilled agricultural, forestry, and fishery workers; and plant and machine operators, and assemblers contributed only 3.8% during the same period.

**Table 4-10 Share of employment growth by broad occupation group and sector from 2012 to the present**

	Highly skilled	Skilled non manual	Skilled manual	Unskilled	Total
<b>Absolute value</b>					
Accommodation	275	576	-1	175	1,025
Construction	677	81	709	791	2,258
Education	947	103	-0	-18	1,033
Finance and insurance	4,721	1,932	157	542	7,351
Food and beverage	969	153	504	1,131	2,756
Garment, footwear, and apparel	200	293	29,448	1,359	31,300
Human health	563	32	6	-8	594
ICT	-88	-29	25	-42	-133
Logistics, warehousing, and transportation	73	323	107	-21	483
Rubber and plastics	397	198	1,187	234	2,015
Total	8,735	3,662	32,143	4,142	48,682
<b>Row percentage</b>					
Accommodation	26.8	56.2	-0.1	17.1	100.0
Construction	30.0	3.6	31.4	35.0	100.0
Education	91.7	10.0	0.0	-1.7	100.0
Finance and insurance	64.2	26.3	2.1	7.4	100.0
Food and beverage	35.1	5.5	18.3	41.0	100.0
Garment, footwear, and apparel	0.6	0.9	94.1	4.3	100.0
Human health	94.9	5.5	1.0	-1.4	100.0
ICT	-65.8	-21.8	19.0	-31.4	100.0
Logistics, warehousing, and transportation	15.2	66.9	22.2	-4.3	100.0
Rubber and plastics	19.7	9.8	58.9	11.6	100.0
Total	17.9	7.5	66.0	8.5	100.0
<b>Column percentage</b>					
Accommodation	3.2	15.7	0.0	4.2	2.1
Construction	7.8	2.2	2.2	19.1	4.6
Education	10.8	2.8	0.0	-0.4	2.1
Finance and insurance	54.0	52.8	0.5	13.1	15.1
Food and beverage	11.1	4.2	1.6	27.3	5.7
Garment, footwear, and apparel	2.3	8.0	91.6	32.8	64.3
Human health	6.5	0.9	0.0	-0.2	1.2
ICT	-1.0	-0.8	0.1	-1.0	-0.3
Logistics, warehousing, and transportation	0.8	8.8	0.3	-0.5	1.0
Rubber and plastics	4.5	5.4	3.7	5.6	4.1
Total	100.0	100.0	100.0	100.0	100.0

N=3,172

Source: NEA's ESNS 2014

Analysis of the composition of employment by broad occupation and sector, as shown in the table 4-10, shows that:

- The majority of employment generated in human health (94.9%), education (91.7%), and finance and insurance (64.2%) were in highly skilled occupations.
- More than half of additional employment created in logistics, warehousing and transportation (66.9%); and accommodation (56.2%) were skilled non-manual occupations.
- 94.1 % of additional jobs in garment and 58.9% in the rubber and plastics sector were concentrated skilled manual occupations.
- Unskilled occupations represented the majority share in total employment growth in the construction (35.0%) and food and beverage sectors (41.0%).

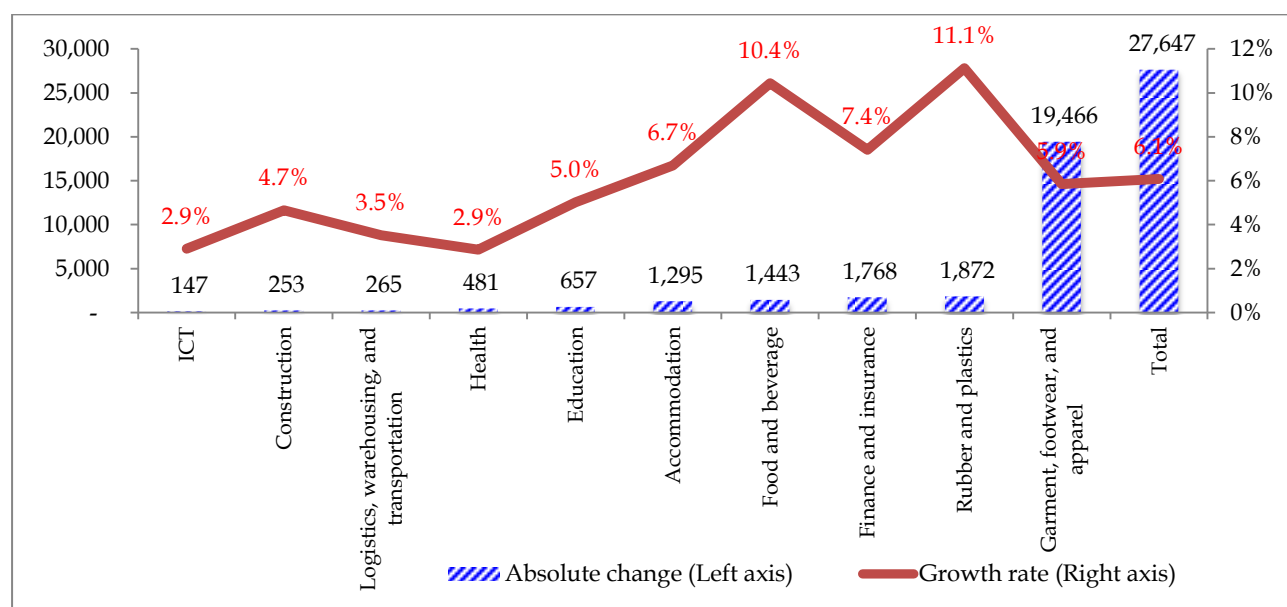
- As shown in the above section, the ICT sector, which reported negative employment, seemed to have significantly reduced the number of employees in highly-skilled occupations (65.8%).

Table 4-10 above also presents the different sectors contributing to the growth of each broad occupation group. The garment, footwear, and apparel sector significantly contributed to employment generation in skilled manual (91.6%) and unskilled occupations (32.8%), whilst the finance and insurance sector was the main driver of employment growth in highly-skilled (54.0%) and skilled non-manual (52.8%) positions.

#### 4.3.2.2. Employment Forecast in 2015

From 2014 to 2015, overall employment is expected to increase with a growth rate of 6.1%, or the creation of about 28,000 additional jobs. The sectors, which will register a double digits employment growth rate, are the rubber and plastics sector with a growth rate of 11.1%, and food and beverage of 10.4%. Given the high capacity utilization among existing staff, the finance and insurance sector will consistently recruit additional staff of 7.4% between 2014 and 2015 in order to respond to the increase of business activity in 2015. The accommodation sector also predicts employment expansion with a growth rate of 6.7%. At the same time, other sectors also estimate an increase in employment with a growth rate of between 5.9% in garment sector and 2.9% in human health and ICT sector.

**Figure 4-19 Employment growth in 2015 by sector**



N=3,172

Source: NEA's ESNS 2014

In terms of absolute growth value, the garment, footwear, and apparel sector reported 19,466 additional recruits or 70.4% of total employment generation in 2015, while other sectors expect to augment employment by between 1,872 in rubber and plastics and a minimum of 147 in the ICT sector, as illustrated in figure 4-19.

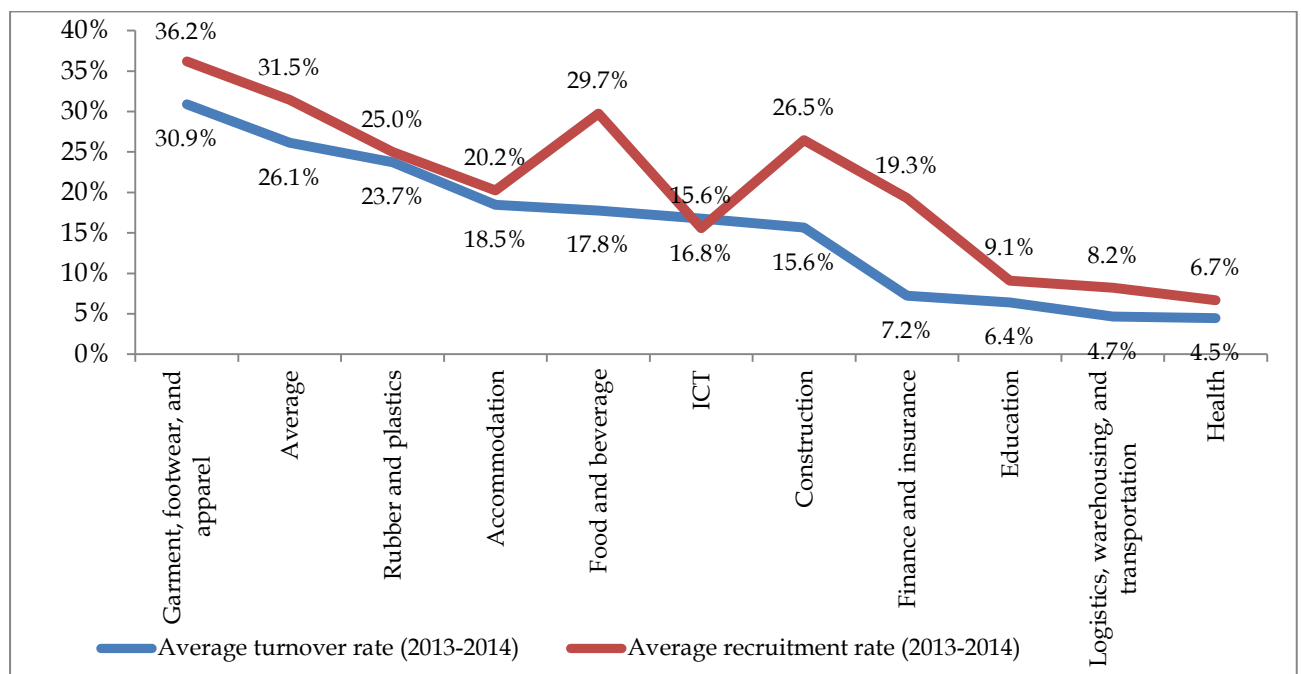
#### 4.3.2.3. Turnover Rate from 2013 to 2015e

Employee turnover is a natural part of business in each sector; however a high employee 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 employees in a workforce that leave during a certain period of time.

According to the survey, the average turnover rate of ten investigated sectors was quite high, at 26.1% during 2013 and 2014. In other words, this means that, on average, one among four employees left an establishment a year during 2013 and 2014, regardless of occupation.

The highest turnover rate (30.9%) was found in the garment, footwear, and apparel sector, followed by rubber and plastics (23.7%). At the same time, there were four sectors in which the turnover rate was fairly high: accommodation (18.5%), food and beverage of (17.8%), ICT (16.8%), and construction (15.6%). Other sectors reported quite low turnover rates, ranging between 7.2% in finance and insurance, and a minimum of 4.5% in the human health sector, as shown in figure 4-20.

**Figure 4-20 Average turnover rate and recruitment rate between 2013 and 2014 by sector**



N=3,172

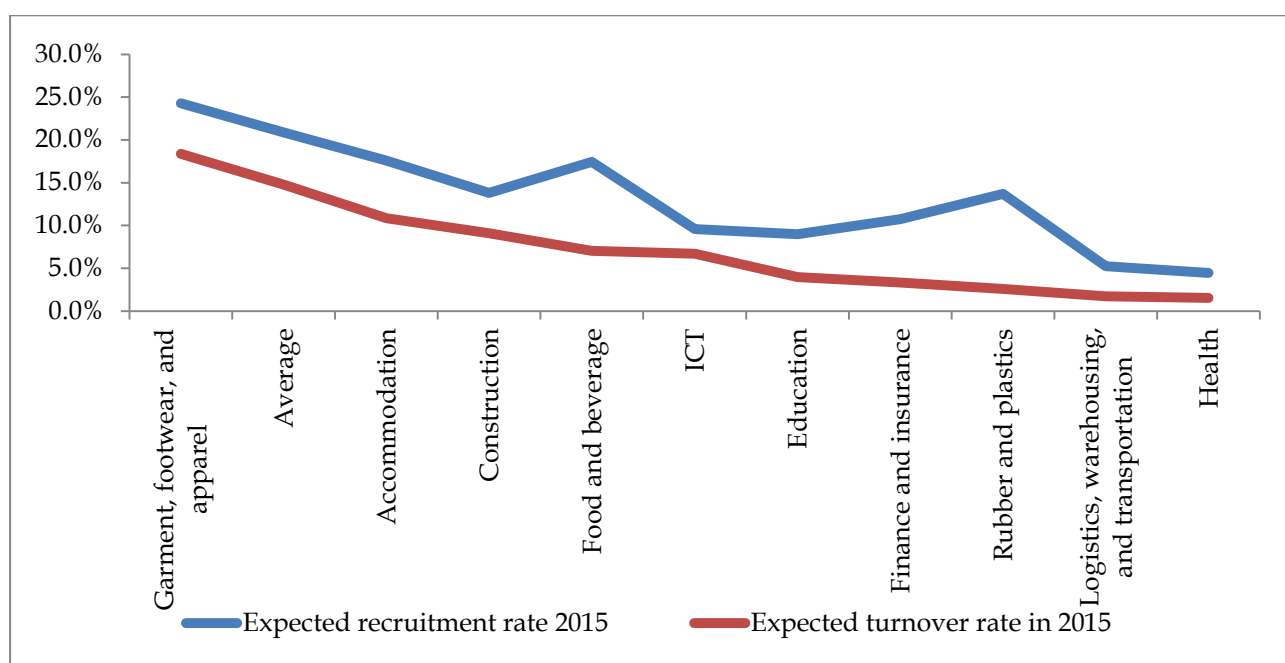
Source: NEA's ESNS 2014

Given the high turnover rate, the establishments, on average, recruited 31.5% of their total employees during 2013 and 2014 in order to replace the employees leaving and to sustain their production or operations. As for turnover, the highest recruitment rate was found in the garment

sector with 36.2%, and the lowest recruitment rate was in human health sector with 6.7%. Notably only the ICT sector had an average recruitment rate that was lower than the turnover rate.<sup>6</sup>

In 2015, the establishments estimated that the number of employees leaving would decrease and on average the turnover rate would drop to 14.8%. The decrease would be found in every sector, particularly in rubber and plastics (2.6% in 2015). This data suggests that the establishment would take action to improve their working conditions or provide more incentives to their employees, although it could also imply that the establishment failed to accurately forecast the turnover rate of employees. At the same time, the establishments expected to recruit about 17.6% of total employees, and the recruitment rate did vary from one sector to another, as shown in figure 4-21.

**Figure 4-21 Expected turnover rate and recruitment rate in 2015 by sector**



N=3,172

Source: NEA's ESNS 2014

#### 4.4. Employers' Perceptions of First Time Jobseekers with at Least Upper Secondary School Education

This section examines the incidence of recruitment, work-preparedness, and skills endowment of first time jobseekers coming directly from upper-secondary school, technical and vocational schools (TVET), and higher education. More specifically, it looks at the proportion of employers that recruited first time jobseekers over the last 12 months prior the survey, and explores their perceptions on the preparedness for work, and lack of skills of new recruits.

<sup>6</sup> The high turnover rate in the ICT sector during 2013 and 2014 could be explained by the bankruptcy of Mfone Company in 2012 (later acquired by CAMGSM company) and the merging between Hello Axiata and Smart Mobile Company in the early of 2013.

#### 4.4.1. Recruitment of First Time Jobseekers

Around 45.5% of the all establishments had hired first time jobseekers coming directly from the education system. The percentage was 51.2% for large establishments, 57.2% for medium-sized establishments, and 35.4% for small establishments. These data suggest that smaller establishments tended to prefer more mature workers with some work experience, while large and medium-sized establishments preferred young workers that could be better trained to the philosophy and practices of the establishment.

About a third of the establishments hired higher education graduates, while only 17.8% hired young people coming from TVET, as shown in table 4.11. Upper-secondary school graduates were hired by only 20.9% of establishments.

**Table 4-11 Share of establishments that hired first time jobseekers in total establishments by educational level and size of establishment**

	10-19	20-99	100+	Total
Upper secondary school	13.7	25.1	34.7	20.9
TVET	12.4	21.1	27.8	17.8
Higher education	23.1	47.6	43.6	34.9
Total	35.4	57.2	51.2	45.5

N=3,172

Source: NEA's ESNS 2014

If the data is narrowed to only the establishments that hired first time jobseekers with at least secondary school education, 76.7% had hired workers with higher education, 39.2% with upper-secondary education, and 46.1% with vocational training. The proportion of establishments that hired higher education graduates is significantly high in medium and large establishments, as shown in in table 4-12.

**Table 4-12 Distribution of establishment that hired first time jobseekers by educational level and size of establishment**

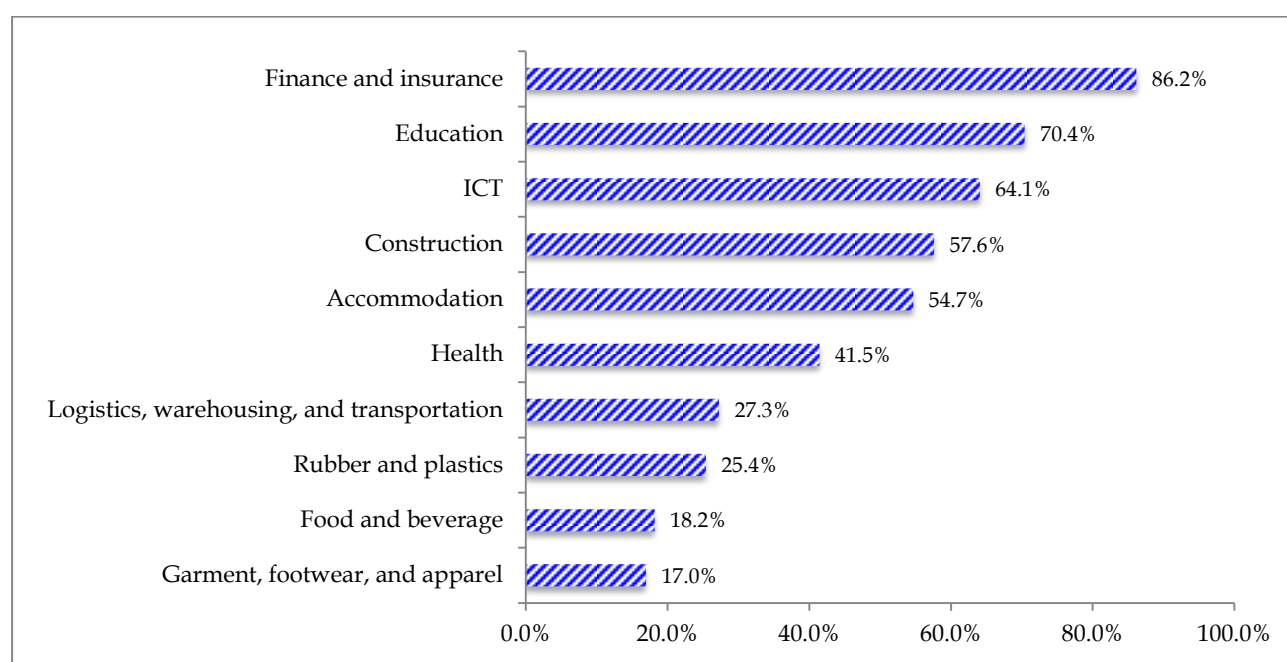
	10-19	20-99	100+	Total
Upper secondary school	38.6	43.8	67.7	46.1
TVET	35.0	36.9	54.2	39.2
Higher education	65.4	83.2	85.2	76.7

N=1,443

Source: NEA's ESNS 2014

By sector, the finance and insurance sector (86.2%) presented the highest percentages of establishments hiring first time jobseekers with at least secondary school education, and was followed by education (70.4%), as shown in figure 4-22. More than half of establishments in the ICT, construction and accommodation sectors had also hired first time job seekers. The percentages of other sectors ranged from 41.5 % for human health to the minimum of 17.0% for the garment sector. Notably, the percentages of the three industrial sectors were much lower and quite similar: 25.4% for rubber and plastics, 18.2% for food and beverage, and 17.0% for garment.

**Figure 4-22 Share of establishments that hired first time jobseekers in total establishments by sector**



N=3,172

Source: NEA's ESNS 2014

Table 4-13 focuses on the distribution of establishments that hired first time jobseekers by educational level and sector. Compared to the average, the proportion of establishments which hired first time jobseekers from upper secondary school is significantly high in the garment, food and beverage, accommodation, and ICT sectors, whilst for TVET graduates; it is in the human health, garment, construction and education sectors. The proportion of establishments that hired first time jobseekers from higher education range from a minimum of 49.8% in human health to 100% in the ICT sector compared to the average level of 76.7%.

**Table 4-13 Distribution of establishments that hired first time jobseekers by educational level and sector**

	Upper secondary school	TVET	Higher education
Accommodation	68.9	37.6	56.7
Construction	31.2	43.3	79.3
Education	39.4	42.0	80.2
Finance and insurance	29.1	21.1	92.8
Food and beverage	80.3	31.8	82.0
Garment, footwear, and apparel	88.9	50.0	83.3
Human health	34.8	89.2	49.8
ICT	56.1	33.3	100.0
Logistics, warehousing, and transportation	32.8	29.9	70.1
Rubber and plastics	37.5	28.2	65.7
<b>Average</b>	<b>46.1</b>	<b>39.2</b>	<b>76.7</b>

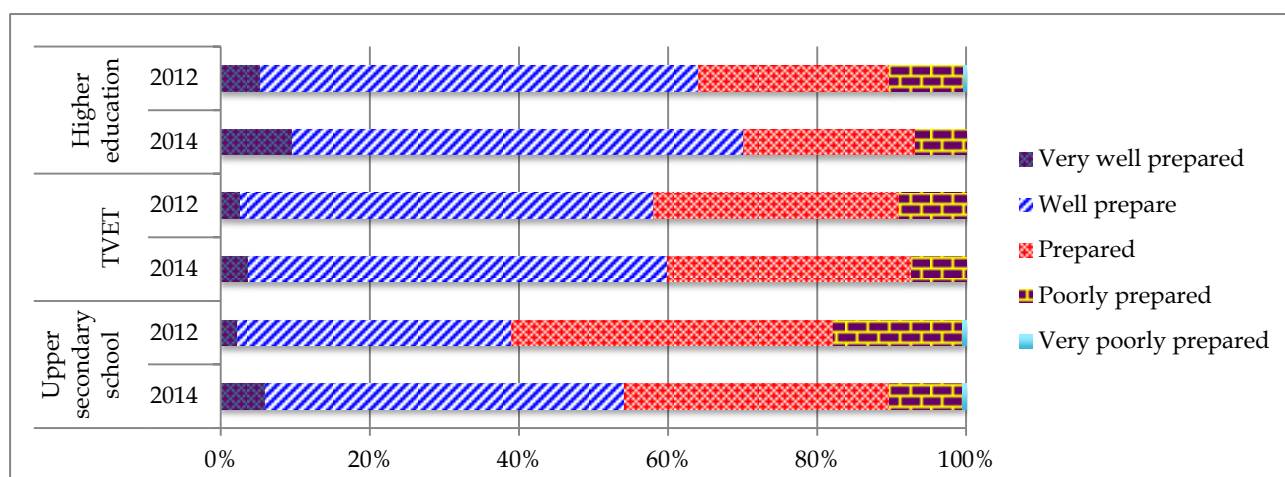
N=1,443

Source: NEA's ESNS 2014

## 4.4.2. Work Preparedness of FTJS

In general, the establishments interviewed expressed positive views on the preparedness of the first time jobseekers they hired. The perception of employers toward the preparedness of first time jobseekers is also slightly improved compared to 2012. Only 10.3% of the establishments considered new entrants from upper secondary school to be poor or very poor, while there were only 7.4% and 6.8% for TVET and higher education students respectively, as shown in figure 4-23.

**Figure 4-23 Employers' perceptions of first time jobseekers by educational level; percentage of establishment**

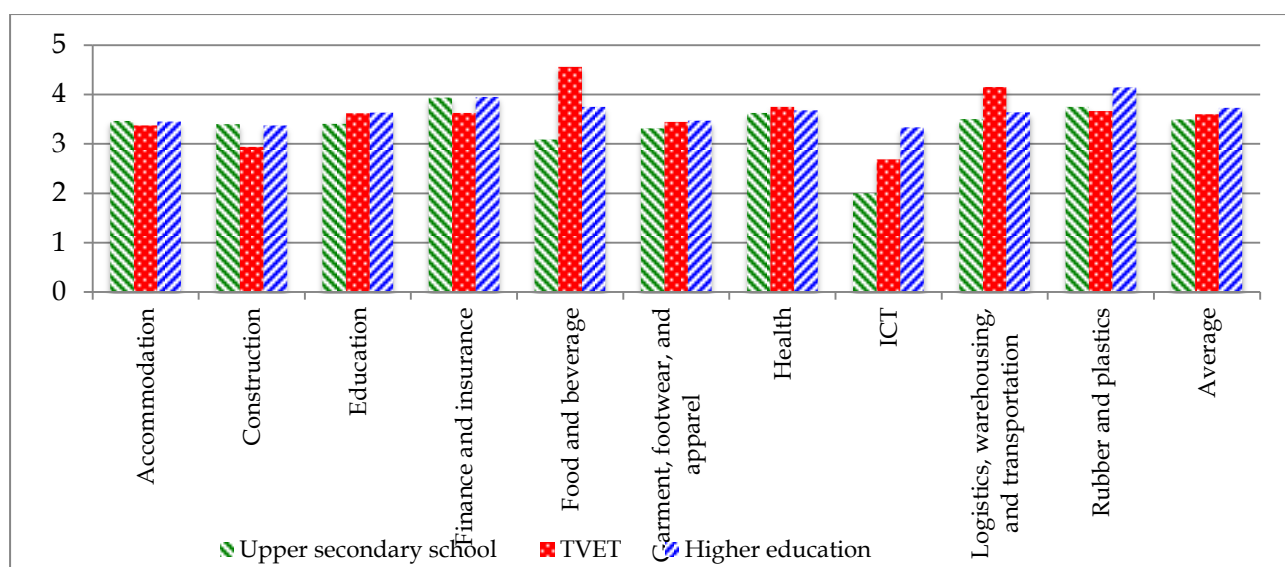


N=1,443

Source: NEA's ESNS 2014 and NEA's ESNS 2012

Figure 4-24 below shows the index of first time jobseekers' as preparedness perceived by employers in different sectors. The higher index means the higher level of preparedness, and vice versa.

**Figure 4-24 Employer's perception of first time jobseekers by educational level and sector**



N=1,443

Source: NEA's ESNS 2014 and NEA's ESNS 2012



All employers made appreciative remarks regarding the preparedness of higher education graduates, particularly in the rubber and plastics, and finance and insurance sectors. Relatively speaking for TVET graduates, only the construction and ICT sector reported negative appraisals, whilst regarding upper secondary students, only the ICT sector provided the worst appraisal.

The establishments that complained about the preparedness of newly hired workers that came directly from the education system concentrated their criticism on three main areas: lack of life experience and maturity; lack of technical or job specific skills; and poor attitude or lack of motivation. However, the degree of complaint depended on the type and level of schooling, as shown in table 4-14. For the first two areas of complaint, data suggest that the problem was more pronounced for graduates from higher education and TVET.

**Table 4-14 Skills and competence lacking among first time jobseekers**

Upper secondary school	Share of establishments	TVET	Share of establishments
Lack of working world/life experience or maturity	68.8	Lack of working world/life experience or maturity	69.2
Poor attitude /personality or lack of motivation	50.0	Technical or job specific skills	53.8
Communication skills	50.0	Poor attitude /personality or lack of motivation	46.2
Foreign language skills	43.8	Foreign language skills	38.5
Lack of common sense	37.5	Communication skills	23.1
Higher education	Share of establishments		
Lack of working world/life experience or maturity	77.8		
Technical or job specific skills	66.7		
Poor attitude /personality or lack of motivation	50.0		
Foreign language skills	44.4		
Communication skills	38.9		

*N=1,443*

*Source: NEA's ESNS 2014 and NEA's ESNS 2012*

## 4.5. Current Recruitment Situation

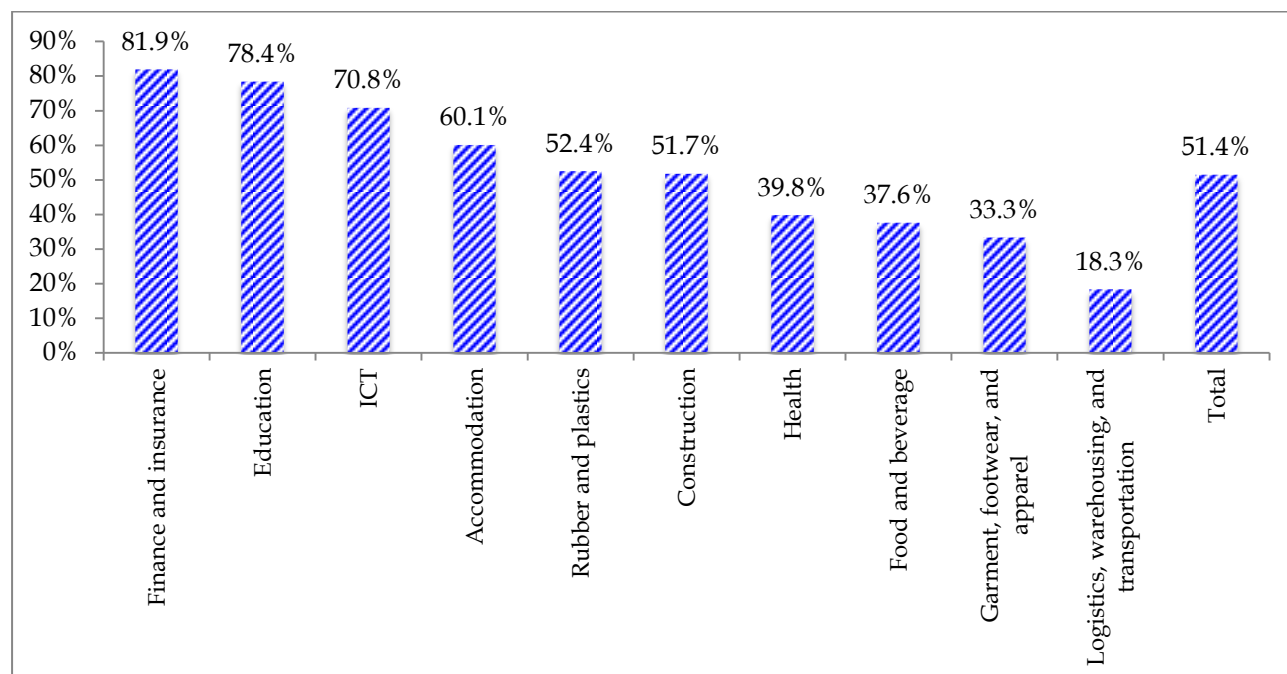
This section discusses the current recruitment situation and defines hard-to-fill vacancies and skills shortages in the Cambodian labour market in the selected sectors. Specifically, it illustrates and evaluates the abilities of the Cambodian labour market to respond to labour demand by employers, and the level of hard-to-fill vacancies. Moreover, it identifies the causes of recruitment difficulties in each ISCO major 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.

### 4.5.1. Incidence and Density of Vacancies

More than half of the establishments (51.4%) declared vacancies, the percentage being directly related to size: 44.8% for small establishments, 62.1% for medium-sized establishments, and 68.8% for large establishments.

Of establishments in the finance and insurance sector, 81.9% declared vacancies, followed by 78.4% in education and 70.8% in ICT. In the other sectors, the percentage of establishments with vacancies ranged between 60.1% for accommodation and a minimum percentage of 18.3% for logistics, warehousing and transportation, as illustrated in figure 4-25. Notably, in the garment sector, the main employment generation sector for Cambodian people, particularly female workers in rural areas, only 33.3% of establishments reported having vacancies.

**Figure 4-25 Share of establishments with at least one vacancy by sector**



N=3,172

Source: NEA's ESNS 2014

Table 4-15 below refers to the distribution of vacancies and the density of vacancies, as measured by the ratio of vacancies to total employment by sector. When we consider vacancies in terms of absolute value, the establishments in the sample were looking for around 8,047 workers, a figure that represented almost 7.0% of their total employment. Around 61.7% of all vacancies were concentrated in just two sectors (garment, and rubber and plastics). The accommodation and finance and insurance sectors were the third and fourth largest share of vacancies with a proportion of 9.2% and 8.5%, while other six sectors accounted only 20.6% of total vacancies.

Considering ranking in terms of density, the food and beverage (12.9%), and construction (12.9%) sectors were in first place, followed by the rubber and plastics sector with a density of 12.2%, and accommodation with 10.2%. Other sectors reported vacancy densities of between 4.4% and 7.0%.

The vacancy density was generally more pronounced in small and medium-sized establishments than in large establishments, as shown in table 4-15. In the accommodation, construction, and finance and insurance sectors the vacancy density is most pronounced in small establishments; and in the education, food and beverage, garment, human health, and rubber and plastics sectors, this situation is marked in medium-sized establishments, whilst in ICT and logistics, vacancy density is most pronounced in large establishments.

**Table 4-15 Distribution of vacancies and vacancy density by sector and size of establishment**

	Distribution of vacancies by sector (%)	Vacancy density (%)			
		10-19	20-99	100+	Total
Accommodation	9.2	15.1	10.0	10.0	10.2
Construction	5.3	28.8	8.8	13.1	12.9
Education	3.6	9.8	12.5	2.4	4.4
Finance and insurance	8.5	14.2	10.2	4.9	7.0
Food and beverage	7.3	6.1	19.9	11.4	12.9
Garment, footwear, and apparel	39.6	4.2	5.8	5.1	5.1
Human health	2.8	6.6	8.1	6.3	6.7
ICT	0.8	-	4.1	7.6	6.7
Logistics, warehousing, and transportation	0.9	0.0	4.2	6.0	5.5
Rubber and plastics	22.1	7.8	17.4	11.8	12.2
Total	100.0	12.7	11.3	6.5	7.0

Source: NEA's ESNS 2014

The survey also pointed out that the available vacancies reported by ten sectors were concentrated in three main ISCO groups: craft and related trades workers (43.9%), elementary occupations (24.7%), and services and sales workers (8.1%). This distribution was influenced by the dominant demand for craft and related trades workers in the garment sector (99.0% of total vacancies), and elementary occupations in the rubber and plastics sector (90.4%).

Concentrating on the analysis of labour demand by ISCO major group and sector, the results were as follows:

- In accommodation, 70% of vacancies were concentrated in services and sales workers, followed by 11.9% in clerical workers and 9.3% in elementary occupations.
- In the construction and garment sectors, craft and related trades workers ranked first with 66.2% and 99.0% of total vacancies in each sector respectively.
- In education, 68.3% of the vacancies were concentrated in professionals, followed by clerical support work, 13.1%.
- In finance and insurance, 37.5% of vacancies were in clerical workers, and 36.9% were in technical and associated professionals.
- In food and beverage, and rubber and plastics, the majority of vacancies were dominated by elementary occupations.
- Almost all vacancies in the human health sector were concentrated in professionals and technical and associated professionals.
- In ICT, vacancies were most pronounced in services and sale workers (57.6%), followed by technical and associated professionals (36.9%).
- Finally, in the logistics sector, 71.4% of vacancies were in plant and machine operators, followed by technical and associated professionals (10.0%) and professionals (8.6%).

**Table 4-16 Distribution of vacancies by ISCO major group and sector**

	ISCO_1	ISCO_2	ISCO_3	ISCO_4	ISCO_5	ISCO_6	ISCO_7	ISCO_8	ISCO_9	Total
Accommodation	1.5	1.6	2.7	11.9	70.0	0.0	1.1	1.9	9.3	100.0
Construction	0.9	13.7	1.9	4.7	5.0	0.0	66.2	6.4	1.2	100.0
Education	4.1	68.3	4.8	13.1	5.5	0.0	0.7	0.0	3.4	100.0
Finance and insurance	2.2	16.2	36.9	37.5	4.7	0.0	0.6	0.3	1.7	100.0
Food and beverage	0.5	4.3	14.9	1.2	4.5	2.1	6.4	13.3	52.7	100.0
Garment, footwear, and apparel	0.0	0.2	0.2	0.1	0.0	0.0	99.0	0.4	0.0	100.0
Human health	0.0	34.2	63.5	2.3	0.0	0.0	0.0	0.0	0.0	100.0
ICT	0.0	4.5	25.8	6.1	57.6	0.0	6.1	0.0	0.0	100.0
Logistics, warehousing, and transportation	0.0	8.6	10.0	0.0	1.4	0.0	2.9	71.4	5.7	100.0
Rubber and plastics	0.1	0.1	0.0	0.3	0.0	7.3	0.0	1.9	90.4	100.0
<b>Total</b>	0.6	6.2	6.8	5.3	8.1	1.7	43.9	2.7	24.7	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

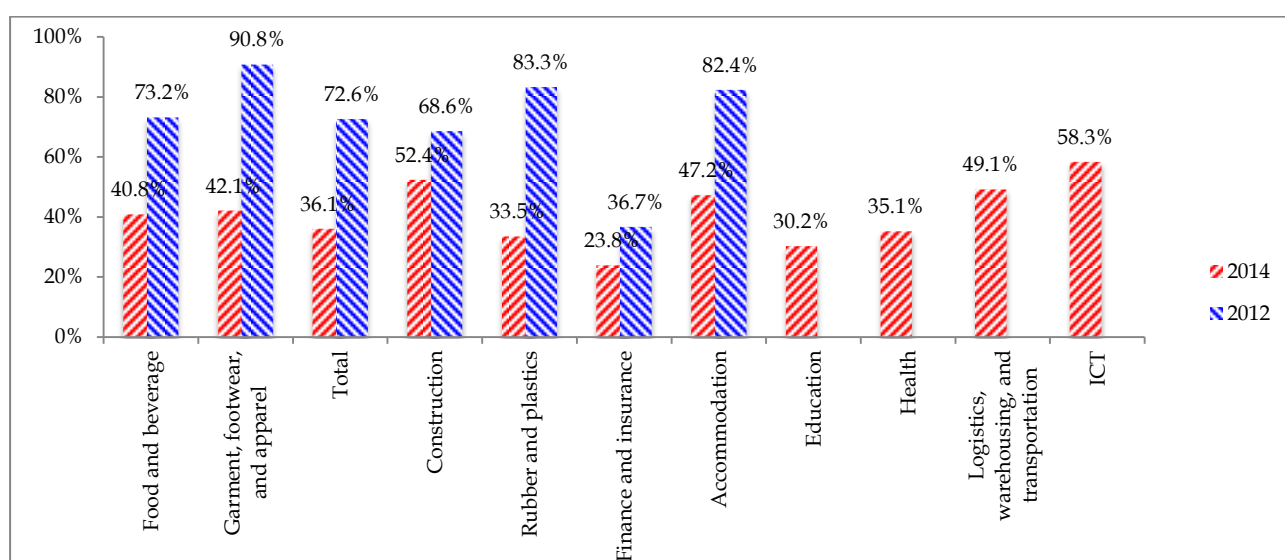
ISCO\_9: Elementary occupations

*Source: NEA's ESNS 2014***4.5.2. Recruitment Difficulties**

The study reported that in 2014 a third of establishments with vacancies experienced recruitment difficulties, and about 23.0% of total available vacancies were considered hard to fill. However, compared to 2012, the recruitment situation was less severe for the six sectors covered by the previous study, as shown in figure 4-26.

In 2014, the proportion of establishments with vacancies that considered all or some of their vacancies to be hard to fill was most pronounced in ICT (58.9%), followed by the logistics (49.1%) and accommodation (42.7%) sectors. The finance and insurance and education sectors were the sectors where the problem of recruitment was less severe.

**Figure 4-26 Share of establishments reporting hard-to-fill vacancies in establishments with vacancies by sector**

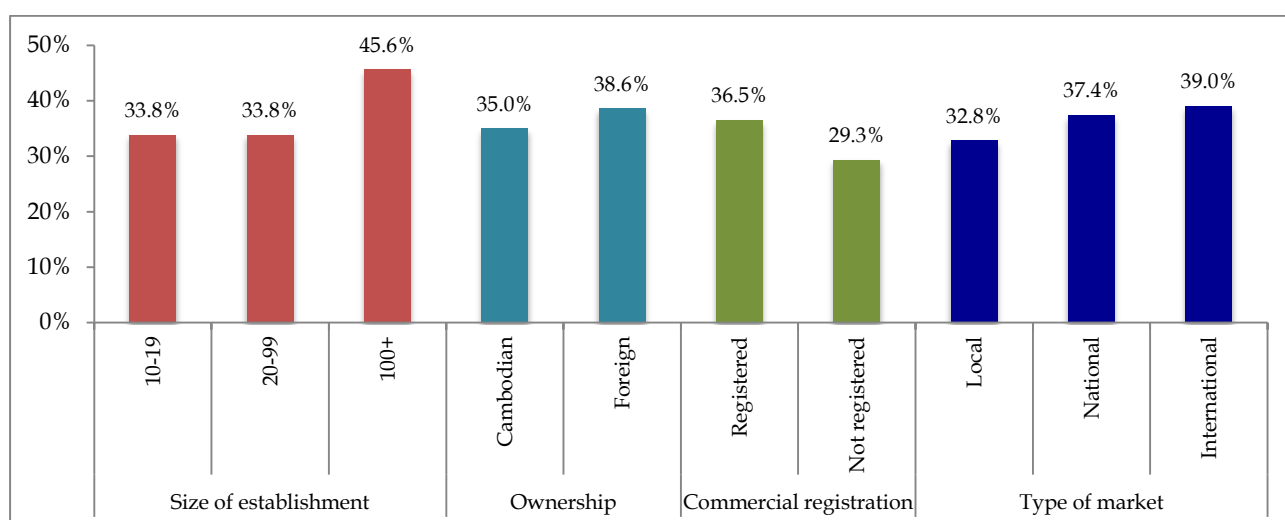


$N_{2014}=1,632$  &  $n_{2012}=517$

Source: NEA's ESNS 2014 and NEA's ESNS 2012

The proportion of establishments facing recruitment difficulties is most pronounced in large establishments, foreign establishments, and registered establishments, as shown in figure 2-27. Moreover, it seemed that the establishments that operated in the national or international market faced more difficulties in recruitment than the establishments that limited their activities to the local market.

**Figure 4-27 Share of the establishments reporting hard-to-fill vacancies in the establishments with vacancies by size of establishment, ownership, commercial registration, and type of market**



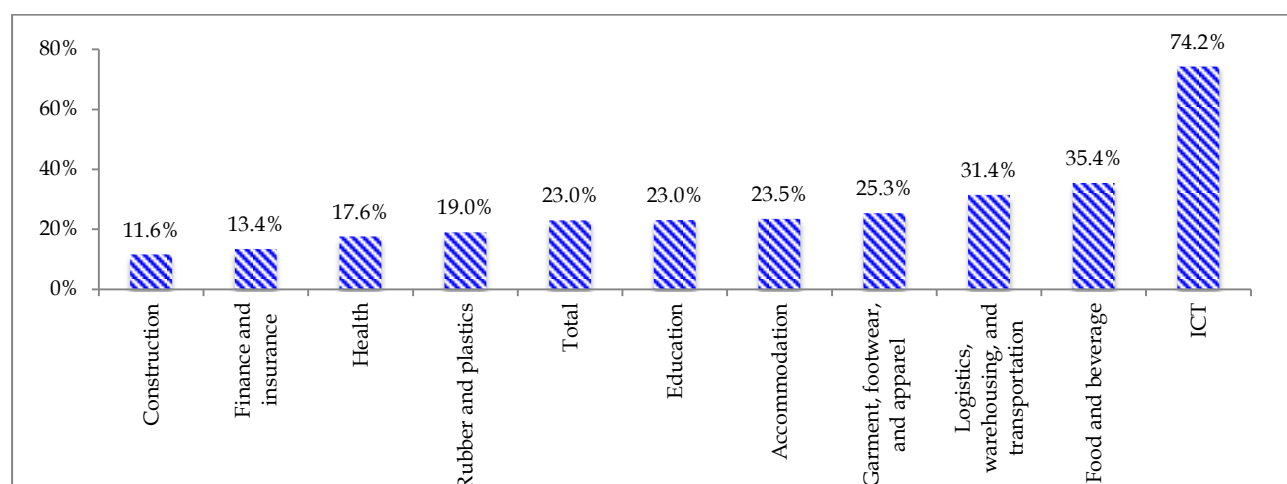
$N=1,632$

Source: NEA's ESNS 2014

The highest percentage of hard-to-fill vacancies was in the ICT sector (74.2%), followed by the food and beverage and logistics sectors with values of 35.4% and 31.4% respectively. In the garment,

accommodation and education sectors, the proportion of hard-to-fill vacancies was just above the total average. The rubber and plastics and human health sectors followed with 19.0% and 17.6%, while the finance and construction sectors seemed to enjoy a much better situation with only 13.4% and 11.6% respectively, as shown in figure 4-28.

**Figure 4-28 Density of hard-to-fill vacancies by sector**



Source: NEA's ESNS 2014

Regarding the distribution of total hard-to-fill vacancies, about 44.0% of total hard-to-fill vacancies were concentrated in craft and related workers, in which the density of hard-to-fill vacancies was about average (22.9%). Elementary occupations ranked second at 22.8%. The percentages of other major groups were all below 9.0%.

However, the vacancies that were more difficult to fill were those that required higher-level skills including managers, professionals, and technicians and associated professionals, as shown in table 4-17. At the same time, vacancies for which the problem was less severe were in skilled agriculture, clerical support workers and elementary occupations.

**Table 4-17 Distribution and densities of hard-to-fill vacancies by ISCO major group**

ISCO Major Group	Percentage of distribution	ISCO Major Group	Density
Craft and related trades workers	44.0%	Managers	47.8%
Elementary occupations	22.8%	Professionals	28.7%
Service and sale workers	8.8%	Technician and associated professionals	28.4%
Technician and associated professionals	8.5%	Plant and machine operators and assemblers	25.2%
Professionals	7.8%	Service and sale workers	25.0%
Clerical support workers	3.7%	Craft and related trades workers	22.9%
Plant and machine operators and assemblers	3.0%	Elementary occupations	21.0%
Managers	1.2%	Clerical support workers	16.2%
Skilled agricultural, forestry, and fishery workers	0.2%	Skilled agricultural, forestry, and fishery workers	2.1%

Source: NEA's ESNS 2014

Analysing the answers by sector as shown in table 4-18, the rubber and plastics, accommodation, food and beverage, construction, finance, and human health sectors had the most difficulty filling their available vacancies for highly-skilled occupations. Skilled non-manual occupations ranked as

the hardest vacancies to find for establishments in the garment and ICT sectors. At the same time, the logistics and education sector were unskilled occupations. The distribution of hard-to-fill vacancies did, however, differ between sectors, as shown in table 4-18.

**Table 4-18 Distribution and densities of hard-to-fill vacancies by broad occupation group and sector**

Density	Highly skilled	Skilled non manual	Skilled manual	Unskilled
Food and beverage	68.4%	27.3%	30.7%	28.3%
Garment, footwear and apparel	60.0%	100.0%	24.7%	-
Rubber and plastics	100.0%	80.0%	12.3%	19.6%
Construction	54.3%	19.0%	2.5%	-
Accommodation	69.6%	23.6%	7.1%	18.8%
Finance and insurance	19.0%	6.9%	-	-
ICT	82.4%	84.2%	75.0%	-
Logistics, warehousing and transportation	76.9%	-	15.4%	100.0%
Education	21.4%	31.5%	-	50.0%
Human health	18.0%	-	-	-
Total	29.4%	21.5%	22.3%	21.0%
Distribution of hard-to-fill vacancies	Highly skilled	Skilled non manual	Skilled manual	Unskilled
Food and beverage	37.5%	4.3%	16.8%	41.3%
Garment, footwear and apparel	1.1%	0.4%	98.5%	0.0%
Rubber and plastics	0.3%	1.2%	5.9%	92.6%
Construction	77.6%	8.2%	14.3%	0.0%
Accommodation	9.2%	82.7%	0.6%	7.5%
Finance and insurance	78.3%	21.7%	0.0%	0.0%
ICT	28.6%	65.3%	6.1%	0.0%
Logistics, warehousing and transportation	45.5%	0.0%	36.4%	18.2%
Education	67.2%	25.4%	0.0%	7.5%
Human health	100.0%	0.0%	0.0%	0.0%
Total	17.5%	12.6%	47.2%	22.8%

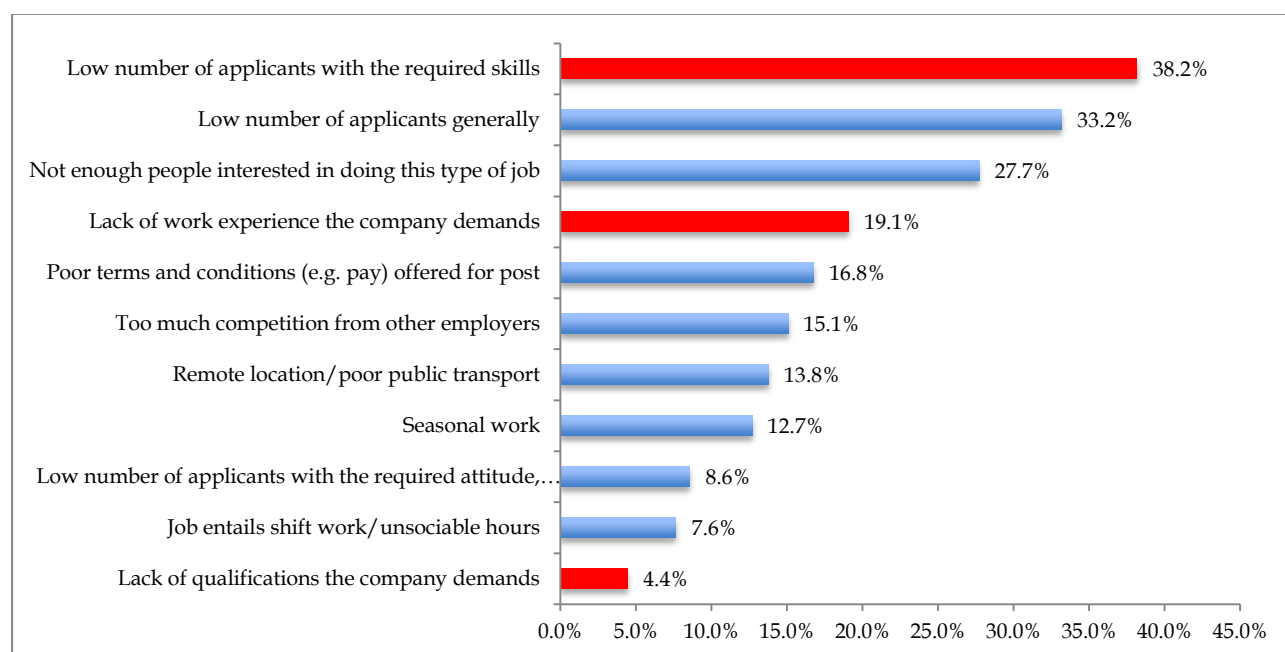
Source: NEA's ESNS 2014

Understanding the causes of hard-to-fill vacancies is an essential precondition to designing and introducing 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 establishments could not clearly indicate a strongly predominant reason. Nevertheless, the most cited reasons, as shown in figure 4-29, indicate that the main reasons for hard-to-fill vacancies tended firstly to be related to the quality of the applicants (lack of skills and work experience) and secondly to the quantity of applicants. There were insufficient applicants and not enough people interested in doing this type of job.

The first reason suggested that the education system has not produced enough skilled workers to respond to the demands of employers. The second reason was slightly related to the most important determinants in the supply of labour, which is wage levels and working conditions, and this is certainly true in a situation where almost everybody has the choice of remaining with their family in an agricultural setting that can provide not only subsistence, but also a degree of economic freedom, or to migrant to neighbouring countries, particularly Thailand.

**Figure 4-29 Causes of hard-to-fill vacancies**



**Note:**

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

Source: NEA's ESNS 2014

The perceived causes of hard-to-fill vacancies vary according to sector, notable different include:

- The low number of applicants with the required skills was more likely to cause hard-to-fill vacancies in the construction; finance and insurance; food and beverage; human health; and logistics sectors.
- Lack of work experience demanded by the company was particularly likely to cause hard-to-fill vacancies in the education and ICT sectors.
- More than a third (42.2%) of hard-to-fill vacancies in the accommodation sector were caused by not enough people being interested in doing this type of job, and just under half (44.6%) in the garment sector by the low number of applicants generally.
- Seasonal works, remote location/unsocial hours, and the low number of applicants generally were more likely to create issues with hard-to-fill vacancies in the rubber and plastics sector.



**Table 4-19 Causes of hard-to-fill vacancies by sector**

	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	22.5	6.1	19.4	16.3	14.4	21.9	0.0	0.0	0.0	0.3
Not enough people interested in doing this type of job	42.2	4.1	13.4	3.3	5.3	40.3	12.8	4.1	0.0	23.7
Poor terms and conditions (e.g. pay) offered for post	18.5	20.4	7.5	7.6	14.9	5.3	12.8	0.0	13.6	51.3
Low number of applicants with the required skills	14.5	61.2	25.4	65.2	63.9	38.7	87.2	4.1	77.3	21.7
Low number of applicants with the required attitude, motivation or personality	31.2	0.0	16.4	25.0	9.6	0.0	10.3	71.4	50.0	0.0
Low number of applicants generally	26.0	0.0	7.5	3.3	20.7	44.6	0.0	12.2	0.0	44.5
Lack of work experience the company demands	37.6	20.4	31.3	42.4	38.0	2.1	5.1	93.9	4.5	21.4
Lack of qualifications the company demands	17.3	0.0	9.0	8.7	5.8	0.6	25.6	16.3	0.0	0.9
Job entails shift work/unsociable hours	17.3	0.0	0.0	0.0	5.3	12.4	0.0	0.0	0.0	0.0
Seasonal work	0.0	4.1	0.0	0.0	2.9	7.4	0.0	0.0	27.3	47.5
Remote location/poor public transport	27.7	4.1	9.0	28.3	9.1	0.0	7.7	0.0	0.0	44.5

**Note:**

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

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

Source: NEA's ESNS 2014

There were some differences in the different types of ISCO major group. The major differences were:

- The low number of applicants with the required skills and lack of work experience the company demanded were particular issues in managers, professionals, and technical and associated professionals, as shown in table 4-19.
- Hard-to-fill vacancies in clerical support workers were more likely to be caused by not enough people being interested in the job (44.9%) and a low number of people with the required skills (42.0%).
- The main factor in recruitment difficulties in service and sales workers was due to the lack of work experience among the applicants (52.1%).
- The low quantity of applicants, cited as the low number of applicants in general (44.3%), and not enough number people being interested in doing this type of job (41.0%) was an issue in hard-to-fill vacancies in craft and related trade workers.
- Finally the main causes of hard-to-fill vacancies in plant and machine operators and assemblers tend to be related to the poor terms and conditions offered for the positions. This is similar to the elementary occupations (where this factor was cited for 42.1%),

however the low number of applicants generally (40.0%) was more likely to be one of main causes of a position being hard to fill in this occupation.

**Table 4-20 Causes of hard-to-fill vacancies by ISCO major group**

	ISCO_1	ISCO_2	ISCO_3	ISCO_4	ISCO_5	ISCO_7	ISCO_8	ISCO_9
Too much competition from other employers	22.7	14.7	1.9	10.1	23.9	21.3	0.0	7.1
Not enough people interested in doing this type of job	22.7	4.2	2.5	44.9	28.2	41.0	20.0	17.1
Poor terms and conditions (e.g. pay) offered for post	0.0	14.7	5.1	5.8	18.4	3.8	69.1	42.1
Low number of applicants with the required skills	50.0	45.5	65.0	42.0	15.3	38.4	36.4	33.3
Low number of applicants with the required attitude, motivation or personality	31.8	14.7	14.6	11.6	40.5	0.4	30.9	3.1
Low number of applicants generally	18.2	11.2	2.5	36.2	13.5	44.3	18.2	40.0
Lack of work experience the company demands	45.5	42.7	44.6	27.5	52.1	1.0	50.9	16.2
Lack of qualifications the company demands	22.7	22.4	10.8	4.3	12.3	0.6	0.0	0.0
Poor career progression/lack of prospects	18.2	1.4	0.0	0.0	0.0	0.0	1.8	0.0
Job entails shift work/unsociable hours	0.0	0.7	0.0	36.2	2.5	13.2	7.3	0.0
Seasonal work	0.0	1.4	0.0	0.0	0.0	7.4	3.6	39.8
Remote location/poor public transport	22.7	11.2	23.6	0.0	23.3	1.0	0.0	35.7

**Note:**

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

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

Source: NEA's ESNS 2014

### 4.5.3. Skills Shortages

As discussed in the session above, the recruitment difficulties are commonly caused by issues relating to the quality of applicants, the quantity of applicants and other contextual factors including issues with the role, organization or the establishment's recruitment systems.

Again, 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", as indicated in the above figure 2-1.

#### 4.5.3.1. Incidence and Density of Skills Shortages

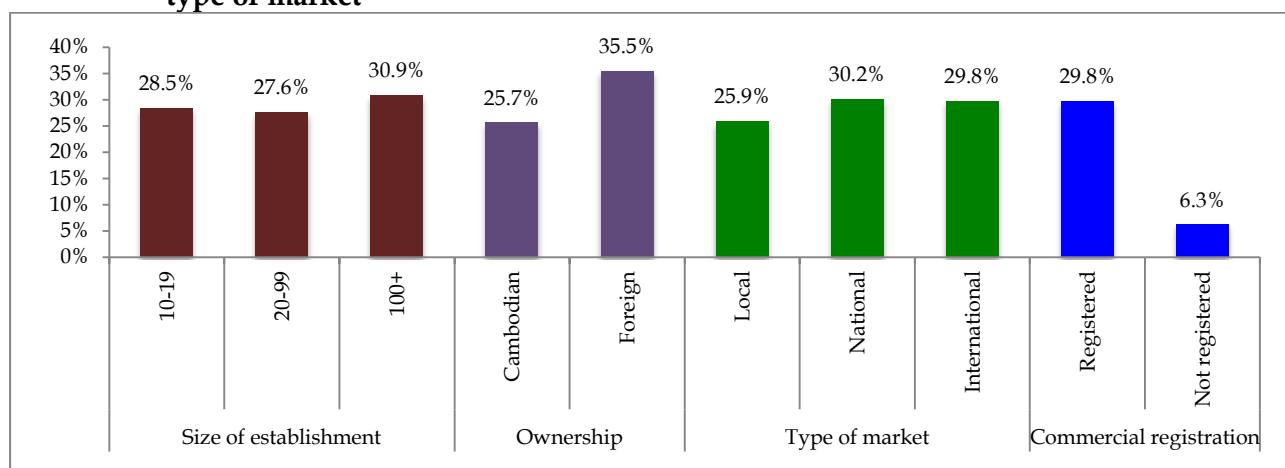
On the basis of the previous classification of hard-to-fill vacancies, the survey showed that 28.6% of establishments with vacancies were affected by skills shortages, accounting for 11.8% of the total available vacancies. The situation is likely to improve compared to 2012, when about a third of establishment with vacancies were suffering from skills shortages and around a quarter of total vacancies were hard to fill due to skills shortages.

By size of establishment, the proportion of large establishments with vacancies that were caused by skills shortage was slightly higher than the average level, where 30.9% of total large establishments with vacancies suffered by skills shortages. As a proportion of vacancies, it must be

underlined that skills shortage vacancies were concentrated in large establishments (59.9%), which were more likely to be organized to measure the problem, while the minimum incidence affected small-sized establishments (9.8%).

In addition to this, foreign establishments were more likely to report the issue of skills shortages than Cambodian establishments. The establishments operating on the national (30.2%) and international (29.8%) market were more likely to find their vacancies hard to fill due to skills shortages. However, unregistered establishments (only 6.3%) were less likely to report skills shortage vacancies because they were family owned businesses and lacked the organization to measure this problem.

**Figure 4-30 Share of establishments with skills shortage vacancies in establishments with at least one vacancy by size of establishment, ownership, commercial registration, and type of market**



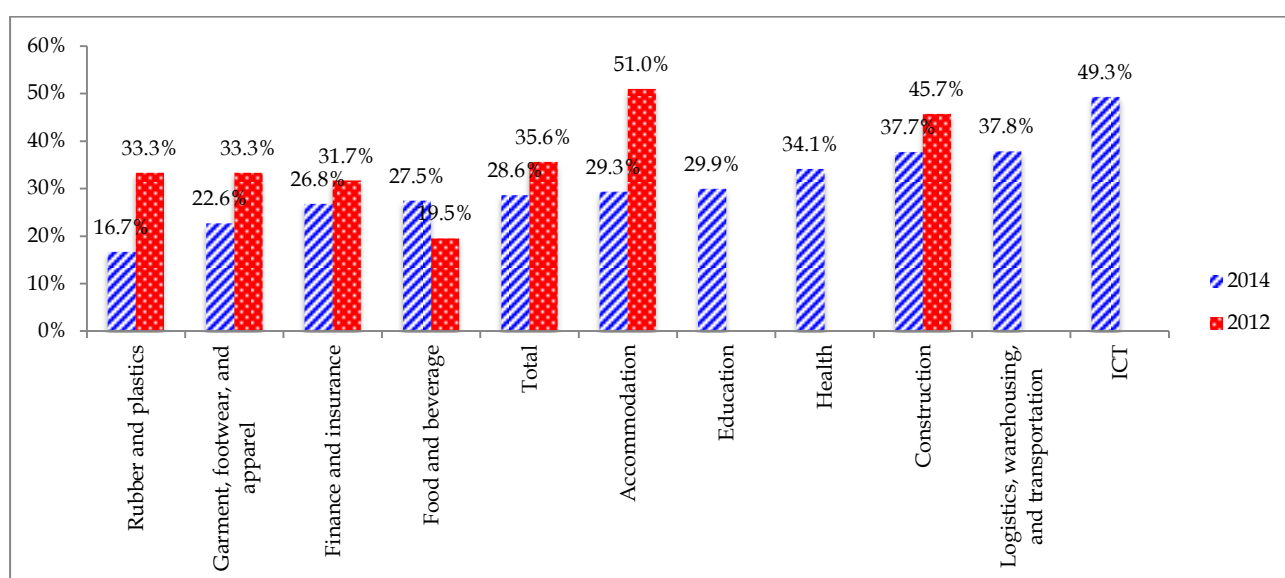
N=1,632

Source: NEA's ESNS 2014

The sectors that were less affected by the presence of skill-shortage vacancies were rubber and plastics sector (16.7%), followed by garments (22.6%), and finance and insurance (26.8%), as shown in figure 4-31. The sectors most likely to report skills shortage vacancies were the ICT (49.3%), logistics (37.8%), and construction (37.7%) sector, while in the other sectors the proportion of establishments affected by skills shortages ranged between 27.5% in food and beverage and 34.1% in human health, as shown in figure 4-31.

Compared to the previous study, it was only in the food and beverage sector that the proportion of establishments with vacancies affected by the skills shortages increased from 19.5% to 27.5%. In the other sectors, by contrast, the proportion of establishments affected by the skills shortages decreased substantially between the maximum of 21.7 percentage points in accommodation to 4.9 percentage points in the finance and insurance sector, as indicated in figure 4-31.

**Figure 4-31 Share of establishments with skills shortage vacancies in establishments with vacancies by sector**

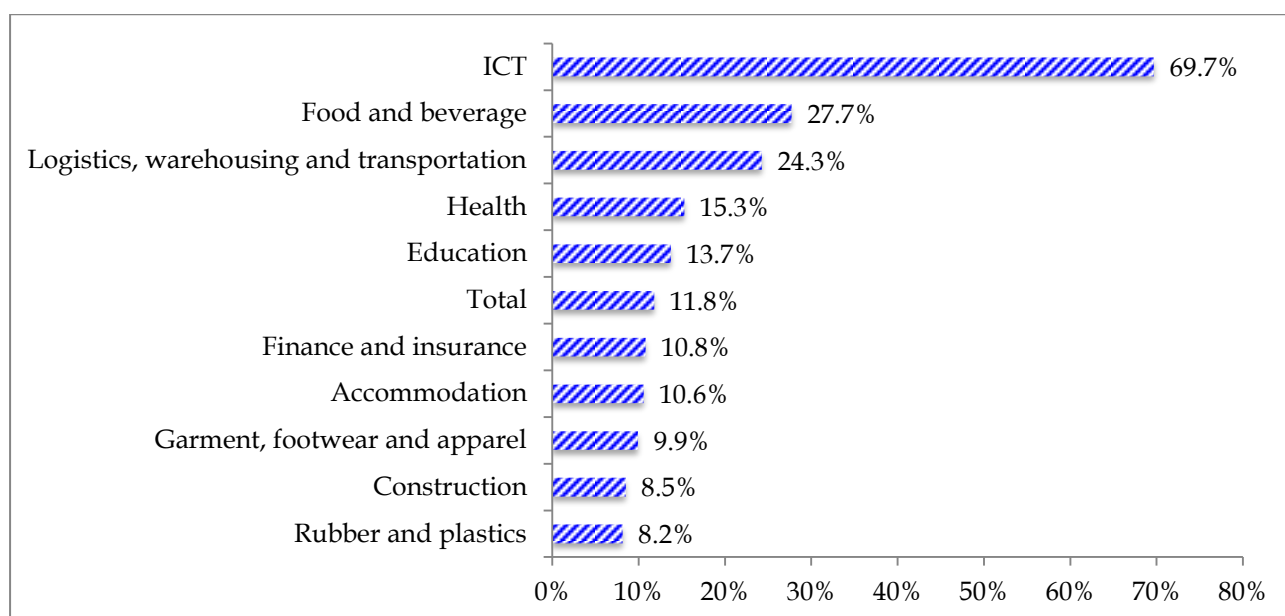


$N_{2014}=1,632$  &  $n_{2012}=104$

Source: NEA's ESNS 2014

In terms of density of vacancies, the highest density of skills shortages vacancies was seen in the ICT sector where above two-thirds (69.6%) of all vacancies were skills shortage vacancies (compared with 11.8% on average). The other sectors most affected by a high density of skills shortages vacancies were in food and beverage (27.7%), followed by logistics (24.3%), human health (15.3%) and education (13.7%). At the same time, the density of skills shortages vacancies in other sectors ranged from 10.8% in the finance and insurance sector to 8.2% in the rubber and plastics sector.

**Figure 4-32 Density of skills shortage vacancies by sector**



Source: NEA's ESNS 2014

The greatest volume of skills shortages vacancies was reported in craft and related trade workers, elementary occupations, and technician and associated professionals. Together these accounted for two-thirds (68.4%) of all skills shortages vacancies at the time of the survey. However elementary and craft and related trade workers showed the least density, with 10.4% of vacancies in elementary and 8.8% of vacancies in craft and related trade workers. Managers, in contrast, showed the greatest density, with over two-fifths (43.5%) of vacancies for managers being skills shortages vacancies, as shown in table 4-21.

**Table 4-21 Skills shortage vacancies: Distribution and densities by ISCO major occupation**

ISCO Major Group	Percentage of distribution	ISCO Major Group	Density
Craft and related trades workers	32.9	Managers	43.5
Elementary occupations	21.8	Technician and associated professionals	23.5
Technician and associated professionals	13.7	Professionals	23.3
Professionals	12.2	Service and sale workers	15.1
Service and sale workers	10.3	Plant and machine operators and assemblers	13.8
Clerical support workers	3.8	Elementary occupations	10.4
Plant and machine operators and assemblers	3.2	Craft and related trades workers	8.8
Managers	2.1	Clerical support workers	8.4

*Source: NEA's ESNS 2014*

The analysis of skills shortage vacancies by broad ISCO major group and sector showed that:

- The sectors most affected by a high density of skills shortages in highly skilled occupations were rubber and plastics (100.0%), ICT (82.4%), logistics (76.9%), food and beverage (57.9%), and accommodation (56.5%). At the same time, the garment, ICT, and rubber and plastics sectors also suffered from a high density of skilled non-manual occupations. The density for skilled manual occupations was quite modest in each sector, with an average value of 8.9%, while in the logistics sector alone all available unskilled vacancies were considered skilled shortages vacancies.
- As a proportion of skills shortages vacancies in highly skilled occupations, skills shortage vacancies were concentrated in food and beverage, finance and insurance, and education. Together these accounted for three-fifths (60.2%) of all skills shortages in highly skilled occupations. For skilled non-manual occupations, 71.6% were concentrated in ICT and in the accommodation sector, while 90.6 of skilled shortage vacancies in skilled manual occupations were in the garment sector, and 66.2% of skilled shortage vacancies in unskilled occupations were in the rubber and plastics sector.

**Table 4-22 Distribution and densities of skills shortage vacancies by broad occupation group and sector**

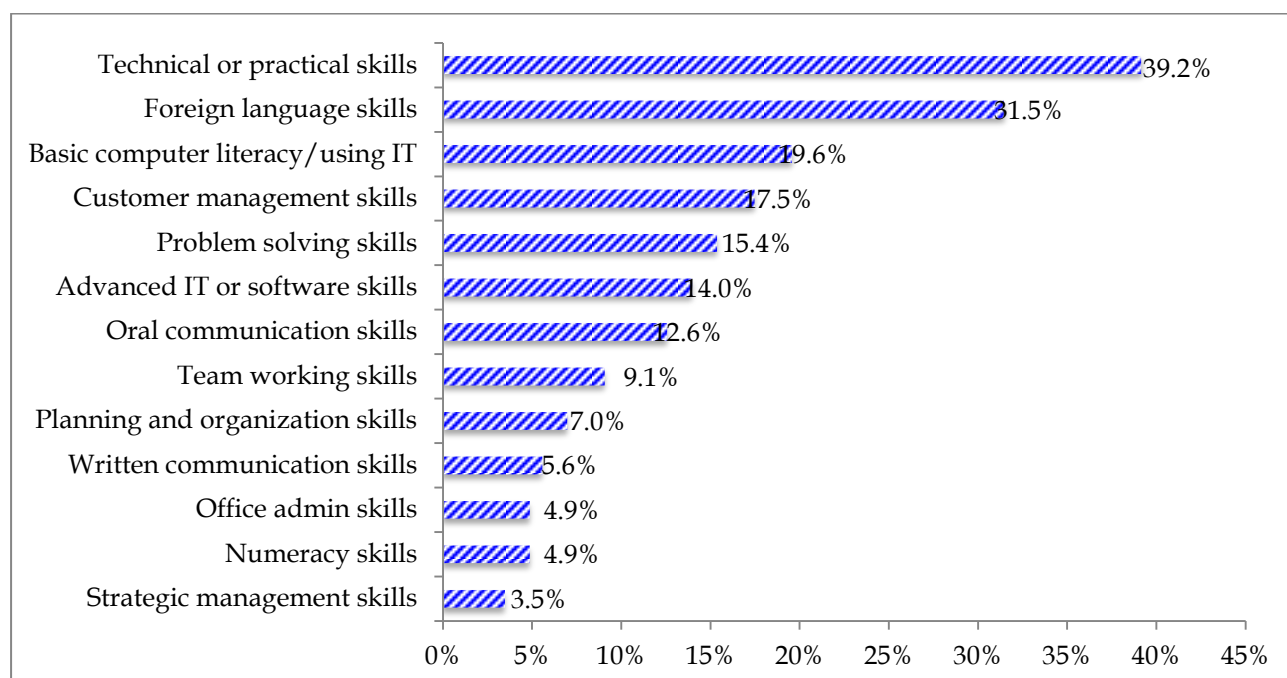
Density	Highly skilled	Skilled non manual	Skilled manual	Unskilled	Total
Accommodation	56.5%	10.6%	0.0%	1.4%	10.6%
Construction	42.9%	9.5%	1.4%	-	8.5%
Education	16.7%	9.3%	-	0.0%	13.7%
Finance and insurance	15.6%	5.9%	-	-	10.8%
Food and beverage	57.9%	21.2%	21.9%	21.4%	27.7%
Garment, footwear and apparel	26.7%	100.0%	9.6%	-	9.9%
Human health	15.7%	-	-	-	15.3%
ICT	82.4%	84.2%	0.0%	-	69.7%
Logistics, warehousing and transportation	76.9%	-	5.8%	100.0%	24.3%
Rubber and plastics	100.0%	80.0%	0.0%	8.6%	8.2%
Total	25.1%	12.8%	8.9%	10.4%	11.8%
<b>Distribution of skills shortages (column percentage)</b>					
Accommodation	4.9%	47.8%	0.0%	0.5%	8.2%
Construction	11.3%	1.5%	1.2%	0.0%	3.8%
Education	13.2%	3.7%	0.0%	0.0%	4.2%
Finance and insurance	22.2%	12.7%	0.0%	0.0%	8.0%
Food and beverage	24.8%	5.2%	7.3%	31.4%	17.2%
Garment, footwear and apparel	1.5%	2.2%	90.6%	0.0%	33.4%
Human health	12.8%	0.0%	0.0%	0.0%	3.6%
ICT	5.3%	23.9%	0.0%	0.0%	4.8%
Logistics, warehousing and transportation	3.8%	0.0%	0.9%	1.9%	1.8%
Rubber and plastics	0.4%	3.0%	0.0%	66.2%	15.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Distribution of skills shortages (row percentage)</b>					
Accommodation	16.7%	82.1%	0.0%	1.3%	100.0%
Construction	83.3%	5.6%	11.1%	0.0%	100.0%
Education	87.5%	12.5%	0.0%	0.0%	100.0%
Finance and insurance	77.6%	22.4%	0.0%	0.0%	100.0%
Food and beverage	40.5%	4.3%	15.3%	39.9%	100.0%
Garment, footwear and apparel	1.3%	0.9%	97.8%	0.0%	100.0%
Human health	100.0%	0.0%	0.0%	0.0%	100.0%
ICT	30.4%	69.6%	0.0%	0.0%	100.0%
Logistics, warehousing and transportation	58.8%	0.0%	17.6%	23.5%	100.0%
Rubber and plastics	0.7%	2.8%	0.0%	96.5%	100.0%
Total	28.0%	14.1%	36.0%	21.8%	100.0%

Source: NEA's ESNS 2014

#### 4.5.3.2. Skills Lacking Among Jobseekers

The survey also tried to identify which skills were lacking in jobseekers. The three most common skills lacking, were, as shown in figure 4-33: technical or practical skills, language skills, and basic computer literacy/ability to use IT.

**Figure 4-33 Skills shortages**



**Note:**

- The figures show the proportion of skills shortages vacancies reporting each factor reported by employers.
- The sum of percentages exceeds 100% because of multiples choices (up to the most five skills lacking).

Source: NEA's ESNS 2014

The top skills lacking among jobseekers by ISCO major group (A detailed analysis is shown in table 4-23):

- **Managers** lack: (i) technical or practical skills, (ii) team working skills, (iii) problem solving skills;
- **Professionals** lack: (i) technical or practical skills, (ii) foreign language skills, (iii) advanced IT or software skills;
- **Technicians and associated professionals** lack: (i) technical or practical skills, (ii) foreign language skills, (iii) problem solving skills;
- **Clerical support workers** lack: (i) foreign language skills, (ii) basic computer literacy/using IT, (iii) oral communication skills;
- **Service and sales workers** lack: (i) foreign language skills, (ii) technical or practical skills, (iii) oral communication skills, (iv) customer management skills;
- **Craft and related trades workers** lack: (i) technical or practical skills, (ii) customer management skills, (iii) oral communication skills;
- **Plant and machine operators, and assemblers** lack: (i) technical or practical skills, (ii) foreign language skills; and
- **Elementary occupations** lack: (i) technical or practical skills, (ii) team working skills.

**Table 4-23 Skills shortages by ISCO major group**

Managers			Professionals		
Technical or practical skills	●	66.7	Technical or practical skills	●	43.5
Team working skills	●	33.3	Foreign language skills	●	26.1
Problem solving skills	●	33.3	Advanced IT or software skills	●	21.7
Basic computer literacy/using IT	●	22.2	Basic computer literacy/using IT	●	19.6
Planning and organization skills	●	22.2	Customer management skills	●	13.0
Advanced IT or software skills	●	22.2	Planning and organization skills	●	8.7
Technicians and associate professionals			Clerical support workers		
Technical or practical skills	●	37.5	Foreign language skills	●	42.9
Foreign language skills	●	21.9	Basic computer literacy/using IT	●	35.7
Problem solving skills	●	18.8	Oral communication skills	●	28.6
Basic computer literacy/using IT	●	15.6	Customer management skills	●	21.4
Customer management skills	●	12.5	Office admin skills	●	21.4
Advanced IT or software skills	●	9.4	Craft and related trades workers		
Oral communication skills	●	9.4	Technical or practical skills	●	55.6
Service and sales workers			Customer management skills	●	44.4
Foreign language skills	●	57.9	Oral communication skills	●	33.3
Technical or practical skills	●	42.1	Team working skills	●	22.2
Oral communication skills	●	26.3	Elementary occupations		
Customer management skills	●	26.3	Technical or practical skills	●	85.7
Problem solving skills	●	21.1	Team working skills	●	28.6
Plant and machine operators, and assemblers					
Technical or practical skills	●	71.4			
Foreign language skills	●	57.1			
Basic computer literacy/using IT	●	28.6			
Oral communication skills	●	28.6			
Written communication skills	●	28.6			

**Note:**

- The figures show the proportion of skills shortages vacancies reporting each factor reported by employers.
- The sum of percentages exceeds 100% because of multiples choices (up to the most five skills lacking).

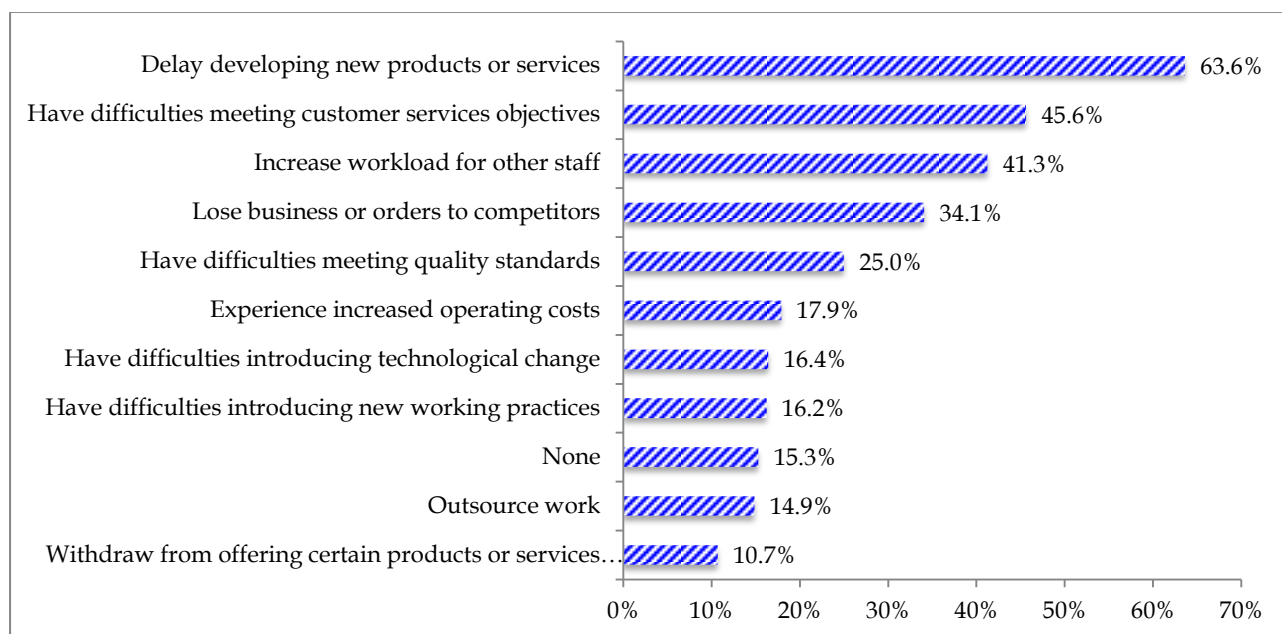
Source: NEA's ESNS 2014

### 4.5.3.3. Impacts of Skills Shortages and Measures Taken to Remedy the Problem

The establishments largely agreed on the main consequences of the difficulties in filling vacancies. Almost two-thirds (63.6%) indicated that this problem caused the delay of new product development, almost half reported having difficulties meeting customer service demands, and above two-fifths of establishments experienced an increase of workload for other staff, as shown in figure 4-34. This data concluded that the problem, particularly skills shortages at the macro level, could potentially lead to deterioration in overall competitiveness and lower productivity, as well as preventing investment in and developing the skills intensive sector.



**Figure 4-34 Impacts of hard-to-fill vacancies**



Source: NEA's ESNS 2014

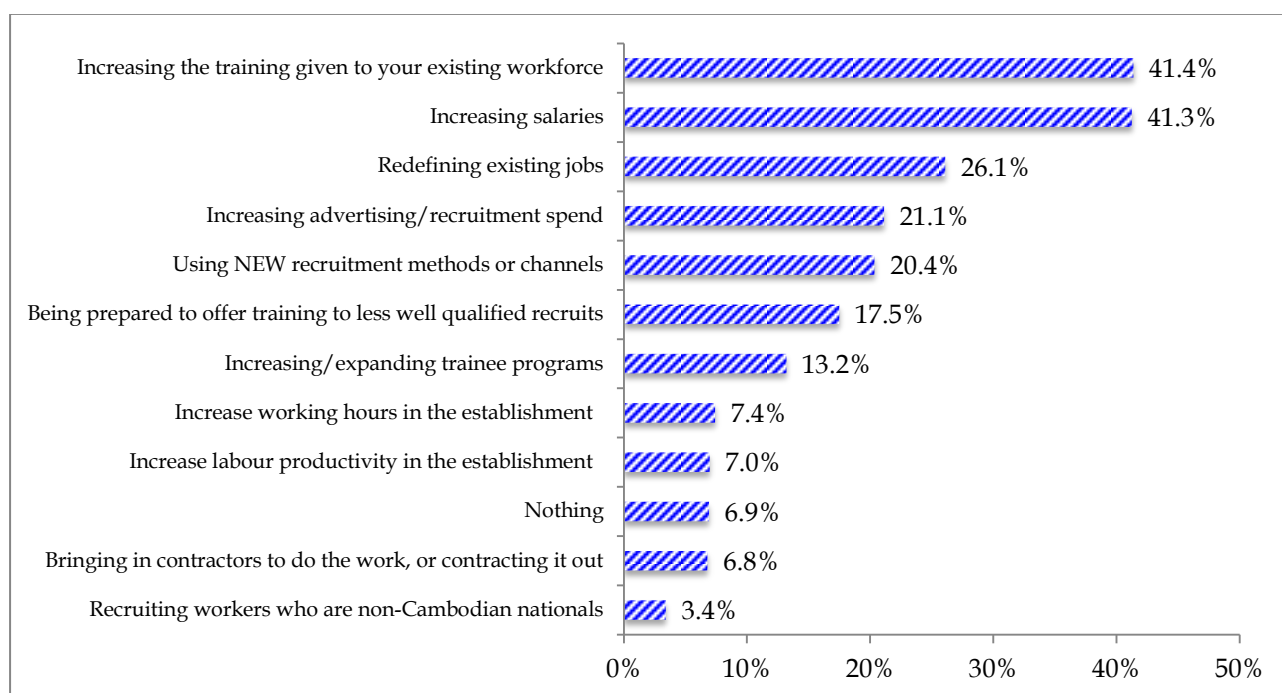
The final issue we explore in this session is how establishments with hard-to-fill vacancies respond to them. Figure 4-35 shows a ranking of the relevant array of measures, which the establishments had adopted to try to fill their vacancies. The two most common measures were to: (i) increase the training given to the existing workforce, and (ii) salary (both two-fifths of establishments).

Specifically, increasing the training given to the existing staff is the particular measure adopted by establishments with hard-to-fill vacancies in the education, ICT, human health and construction sectors, where the majority of hard-to-fill vacancies were concentrated in highly skill and skilled non-manual occupations. From the point of view of the training system, this is a very interesting result, as it implies that employers are willing to invest in workforce skills development.

Raising wages is the dominant measure taken by the establishments affected by the problem of hard-to-fill vacancies in the rubber and plastics, accommodation, construction, and garment sectors. 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.

In addition to this, establishments with hard-to-fill vacancies had also adopted other measures, which were directed towards recruitment and to reducing the need for new employees. Those types of measures included redefining existing jobs (26.1%), increasing advertisement and recruitment spend (21.1%), using new recruitment methods or channels (20.4%), and so on.

**Figure 4-35 Measures taken to address hard-to-fill vacancies**



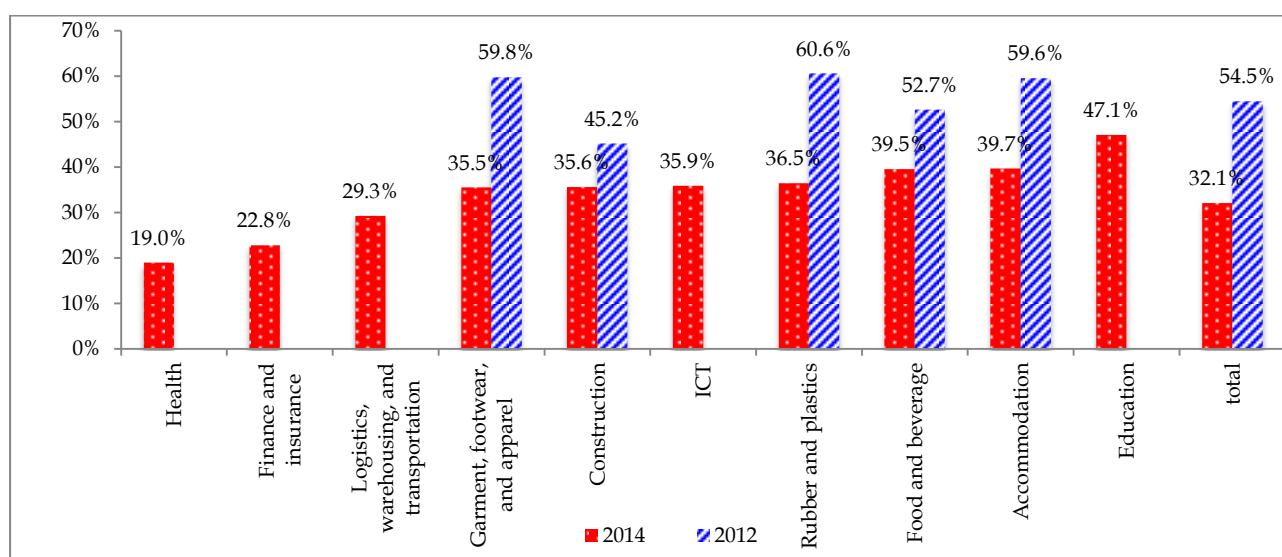
Source: NEA's ESNS 2014

## 4.6. Skills Gaps

### 4.6.1. Incidence and Density of Skills Gaps

A skills gaps is defined when the existing staff cannot perform up to the level required by employers, and can have an impact on the operation of establishments. About a third (32.1%) of the establishments interviewed declared that employees did not perform their jobs at the required level, a proportion that had decreased from 54.5% in 2012, as shown in figure 4-36.

**Figure 4-36 Share of establishments affected by skills gaps by sector**



$N_{2014}=1,632$  &  $n_{2012}=517$

Source: NEA's ESNS 2014

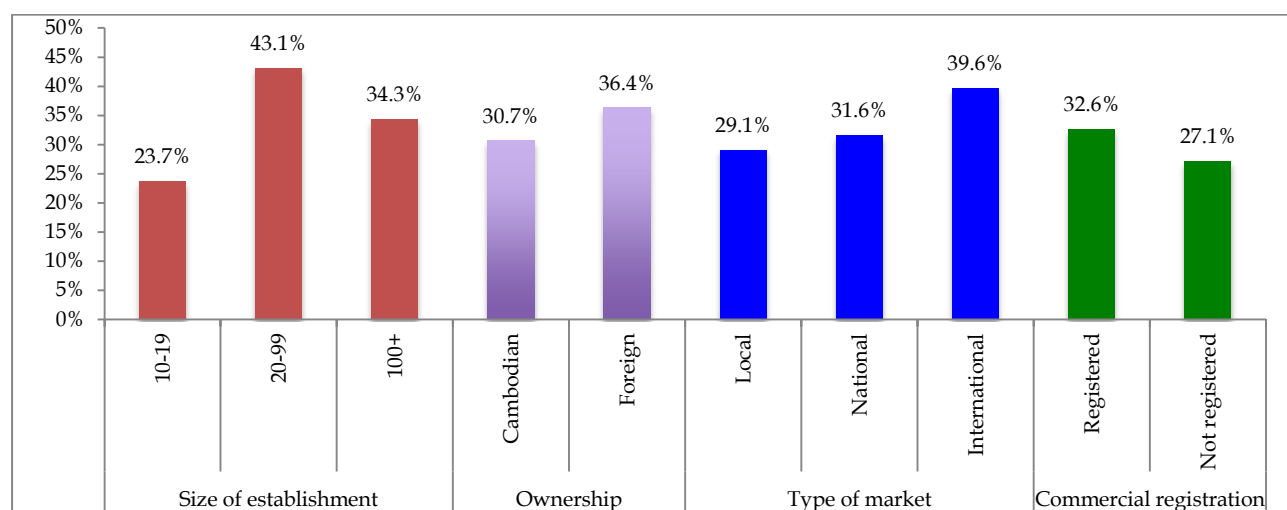
Overall, the incidence of establishments affected by skills gaps has considerably improved in the six sectors covered by the previous survey in 2012. However the incidence of this problem, as shown in figure 4-36, appears to be particularly acute in the education, accommodation, food and beverage sectors, but was also felt by around 36% of establishments in the rubber and plastics, ICT, construction, and garment sectors. For the other sectors, this proportion is quite modest and below the average value, particularly in the human health and finance sectors.

The incidence of this problem, as shown in the figure 4-37, appears to be most pronounced in the medium-sized and large establishments, while small establishments with 10–19 employees were less likely to report having skills gaps than the average.

By nationality of ownership, the incidence of establishments with skills gaps was notably more acute in foreign establishments than Cambodian ones.

The problem of skills gaps is also more prevalent in establishments operating in the international market and the national market, and to affect registered establishments more than unregistered establishments.

**Figure 4-37 Distribution of establishment affected by skills gaps by size of establishment, ownership, commercial registration, and type of market**

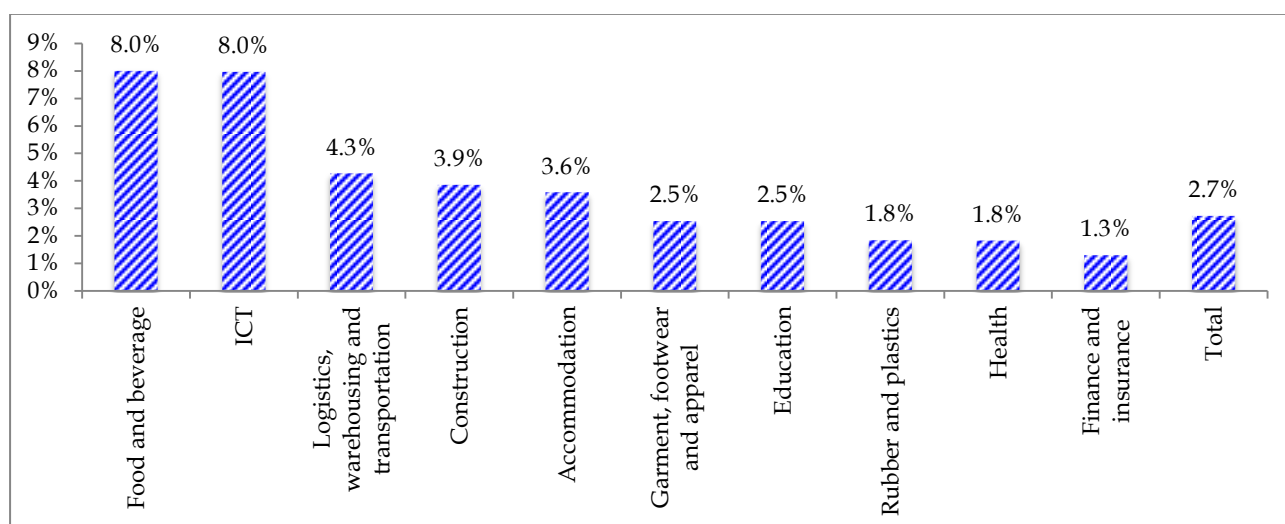


N=1,632

Source: NEA's ESNS 2014

Despite the high incidence of establishments experiencing skills gaps, about 12,205 workers or 2.7% of the total workforce were considered to have skills gaps. The food and beverage sector and ICT (both 8.0%) were the sectors with the highest proportion of workers described as having skills gaps. The skills gaps were least prevalent in the finance and human health sector, where only 1.3% and 1.8% of total employment respectively, were considered to have skills gaps.

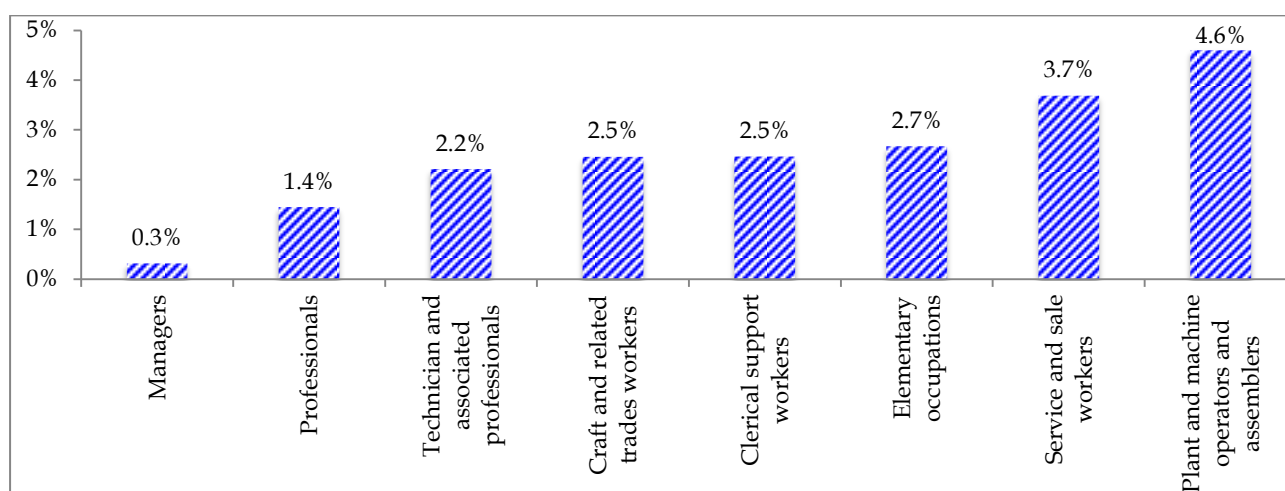
**Figure 4-38 Share of employees with skills gaps in total employment by sector**



Source: NEA's ESNS 2014

As shown in figure 4-39, in term of occupations, skills gaps tended to be most concentrated among plant and machine operators, as 4.6% of the total employees in this occupation were perceived to be not fully proficient. Additionally, 3.7% of employees in services and sales, and 2.7% of elementary occupations were considered to have skills gaps. This figure also suggested that the unskilled and skilled workers (both manual and non manual) were seen as more likely to have skills gaps than the highly skilled occupations that might have required higher qualifications, cited as managers, professionals and technician and associated professionals.

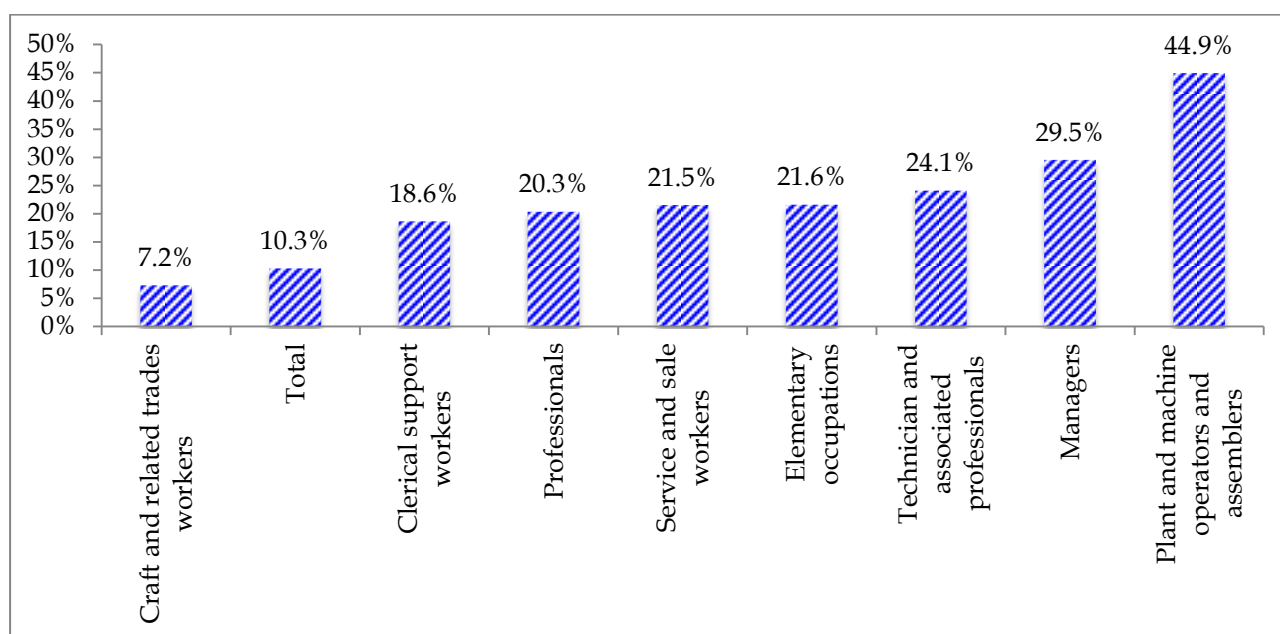
**Figure 4-39 Share of employees with skills gaps in total employment by ISCO major group**



Source: NEA's ESNS 2014

If the data is narrowed to only the establishments and occupations affected by the skills gaps, the proportion of employees with skills gaps in plant and machine operators was quite high, as 44.9% of employees in this occupation were considered to have skills gaps. Managers ranked second, with 29.5% of employees in this occupation being perceived to be not fully proficient. At the same time, only 7.2% of workers in craft and related trades were considered to have skills gaps, while in other occupations the proportion of employees with skills gaps varied between 24.1% in technical and associated professionals and 18.6% in clerical support workers, as shown in figure 4-40.

**Figure 4-40 Share of employees with skills gaps in the total employees of occupations affected by skills gaps, by ISCO major group**



Source: NEA's ESNS 2014

#### 4.6.2. Causes of Skills Gaps

The main causes of employees not performing up to the required level are presented in figure 4-41. The results are reported as the percentage of all occupations with skills gaps rather than a percentage of establishments with skills gaps. Establishments could give more than one factor that caused skills gaps for each occupation.

Staff lacking motivation is the key cause of skills gaps, which is perceived to explain about three-quarters (75.3%) of all occupations with skills gaps. The second reason, with 27.3% of skills gaps occupations, was cited as being because workers were new to the role. This reason could be either because they had recently started the job (first time jobseeker) or had recently been promoted to the higher position.

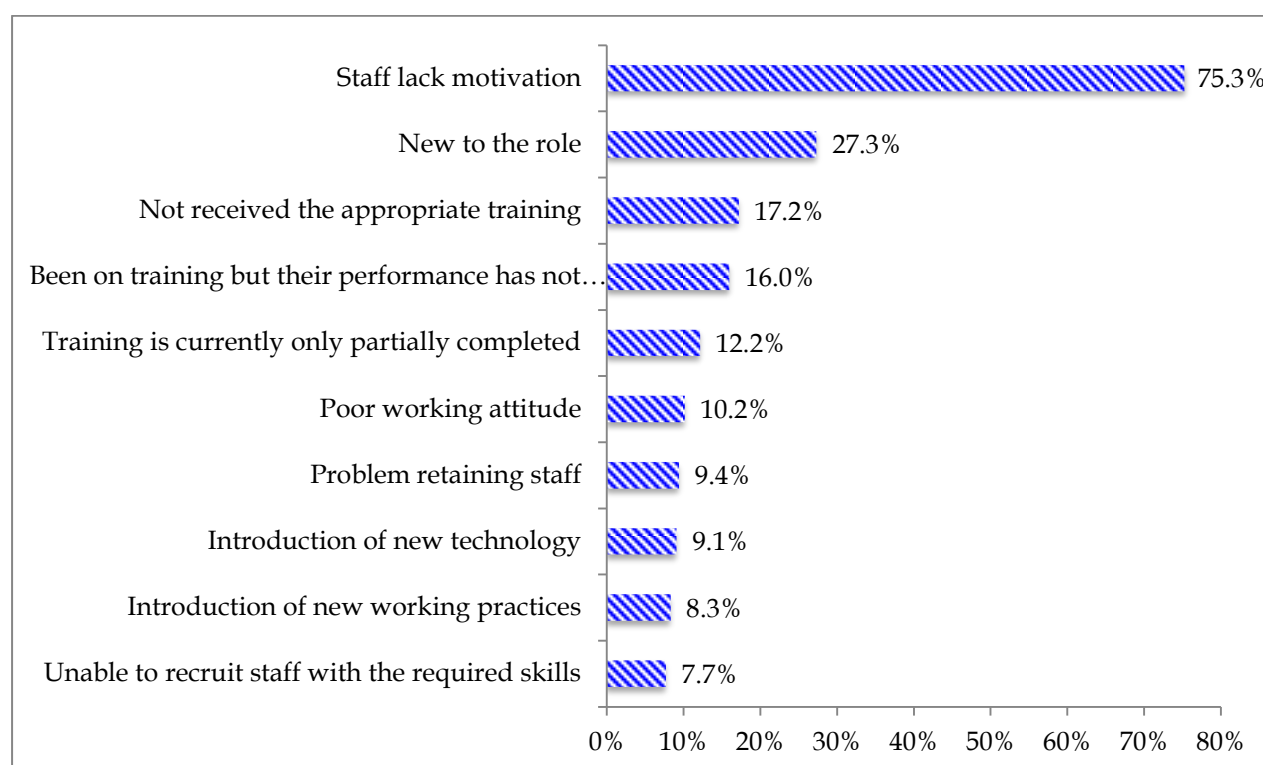
Additionally, the three following causes of skills gaps were related to training: had not received the appropriate training (17.2%), training proving ineffective (16.0%), and staff training only being partially completed (12.2%). These three factors suggest that the skills gaps could be resolved by further investment in training; however, the impact and duration of training might depend on the ability of establishments to provide the appropriate training.

Poor working attitude is the other key cause of skills gaps, which was perceived to explain approximately 10.2% of vacancies with skills gaps.

Recruitment related factors resulting from problems of retaining staff and being unable to recruit staff with the required skills were also likely to be cited. In both cases, this implied that the experienced staff had left or a new post had been created and the employers had no choice other than to recruit less qualified people to fill the post.

A requirement for further training is also found in those skills gaps vacancies due to the introduction of new technology (9.1%) and the introduction of new work practices (8.3%).

**Figure 4-41 Factors associated with employees not performing to the required level by sector**

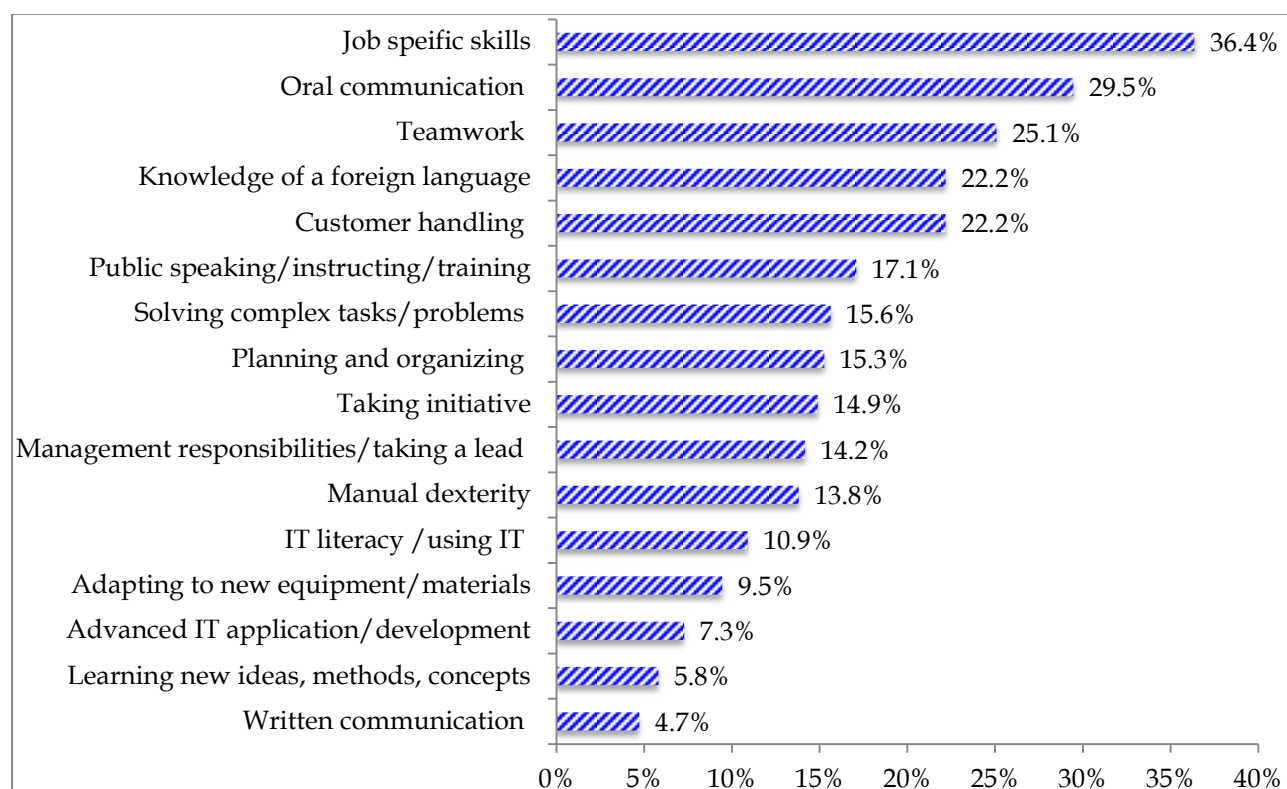


**Note:** The figure shows the proportion of skills gaps vacancies caused by each factor reported by employer  
*Source: NEA's ESNS 2014*

### 4.6.3. Skills That Need to be Improved

Regarding skills that needed improvement, the establishments gave answers spread over the possibilities offered by the questionnaire. However, as shown in figure 4-42, five skills were cited by more than 20 per cent of the establishments, in the following order: job specific skills, oral communication, teamwork, knowledge of a foreign language, and customer management. The pattern of skills that needs to be improved is similar to skills shortages among jobseekers in the previous section.

**Figure 4-42 Skills that need to be improved**



**Note:** The figure show the proportion of skills gaps vacancies caused by each factor reported by employer  
*Source: NEA's ESNS 2014*

There were some variations by sector. The top skills that need to be improved by sector were as follows:

**Table 4-24 Skills that need to be improved by sector**

<b>Food and beverage</b>		<b>Construction</b>	
Job specific skills	36.8%	Team working	43.3%
Oral communication	28.9%	Knowledge of a foreign language	36.7%
Team working	26.3%	Job specific skills	33.3%
Management responsibilities/taking a lead	23.7%	Taking initiative	26.7%
Customer management	21.1%	Adapting to new equipment /materials	23.3%
Manual dexterity	21.1%	Advanced IT application/development	23.3%
<b>Rubber and plastics</b>		<b>ICT</b>	
Job specific skills	77.3%	Oral communication	60.0%
Team working	22.7%	Solving complex tasks/problems	60.0%
Manual dexterity	18.2%	Knowledge of a foreign language	60.0%
Management responsibilities/taking a lead	13.6%	Customer management	50.0%
IT literacy /using IT	9.1%	Job specific skills	50.0%
Learning new ideas, methods, concepts	9.1%	Team working	50.0%
<b>Logistics, warehousing and transportation</b>		<b>Finance and insurance</b>	
Oral communication	50.0%	Oral communication	53.3%
Public speaking/instructing/training	35.7%	Customer management	46.7%
Team working	28.6%	Team working	36.7%
Customer management	21.4%	Solving complex tasks/problems	33.3%
Management responsibilities/taking a lead	21.4%	Job specific skills	30.0%

<b>Education</b>		<b>Garment, footwear and apparel</b>	
Knowledge of a foreign language	43.2%	Team working	32.3%
Job specific skills	27.0%	Manual dexterity	22.6%
Solving complex tasks/problems	27.0%	Oral communication	16.1%
Management responsibilities/taking a lead	21.6%	IT literacy/using IT	16.1%
Planning and organizing	18.9%	Taking initiative	12.9%
Taking initiative	18.9%	Knowledge of a foreign language	12.9%
<b>Human health</b>		<b>Accommodation</b>	
Job specific skills	40.0%	Oral communication	50.0%
Taking initiative	26.7%	Knowledge of a foreign language	37.5%
Customer management	26.7%	Customer management	35.4%
Solving complex tasks/problems	20.0%	Public speaking/instructing/training	29.2%
Knowledge of a foreign language	13.3%	Planning and organizing	18.8%
Planning and organizing	13.3%		
Oral communication	13.3%		
Manual dexterity	13.3%		

**Note:** The figure shows the proportion of skills gaps vacancies caused by each factor reported by employer

Source: NEA's ESNS 2014

Let us now analyse the problem from the perspective of ISCO major group, as shown in table 4-25. Although certainly influenced by the sectors involved in the survey, the message was very clear:

- Establishments suggested that managers should improve management responsibilities/taking a lead, and planning and organizing. Professionals should receive additional training in knowledge of a foreign language, and in planning and organizing.
- Establishments also suggested that technicians and associated professionals should receive training in oral communication, customer management, and job specific skills.
- Establishments need clerical and support workers, and service and sales workers in possession of better knowledge of foreign languages, oral communication, and a more developed capacity to communicate with and manage clients.
- Regarding craft and related trade workers, and plant and machine operators, the main demand was for more job specific skills, teamwork, manual dexterity and oral communication.
- For elementary occupations, the employers suggested there should be better preparation in terms of job specific skills and manual dexterity.

**Table 4-25 Skills that need to be improved by ISCO major group**

<b>Managers</b>		<b>Professionals</b>	
Management responsibilities/taking a lead	66.7%	Knowledge of a foreign language	34.0%
Planning and organizing	50.0%	Planning and organizing	29.8%
Job specific skills	33.3%	Management responsibilities/taking a lead	23.4%
Oral communication	33.3%	Solving complex tasks/problems	23.4%
Solving complex tasks/problems	33.3%	Teamwork	23.4%
Clerical/administrative tasks	33.3%	Advanced IT application/development	23.4%
<b>Technician and associated professionals</b>		<b>Clerical support workers</b>	
Oral communication	48.9%	Knowledge of a foreign language	50.0%
Customer management	42.2%	Oral communication	33.3%
Job specific skills	37.8%	Customer management	30.0%
Teamwork	35.6%	Public speaking/instructing/training	30.0%



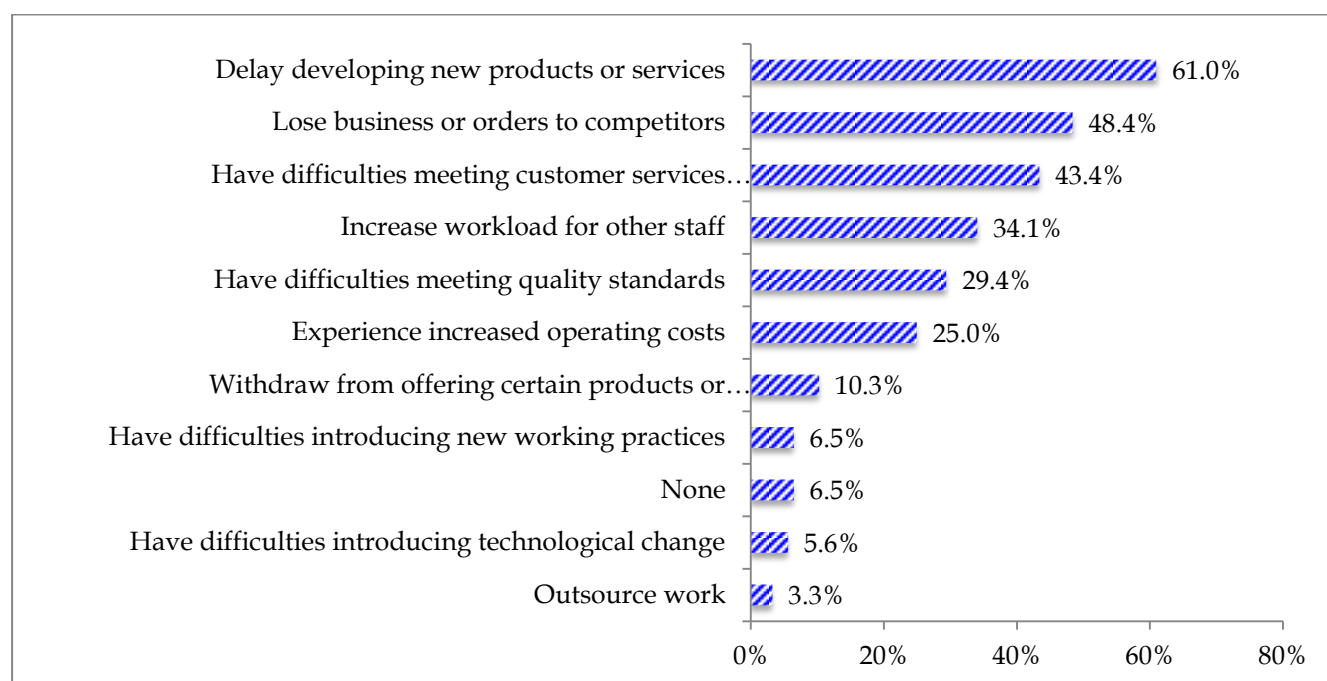
Public speaking/instructing/training	26.7%	Management responsibilities/taking a lead	23.3%
<b>Service and sales workers</b>		<b>Craft and related trades workers</b>	
Oral communication	53.1%	Job specific skills	56.8%
Customer management	40.8%	Manual dexterity	29.7%
Knowledge of a foreign language	34.7%	Teamwork	21.6%
Job specific skills	22.4%	Taking initiative	13.5%
Public speaking/instructing/training	20.4%	Solving complex tasks/problems	13.5%
Teamwork	20.4%		-
<b>Plant and machine operators and assemblers</b>		<b>Elementary occupations</b>	
Job specific skills	66.7%	Job specific skills	52.2%
Teamwork	40.0%	Teamwork	26.1%
Oral communication	33.3%	Manual dexterity	21.7%
Manual dexterity	20.0%	Oral communication	13.0%
IT literacy/using IT	20.0%		

**Note:** The figure shows the proportion of skills gaps vacancies caused by each factor reported by employer

Source: NEA's ESNS 2014

#### 4.6.4. Impacts of Skills Gaps and Measures Taken to Address the Problem

**Figure 4-43 Impacts of skills gaps**



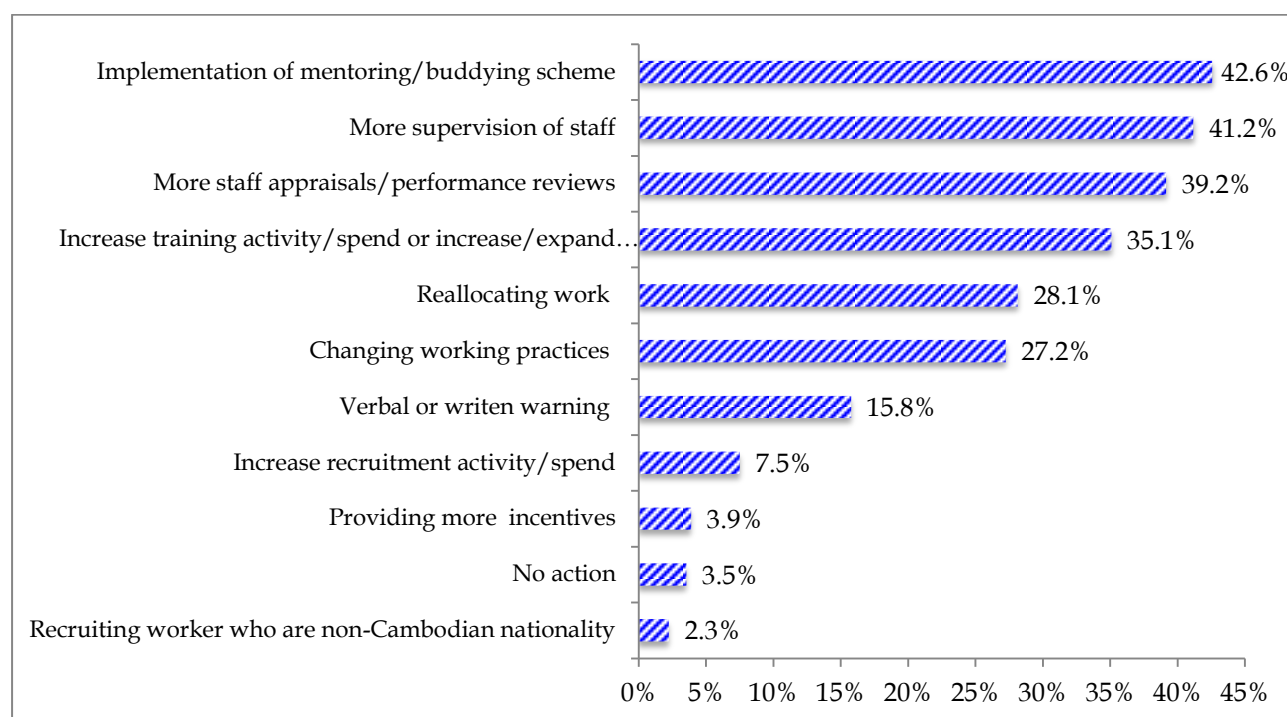
N=1,632

Source: NEA's ESNS 2014

Almost all establishments with skills gaps (93.5%) said they had seen impact on their economic activities. As for hard-to-fill vacancies, establishments with skills gaps found that skills gaps prohibited their business developing or growing specifically in terms of: delay developing new products/services (61.0%), loss of business or orders to competitors (48.8%), have difficulties meeting customer objectives (43.4%), and have difficulties meeting quality standard (29.4%). Additionally, a third believed that skills gaps led to increased workload for other staff and a quarter encountered the problem of an increase in operational costs.

Fewer, although a still sizeable number of employers, found that skills gaps prevented the innovation processes in the establishment, citing difficulties introducing new working practices (6.5%) and having difficulties introducing technological change (5.6%).

**Figure 4-44 Measures taken to address the skills gaps**



N=1,632

Source: NEA's ESNS 2014

Given that most establishments said that the skills gaps were having impacts, it was clear that the vast majority did take specific measures to address this issue, while only 3.5% of establishments with skills gaps did not take any action.

Staff lacking motivation was the key cause of skills gaps, however the data suggested that employers were not willing to provide additional incentives, including financial and non-financial measures to overcome this problem (3.9% of establishments with skills gaps).

Incidentally, the most likely measures to overcome the skills gaps were to implement a mentor or buddying scheme and increase their supervision of staff, which were undertaken by 42.6% and 41.2% respectively of establishments affected by skills gaps. Additionally, two-fifths increased staff appraisals or reviews, and a third increased training activities or expanding the training programmes.

At the same time, establishments with skills gaps were also likely to reallocate work and change work practices at the workplace (both around one quarter).

Interestingly, about 15.8% of establishments with skills gaps had adopted a warning notification system, both verbal and non-verbal, to notify staff who did not performed to required level.

## 4.7. Workforce Development and Business Strategies

After presenting the commitment of employers to solve the problems of skills shortages and skills gaps through training related measures in the previous session, this section will present the proportion of establishments that had funds or arranged the training or informal workforce skills development programmes to their employees in the 12 months preceding and how this varied by sector, size of establishment, ownership, type of market and commercial registration status. Also, this section will present the main training activities undertaken by the establishments together with the difficulties in organizing them, and discuss the establishments' future plans to recruit new staff in the following year.

### 4.7.1. Workforce Development

#### 4.7.1.1. Incidence of Training

During the 12 months preceding the survey, a half of establishments (49.8%) had funds or arranged some form of training of their employees. The percentage of establishments that provided more training was not directly related to the establishment size, as shown in table 4-26: 39.6% of small establishments, 60.5% of medium-sized establishments, and 58.2% of large establishments provided training. Foreign-owned establishments (57.8%) were more inclined to provide training than Cambodian establishments (47.0%). Establishments operating in the local market (53.1%) were more inclined to provide training than establishments operating in the national market (49.1%) or the international market (44.9%).

In the finance sector, 88.4% of the establishments provided some form of training. In education, training was provided by around 78.3% of the establishments, in ICT by 64.1%, in human health by 63.8%, and in construction by 52.4%. In other sectors, however, the proportion that had provided training to employees were in the low 50% and ranged between 43.7% in the rubber and plastics sector to 22.8% in the logistics sector.

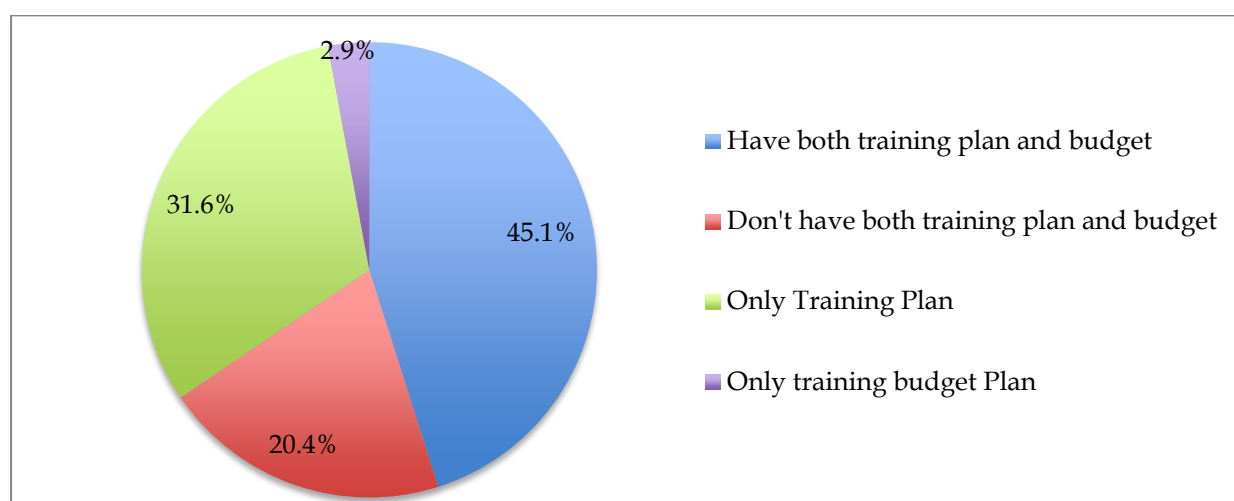
**Table 4-26 Share of establishments that provided training by sector, size of establishment, ownership, type of market, and commercial registration**

Sector		Size of establishment	
Accommodation	34.1%	10–19	39.6%
Construction	52.4%	20–99	60.5%
Education	78.3%	100+	58.2%
Finance and insurance	88.4%	<b>Ownership</b>	
Food and beverage	23.8%	Cambodian	47.0%
Garment, footwear, and apparel	29.5%	Foreign	57.8%
Human health	63.8%	<b>Type of market</b>	
ICT	64.1%	Local	53.1%
Logistics, warehousing, and transportation	22.8%	National	49.1%
Rubber and plastics	43.7%	International	44.9%
<b>Average</b>	<b>49.8%</b>	<b>Commercial registration</b>	
<i>N=3,172</i>		Registered	51.6%
<i>Source: NEA's ESNS 2014</i>		Not registered	31.7%

Finally, 31.7% of unregistered establishments provided some form of training, versus a percentage of 51.6% for registered establishments.

As shown in figure 4-45, under half of establishments providing training to their employees had both training plans and budget that specified in advance the level and type of training that would be needed in the coming year. Approaching a third (31.6%) had only a training plan and about 2.9% had only a budget for training expenditure. At the same time, about one-fifth (20.4%) that had provided training in the last 12 months did not have both a training plan and budget. Clearly training quite often took place on an ad hoc basis without being formally planned.

**Figure 4-45 Training plan and training budget**

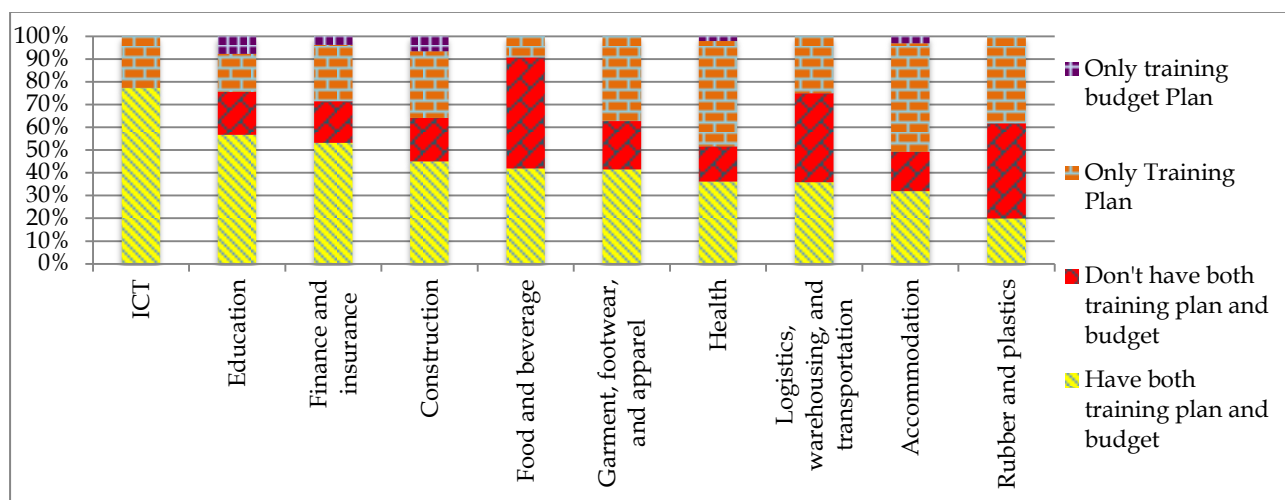


N=1,580

Source: NEA's ESNS 2014

The highest proportion of establishments that have both training plan and budget was found in ICT (77.2%), followed by education (56.7%) and the finance and insurance sector (53.1%). Simultaneously, in the construction, food and beverage, and garment sector, these proportions approached two-fifths of all establishments in each sector. In the other sectors, this proportion was quite moderate and varied between 36.1% in human health and 19.9% in the rubber and plastics sector, as shown in figure 4-46.

**Figure 4-46 Training plan and training budget by sector**

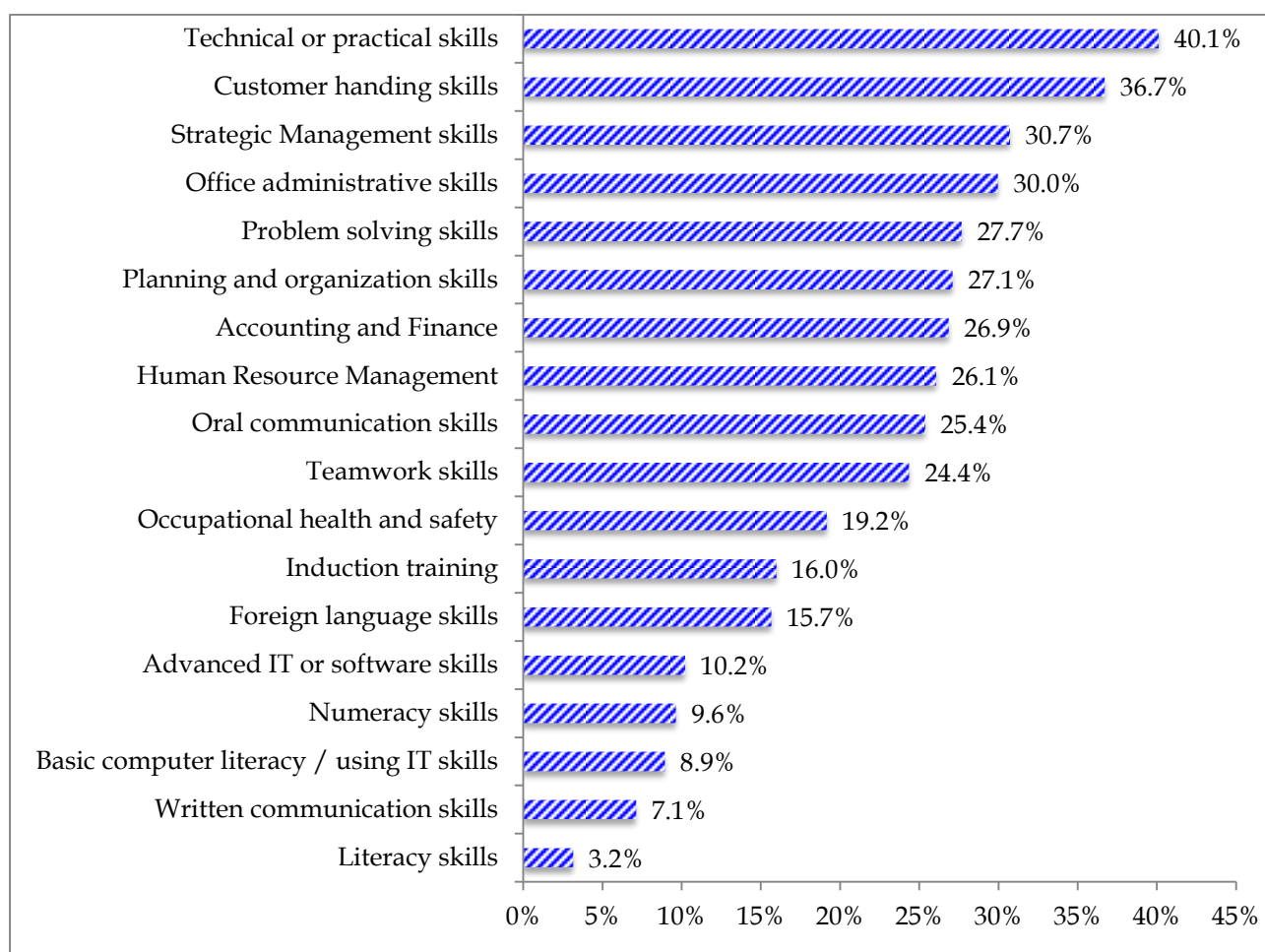


N=1,580

Source: NEA's ESNS 2014

#### 4.7.1.2. Types of Training Courses

**Figure 4-47 Share of establishments that provided training in the last 12 months, by type of training**



N=1,580

Source: NEA's ESNS 2014

As shown in figure 4-47, the most common type of training provided by employers was technical and practical skills (40.1% of establishment that trained employees in the last 12 months), which was the most cited as skills shortages; followed by customer management skills (36.7%). About a third had funded or arranged strategic management and office management (30.7% and 30.0% respectively). The other training, provided by more than 20% of all establishments, were: problem solving skills (27.7%), planning and organization (27.1%), accounting and finance (26.9%), human resource management (26.1%), oral communication (25.4%), and teamwork (24.4%). The detailed hierarchy of training type is indicated in figure 4.47.

However, training provisions varied across sectors, as shown in table 4-27 below.

**Table 4-27 Share of establishments that provided training in the last 12 months, by type of training and sector**

<b>Accommodation</b>		<b>Construction</b>		<b>Education</b>	
Oral communication skills	57.2%	Technical or practical skills	52.2%	Foreign language skills	51.1%
Customer handling skills	53.3%	Accounting and Finance	35.1%	Office administrative skills	51.1%
Problem solving skills	45.8%	Advanced IT or software skills	32.1%	Strategic Management skills	43.4%
Technical or practical skills	36.7%	Team working skills	31.6%	Human Resource Management	43.3%
Team working skills	33.9%	Strategic Management skills	25.1%	Technical or practical skills	36.7%
<b>Finance and insurance</b>		<b>Food and beverage</b>		<b>Human health</b>	
Customer handling skills	58.6%	Technical or practical skills	36.9%	Technical or practical skills	49.7%
Accounting and Finance	51.6%	Occupational health and safety	22.4%	Office administrative skills	34.7%
Strategic Management skills	43.7%	Human Resource Management	14.3%	Planning and organization skills	31.2%
Problem solving skills	41.3%	Oral communication skills	12.4%	Customer management skills	28.4%
Office administrative skills	40.0%	Strategic Management skills	12.2%	Strategic Management skills	21.9%
<b>ICT</b>		<b>Garment, footwear, and apparel</b>		<b>Logistics, warehousing, and transportation</b>	
Technical or practical skills	100.0%	Technical or practical skills	40.5%	Planning and organization skills	58.8%
Customer handling skills	77.2%	Strategic Management skills	21.3%	Customer management skills	44.6%
Human Resource Management	77.2%	Team working skills	21.3%	Problem solving skills	39.2%
Problem solving skills	77.2%	Occupational health and safety	16.0%	Numeracy skills	39.2%
Accounting and Finance	66.7%	Human Resource Management	12.8%	Oral communication skills	25.0%
Advanced IT or software skills	54.5%	Office administrative skills	12.8%	Office administrative skills	25.0%
Strategic Management skills	54.5%	Induction training	12.8%	Written communication skills	25.0%
<b>Rubber and plastics</b>					
Technical or practical skills	54.5%				
Induction training	12.8%				
Accounting and Finance	12.8%				
Planning and organization skills	9.1%				
Team working skills	9.1%				
Human Resource Management	9.1%				

N=1,580

Source: NEA's ESNS 2014

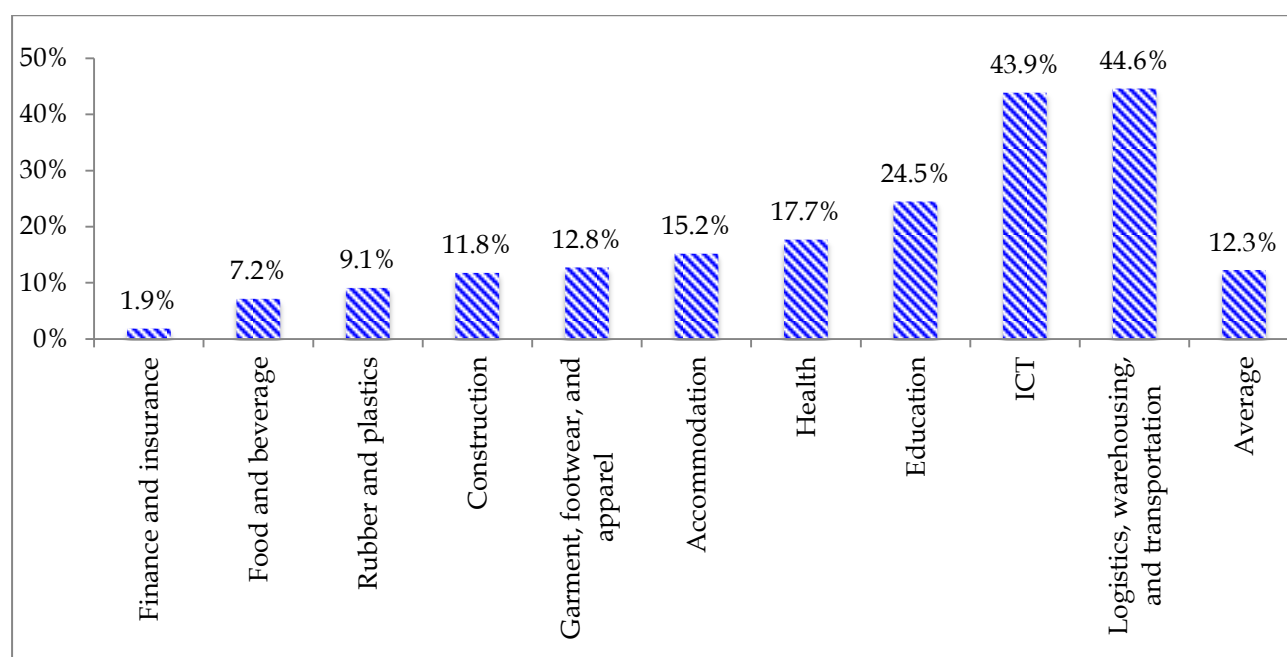
#### 4.7.1.3. The Problem in Organizing Training Courses

The last section of this part of the questionnaire aimed to ascertain whether, and in which measure, establishments experienced difficulties in organizing training courses and/or finding trainers, as shown in figure 4-48 and figure 4-49.

Around 12.3% of establishments providing training reported difficulties in organizing training courses and/or finding trainers, with the problem particularly acute in logistics (44.6%), followed by ICT (43.9%), education (24.5%), human health (17.7%), accommodation (15.2%), garment (12.8%), and other sectors (less than the average value).

Regarding the reasons for difficulty in organizing training, 54.3% indicated no or poor information on course/trainer, 50.9% no or lack of courses/trainers, and again 39.9% the low quality of courses/trainers. However, the survey left some uncertainty, given that 30.0% of the establishments chose the answer “Other reasons”.

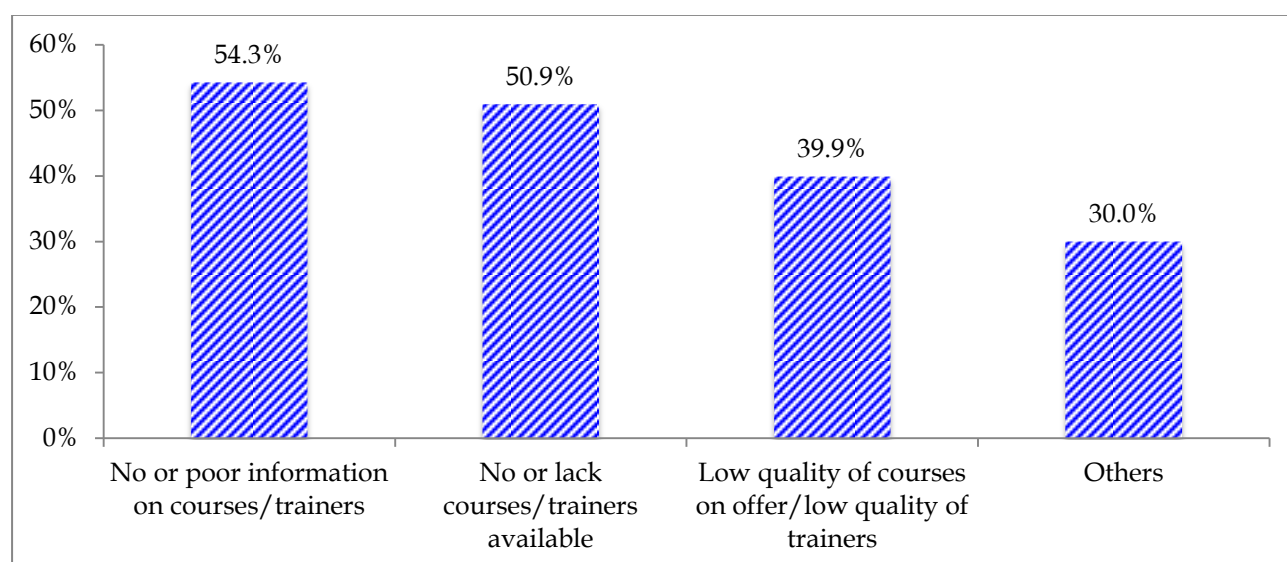
**Figure 4-48 Share of establishments that organized training courses and experienced difficulties by sector**



N=1,580

Source: NEA's ESNS 2014

**Figure 4-49 Reasons for difficulty in organizing training**

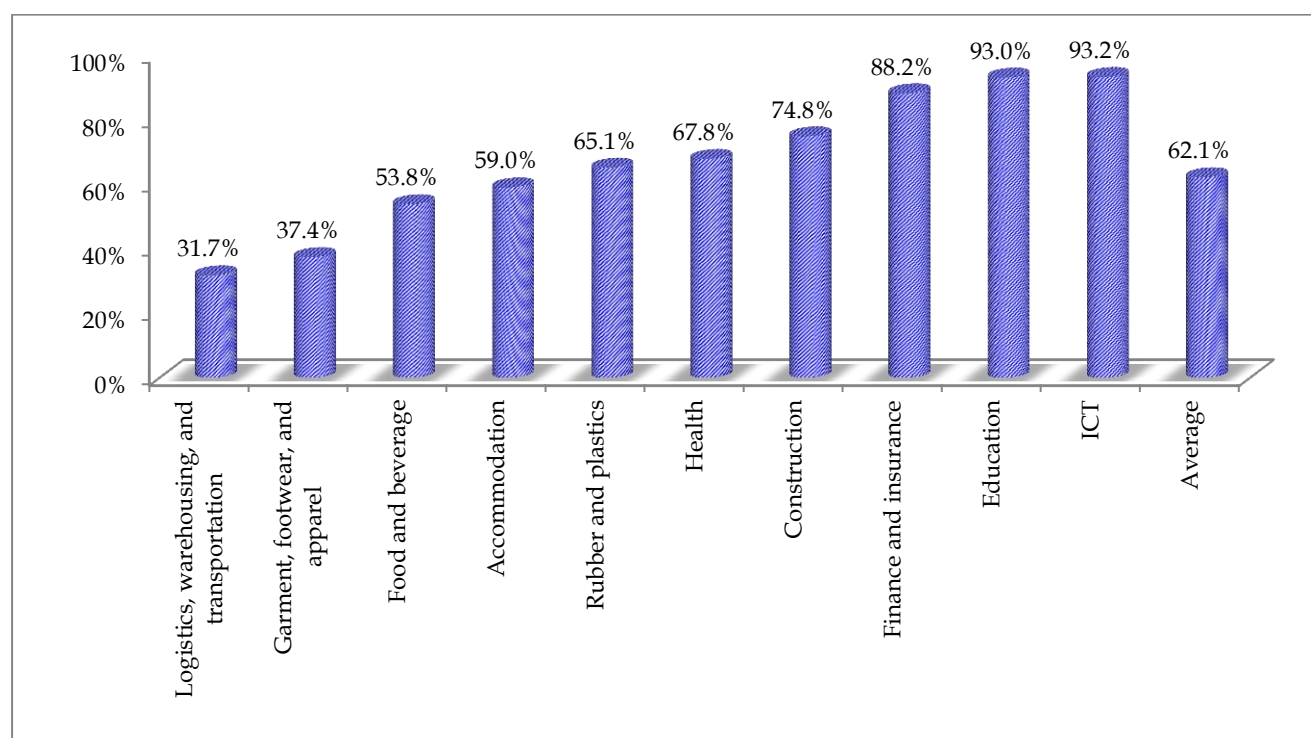


N=1,580

Source: NEA's ESNS 2014

## 4.7.2. Business Development Strategies

**Figure 4-50 Share of establishments that planned to introduce new products, services, or technologies, or to expand or switch to new markets; by sector**



N=3,172

Source: NEA's ESNS 2014



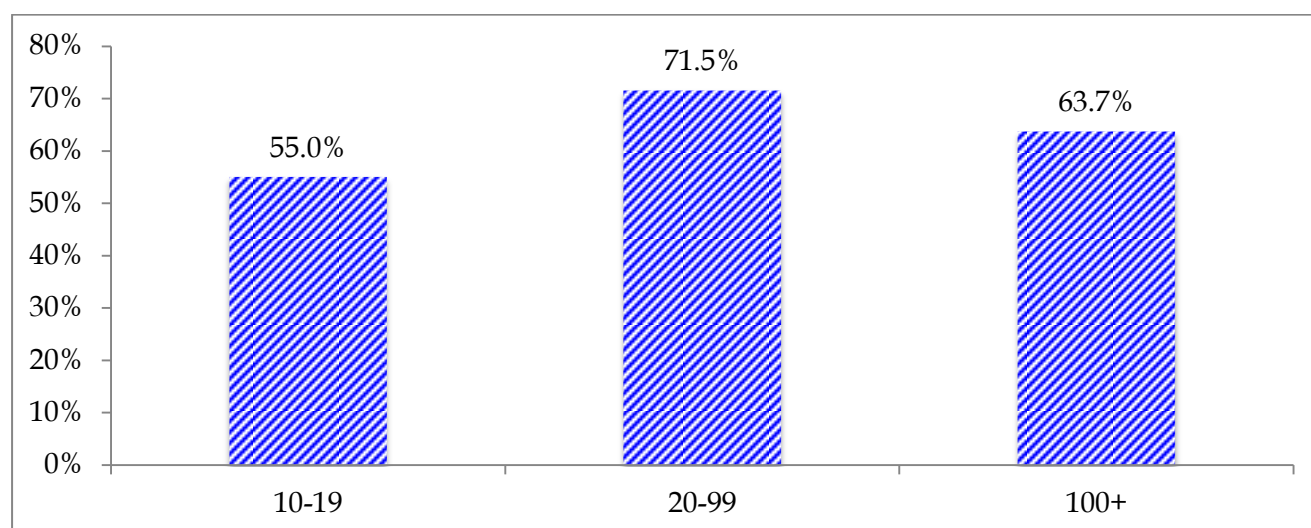
The last part of the questionnaire aimed to ascertain the willingness of the establishments to innovate in product development, services, technologies, and to acquire new markets in the next year. Such willingness was stated by 62.1% of all the establishments.

Much more relevant differences emerged when we considered the sectors (as shown in figure 4-50) and the size of establishment (as shown in figure 4-51).

The ICT and education sectors appeared to be the sectors in which there were the highest proportions of establishments reporting plans to introduce new products, services, technologies and to acquire new market, with 93.2% and 93.0% respectively. The other sectors with above average percentages were: finance and insurance (88.2%), construction (74.8%), human health (67.8%), and rubber and plastics (65.1%). In other sectors, the proportion differed between 59.0% in accommodation and 31.7% in logistics.

As shown in figure 4-51, size of establishment was not a relevant factor in this question, with large establishments on the average, small establishments a little below average, and medium-sized establishments above the total average value.

**Figure 4-51 Share of establishments that planned to introduce new products, services, or technologies, or to expand/switch to new markets; by group size**

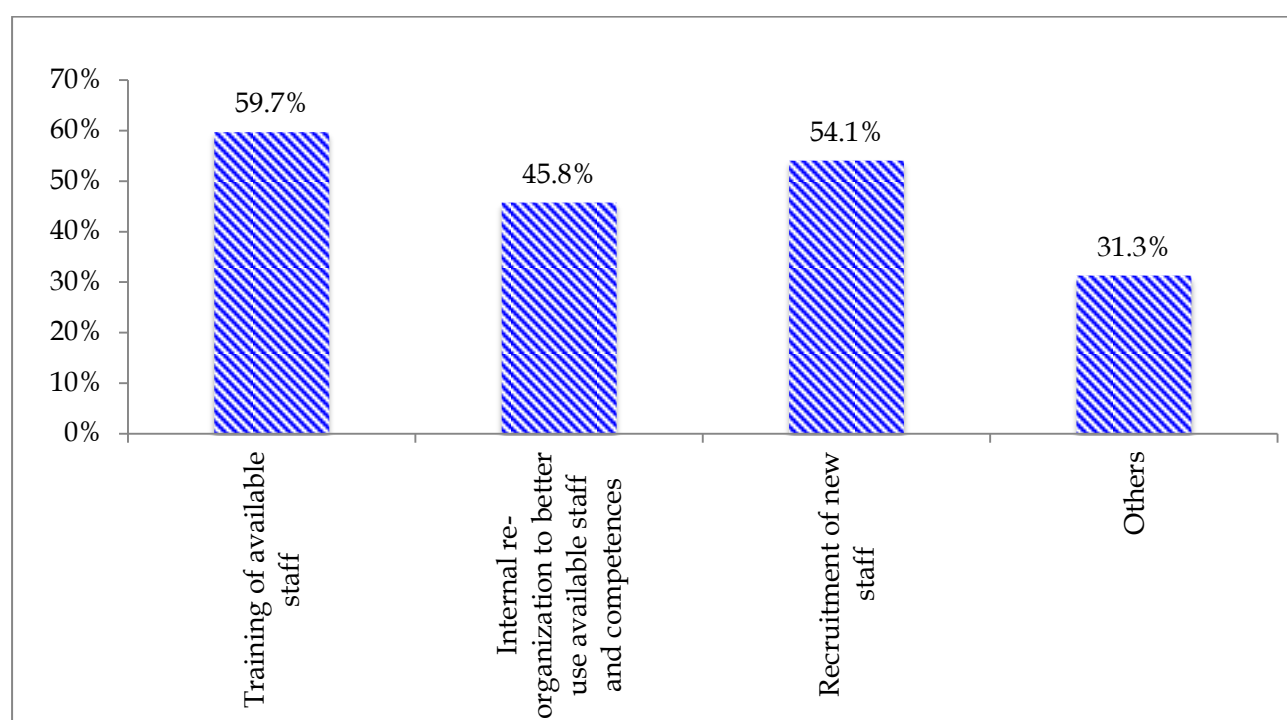


N=3,172

Source: NEA's ESNS 2014

As shown in figure 4-52, exploring the policies that establishments intended to adopt in order to expanding their business or acquire new market, the survey found that: 59.7% of them planned to train their existing staff, 54.1% planned to hire additional staff, and 45.8% planned to restructure their organization to better use of available staff and competencies.

**Figure 4-52 Policies that the establishment intended to adopt to introduce new products, services, or technologies, or to expand/switch to new markets**



N=1,971

Source: NEA's ESNS 2014

When we examined the policies adopted by the establishments by sector, as shown in table 4-28, the majority of establishments in finance, human health, ICT, and logistic indicated training as the main road to market expansion. At the same time, the greater number of establishments in construction, and garment considered internal re-organization to be an obviously necessary measure. In accommodation, education, food and beverage, and rubber and plastics, most establishments indicated recruitment of new staff would be important regarding this aspect.

**Table 4-28 Policies that establishments intended to adopt to introduce new products, services, or technologies, or to expand/switch to new markets, by sector**

	Training of available staff	Internal re-organization	Recruitment of new staff
Accommodation	52.2%	56.2%	64.4%
Construction	40.6%	55.3%	40.2%
Education	70.1%	67.4%	76.7%
Finance and insurance	68.2%	43.4%	60.6%
Food and beverage	41.9%	39.4%	49.2%
Garment, footwear, and apparel	54.6%	58.8%	39.5%
Human health	66.6%	12.4%	41.3%
ICT	68.7%	61.5%	37.4%
Logistics, warehousing, and transportation	68.0%	78.2%	53.9%
Rubber and plastics	34.2%	36.6%	56.1%

N=1,971

Source: NEA's ESNS 2014

## 5. Main Observation and Policy Recommendation

### 5.1. Final Observations

This study is evidence-based research that explores employers' perceptions on skills shortages, skills gaps and skills demands in the Cambodian labour market. This section summarizes the key messages coming out of the survey analysis.

*(1). Cambodian skills mismatch issues are complicate not only in terms of a matter of skills shortages or skills gaps but also of meeting the current demand for appropriate unskilled workers as well*

- High rate and early drop out rate of students from general education, which prevents them from becoming equipped with sufficient employability skills [which would lead to] productivity improvements (skills upgrading from low to medium).
- Accumulated large supply of low-skilled workforce
- Unskilled Cambodian workers are moving to neighbouring countries because of their low domestic wages.
- Low enrolments in and attractiveness of TVET and the curriculum design at higher education level seems to be biased towards only some selected majors (social sciences).

*(2). The Sectorial structure of Cambodia is relatively young, small and medium size, and dominated by foreign-ownership*

- The average age of Cambodian establishments is 11.2 years old: The rubber and plastics sector is the youngest sector with an average age of 7.2 years, while the average age of establishments in other sectors ranged between a maximum of 15.8 years old in logistics and 7.8 years old in garment sector.
- About half of establishments (49.4%) were small sized establishments (10-19 employees), 34.7% were medium sized establishments (20-99 employees), while only 15.9% were large establishments (100+ employees).
- Almost one-third of establishments were foreign-owned, and almost half of them were owned by Chinese and ASEAN entities. The highest proportion of foreign owned establishments was found in the garment sector (50.7%), followed by the finance and insurance sector (47.6%).

*(3). The majority of formal employment was concentrated in large sized establishments, but characterized by low-skilled workers*

- Around 85.8% of total employees were concentrated in the large sized establishments, followed by medium sized establishments (9.6%) and small sized establishments (4.6%). The average size of establishments overall was 140 employees.
- An analysis by ISCO major group shows that the skills level required for the jobs was quite low: Craft and related trades workers, accounting for 55.3%, had the largest share, followed by elementary occupations with 12.5%. Plant and machine operators accounted for 2.9% of the total employed. In the occupations that require at least a high school diploma,

technicians accounted for 5.8% of total employed, professionals for 8.2%, and managers for 4.9%.

***(4). Cambodian labour market is quite dynamic in terms of employment generation***

- There is a positive trend of employment growth between 2011 and 2014 with a growth rate of 23.5%.
- Most employers have a demand for more labour to serve the rapid expansion of demand in 2015, to some extent, due to high capacity utilization of existing staff.
- The sector that has reported the largest percentage increase was the construction sector (40.8%), followed by the finance and insurance sector (38.0%), and the food and beverages sector (32.1%). The garment, footwear and apparel sector, with the largest share of employment, has registered consistent growth of 25.9%. The other sectors, except ICT, have also experienced positive growth; however, they have remained below the average, with a range from 8.0% in the rubber and plastics sector to 13.6% in the education sector.
- The largest contribution to employment growth came from the garment, footwear and apparel (78.9%) sector, followed by finance and insurance (7.6%), and food and beverage (3.9%).

***(5). The Cambodian labour market is characterized by its high turnover rate***

- The average turnover rate of ten investigated sectors was quite high, with an average of 26.1% during 2013 and 2014. At the same time, the highest turnover rate (30.9%) was found in the garment, footwear, and apparel sector, followed by rubber and plastics (23.7%). There were four sectors in which the turnover rate was fairly high: accommodation (18.5%), food and beverage of (17.8%), ICT (16.8%), and construction (15.6%). Other sectors reported quite low turnover rates ranging between 7.2% in finance and insurance, and a minimum of 4.5% in the human health sector.

***(6). The majority of education leavers is well prepared for their first job***

- About half of all establishments recruited first-time jobseekers coming directly from the education system. About one-third had hired higher education graduates, while only 17.8% had hired young people coming from TVET. Upper-secondary school graduates had been hired by one fifth of all establishments (20.9%).
- The majority of establishments recruiting those first time jobseekers expressed positive views on their preparedness for their first job. This perception is slightly improved compared to 2012.
- For first time job seekers who were rated as poorly prepared for the job, they basically lack life experience and maturity, lacked technical or job specific skills, and had poor attitude or lack of motivation.

***(7). Labour market could not fully satisfy employers' demands for new staff***

- With the notable expansion in the demand for labour, the employers were countered by an insufficient supply of both skilled and (mainly) unskilled workers. This resulted in a large

number of vacancies that accounted, at the time of interview, to one-quarter of all vacancies (23.0%).

- The highest percentage of hard-to-fill vacancies was in the ICT sector (74.2%), followed by the food and beverage, and logistics sectors with values of 35.4% and 31.4%, respectively. In the garment, accommodation, and education sectors, the proportion of hard-to-fill vacancies was just above the average. The rubber and plastics, and human health sectors followed with 19.0% and 17.6%, while the finance and construction sectors seemed to enjoy a much better situation, with only 13.4% and 11.6%, respectively.
- The ISCO major groups most affected were concentrated among the craft and related workers (44.0%) and elementary occupations (22.8%). While the proportion of other ISCO major groups were all below 9.0%.
- The reasons most commonly cited for problems with recruitment related to the quality of the applicants (lack of skills and work experience) and the quantity of applicants, cited as the low number of applicants and insufficient people interested in doing this type of job. All this would seem to imply, on one hand, that the vocational training system does not produce a sufficient number of skilled workers to meet the demands of the market and, on the other, that wages and working conditions are not sufficiently attractive for rural workers who can always fall back on subsistence agriculture on the family farm.
- Employers generally reported that most applicants were lacking: technical or practical skills, foreign language skills, and basic computer literacy/using IT.

***(8). Half of establishments suffered the skills gaps issues but this issue exists among in a small proportion of staff***

- About one third (32.1%) of establishments declared that their employees did not perform their jobs at the required level.
- Despite the high incidence of establishments experiencing skills gaps, about 12,205 workers or 2.7% of the total workforce were considered to have skills gaps. The food and beverage and ICT sectors (both 8.0%) were the sectors with the highest proportion of workers described as having skills gaps. The skills gaps were least prevalent in the finance and human health sectors, where only 1.3% and 1.8% of total employees, respectively, were considered to have skills gaps.
- The unskilled and skilled workers (both manual and non manual) were seen as more likely to have skills gaps than the highly skilled occupations that might require higher qualifications cited as managers, professionals and technicians and associated professionals.
- The main cause of inadequate performance indicated by the establishments in all sectors was a lack of motivation. This reason was cited by three-quarters (75.3%) of all occupations with skills gaps. The second reason was that workers were new to the role, which could be connected to the high turnover that characterizes the Cambodian labour market. Insufficient training and the limited impact of the training on workers' performance ranked only third.
- Regarding skills that needed to be improved, five skills were cited by more than 20% of establishments, in the following order: job specific skills, oral communication, teamwork, knowledge of a foreign language, and customer handling.

*(9). At establishment level, skills mismatch might result in higher recruitment cost, lower productivity, delay developing new P&S, increasing workload, and loss of business to other competitors*

- As for hard-to-fill vacancies, establishments with skills gaps find that skills gaps prohibit their business developing or growing specifically in terms of: delay in developing new products/services (61.0%), loss of business or orders to competitors (48.8%), having difficulties meeting customer objectives (43.4%), and having difficulties meeting quality standard (29.4%). Additionally, a third believed that skills gaps lead to an increase workload for other staff and a quarter found they encountered the problem of increase in operational costs.

## **5.2. Policy Recommendation**

To ease skills shortages and skills gaps and to improve the quality and efficiency of the labour market for the rapid growth of the economy and to respond to the current and future skills demand of the economy, especially the needs of emerging industries and relocating foreign direct investment, the following policy recommendations are proposed.

### **In the short- to medium-term:**

- To provide consistent and effective support to all the national development drives as well as mobilizing engagement and support, and to reduce coordination problems among stakeholders, skills development strategies must be aligned with national socio-economic, industrial, employment, education, and trade and regional integration strategies and policies.
- To be responsive to the skills demand of both the workforce and industry under rapid structural changes in the economy, and to align with the approaching socio-economic development strategy of the government and emerging global trends, the TVET development strategy should be expanded from a 'two-track' to a 'three-track' policy, as proposed by the draft "TVET Development Plan 2014–2018" produced as output from the ADB's Policy Study on "Cambodia TVET Policy Directions and Financing 2014–2018", which includes:
  - Poverty alleviation through access to basic skills (equity);
  - Skills to support industrial and economic development (economic);
  - TVET transformation.
- To enhance and upgrade the existing capacity of public institutions under the Ministry of Labor and Vocational Training by expanding competency based, accredited courses and training with a focus on:
  - Providing competency-based non-formal courses to people with low education levels to meet enterprises' and individuals' skills demands;
  - Introducing ITC-assisted training infrastructure, capability and resources (e-learning, mobile facilities, etc.);

- Modernizing and equipping the existing public training facilities and maximizing their capacity utilization, including arrangements for private or NGO training providers to jointly use public facilities.
- To expand the current skills bridging programme to formal TVET for students who are not able to finish grade 9 by equipping students with not only the foundation skills (literacy, mathematics, physics, etc.) but also the core soft skills which help to better prepare them for entry into the labour market, especially the industry sector.
- To expand support (e.g. scholarships, allowances, etc.) for the less privileged youth, especially those who are female, disabled, poor, and school drop-outs in rural and urban areas.
- To start implementing the Cambodia Qualification Framework (CQF) which lays the foundation for unifying the general education and TVET systems; and to introduce the quality assurance system, and competency and quality standards in the TVET to enhance quality and promote multiple pathways and progression in support of lifelong learning.
- To align CQF and standards with the regional qualification framework and standards to improve regional recognition and mobility of skills and labour after the ASEAN Economic Community is implemented in 2015.
- To develop an effective system to support smooth transition between training and work; and between informal, non-formal and formal TVET and higher education.
- To introduce a system for recognition of prior learning and work experience which provide incentives and pathways to lifelong learning for the workforce.
- To fully and actively engage and cooperate with the industry in planning; curriculum, course and skill sets design and development; and governance so that the skills supply responds to and stays up to date with current and future industry demands.
- To further improve and develop the capacity and standards of teachers and trainers to better equip them, especially with competencies, skills and practical workplace experience; and managers of the institution managers with management and leadership skills.
- To collaborate with regional and international training providers to introduce joint or dual programmes or certificates in order to improve the quality and image of training providers and courses as well as to acquire experience and promote mobility among graduates.
- To improve the perception and image, as well as the attractiveness of TVET by embarking on a nation-wide marketing, branding and communication strategy.
- To introduce career and vocational guidance and counselling into the general education curriculum in early grades and TVET so that students can better prepare themselves to acquire suitable skills and jobs.
- To promote Public Private Partnership (PPP) in TVET provision and resource financing

(e.g. levy grant); and provide investment incentives to private providers by modifying investment law to include TVET projects with lower value than the current limits set forth in the current law as qualified investment projects (QIP).

- To improve capacity in governance, management, coordination, and planning of the General Department of TVET of MoLVT.
- To improve resource planning, mobilization and allocation for the future efficiency and sustainability of TVET provision.
- To strengthen the TVET Management Information System (TVETMIS) and the Labor Market Information System (LMIS) for collecting and analysing data on skills demand and supply and anticipating future skills needed; and to improve the public employment service to facilitate smooth transition from school to work.
- To review related laws and regulations in order to consolidate the governance of TVET, and strengthen the role of NTB.
- To organize customized training, on-the-job training (“soft” and “hard” skills), and apprenticeships based on a closer collaboration/partnership between the government, the private sector, and the trade unions;
- To improve and expand public employment services to better match jobseekers with employers, and facilitate the transition from agriculture to industry and services; and
- To reconfigure/reconsider human resources management policies to devise attractive incentive/benefit packages (not only wages) and working conditions.

**In the medium- to long-term:**

- To achieve nine-year universal education, and expand and strengthen secondary education by focusing on science, technology, engineering and mathematics subjects (STEM), and higher education with a greater focus on scientific and engineering skills. More efforts should also be made in introducing R&D in the TVET sector with a focus on imitation, appropriate technology and innovation, and reverse engineering.
- To merge TVET with the general education system, and introduce foundation skills and employability skills in the school curriculum in early grades.
- To expand hard and soft training infrastructure, including digital infrastructure, based on the success model of developed countries implemented in the short- and medium-term.
- To progress to the medium and highly skilled, and [to promote] green skills to support industry, economic and social transformation in the country.



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# Appendix

## Appendix A- International Standard Classification of Occupations (ISCO)

The International Standard Classification of Occupations (ISCO) is one of the main international classifications, and was developed by the ILO. The 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 ten ISCO-08 major groups 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	2
7-Craft and related trades workers	
8-Plant and machine operators, and assemblers	
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, 1 <sup>st</sup> 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)

## Appendix B- 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
<b>Food and beverages</b>		1430	Manufacture of knitted and crocheted apparel
<b>10</b>	<b><i>Manufacture of food products</i></b>	<b>15</b>	<b><i>Manufacture of leather and related products</i></b>
1010	Processing and preserving of meat	1511	Tanning and dressing of leather; dressing and dyeing of fur
1020	Processing and preserving of fish, crustaceans and molluscs	1512	Manufacture of luggage, handbags and the like, saddlery and harness
1030	Processing and preserving of fruit and vegetables	1520	Manufacture of footwear
1040	Manufacture of vegetable and animal oils and fats	<b>Rubber and Plastics</b>	
1050	Manufacture of dairy products	<b>20</b>	<b><i>Manufacture of chemicals and chemical products</i></b>
1061	Manufacture of grain mill products	2011	Manufacture of basic chemicals
1062	Manufacture of starches and starch products	2012	Manufacture of fertilizers and nitrogen compounds
1071	Manufacture of bakery products	2013	Manufacture of plastics and synthetic rubber in primary forms
1072	Manufacture of sugar	2021	Manufacture of pesticides and other agrochemical products
1073	Manufacture of cocoa, chocolate and sugar confectionery	2022	Manufacture of paints, varnishes and similar coatings, printing ink and mastics
1074	Manufacture of macaroni, noodles, couscous and similar farinaceous products	2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
1075	Manufacture of prepared meals and dishes	2029	Manufacture of other chemical products n.e.c.
1079	Manufacture of other food products n.e.c.	2030	Manufacture of man-made fibres
1080	Manufacture of prepared animal feeds	<b>22</b>	<b><i>Manufacture of rubber and plastics products</i></b>
<b>11</b>	<b><i>Manufacture of beverages</i></b>	2211	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres
1101	Distilling, rectifying and blending of spirits	2219	Manufacture of other rubber products
1102	Manufacture of wines	2220	Manufacture of plastics products
1103	Manufacture of malt liquors and malt	<b>Construction</b>	
1104	Manufacture of soft drinks; production of mineral waters and other bottled waters	<b>41</b>	<b><i>Construction of buildings</i></b>
<b>Garment, Footwear and Apparel</b>		4100	Construction of buildings
<b>13</b>	<b><i>Manufacture of textiles</i></b>	<b>42</b>	<b><i>Civil engineering</i></b>
1311	Preparation and spinning of textile fibres	4210	Construction of roads and railways
1312	Weaving of textiles	4220	Construction of utility projects
1313	Finishing of textiles	4290	Construction of other civil engineering projects
1391	Manufacture of knitted and crocheted fabrics	<b>43</b>	<b><i>Specialized construction activities</i></b>
1392	Manufacture of made-up textile articles, except apparel	4311	Demolition
1393	Manufacture of carpets and rugs	4312	Site preparation
1394	Manufacture of cordage, rope, twine and netting	4321	Electrical installation
1399	Manufacture of other textiles n.e.c.	4322	Plumbing, heat and air-conditioning installation
<b>14</b>	<b><i>Manufacture of wearing apparel</i></b>	4329	Other construction installation
1410	Manufacture of wearing apparel, except fur apparel	4330	Building completion and finishing
1420	Manufacture of articles of fur	4390	Other specialized construction activities
<b>Transportation, Warehousing and Logistics</b>		<b>63</b>	<b><i>Information service activities</i></b>
<b>49</b>	<b><i>Land transport and transport via pipelines</i></b>	6311	Data processing, hosting and related activities

4911	Passenger rail transport, interurban	6312	Web portals
4912	Freight rail transport	6391	News agency activities
4921	Urban and suburban passenger land transport	6399	Other information service activities n.e.c.
4922	Other passenger land transport	<b>Finance and Insurance</b>	
4923	Freight transport by road	<b>64</b>	<i>Financial service activities, except insurance and pension funding</i>
4930	Transport via pipeline	6411	Central banking
<b>50</b>	<b><i>Water transport</i></b>	6419	Other monetary intermediation
5011	Sea and coastal passenger water transport	6420	Activities of holding companies
5012	Sea and coastal freight water transport	6430	Trusts, funds and similar financial entities
5021	Inland passenger water transport	6491	Financial leasing
5022	Inland freight water transport	6492	Other credit granting
<b>51</b>	<b><i>Air transport</i></b>	6499	Other financial service activities, except insurance and pension funding activities, n.e.c.
5110	Passenger air transport	<b>65</b>	<i>Insurance, reinsurance and pension funding, except compulsory social security</i>
5120	Freight air transport	6511	Life insurance
<b>52</b>	<b><i>Warehousing and support activities for transportation</i></b>	6512	Non-life insurance
5210	Warehousing and storage	6520	Reinsurance
5221	Service activities incidental to land transportation	6530	Pension funding
5222	Service activities incidental to water transportation	<b>66</b>	<i>Activities auxiliary to financial service and insurance activities</i>
5223	Service activities incidental to air transportation	6611	Administration of financial markets
5224	Cargo handling	6612	Security and commodity contracts brokerage
5229	Other transportation support activities	6619	Other activities auxiliary to financial service activities
<b>Accommodation</b>		6621	Risk and damage evaluation
<b>55</b>	<b><i>Accommodation</i></b>	6622	Activities of insurance agents and brokers
5510	Short term accommodation activities	6629	Other activities auxiliary to insurance and pension funding
5520	Camping grounds, recreational vehicle parks and trailer parks	6630	Fund management activities
5590	Other accommodation	<b>Education</b>	
<b>Information Communication Technology</b>		<b>85</b>	<b><i>Education</i></b>
<b>61</b>	<b><i>Telecommunications</i></b>	8521	General secondary education
6110	Wired telecommunications activities	8522	Technical and vocational secondary education
6120	Wireless telecommunications activities	8530	Higher education
6130	Satellite telecommunications activities	<b>Human health activities</b>	
6190	Other telecommunications activities	<b>86</b>	<b><i>Human health activities</i></b>
<b>62</b>	<b><i>Computer programming, consultancy and related activities</i></b>	8610	Hospital activities
6201	Computer programming activities	8620	Medical and dental practice activities
6202	Computer consultancy and computer facilities management activities	8690	Other human health activities
6209	Other information technology and computer service activities		



## Appendix C- Additional Tables and Figures

**Table C-1: Distribution of total employment by ISCO, 2008-2013**

	Male		Female		Total		Male	Female	Total
	2008	2013	2008	2013	2008	2013	Change between 2008 and 2013		
Absolute value (in thousands)									
Managers	31	40	7	8	42	49	10	1	7
Professionals	75	141	46	103	118	244	66	57	126
Technician and associated professionals	115	68	43	41	160	106	(47)	(1)	(54)
Clerical support workers	68	125	35	66	104	187	57	30	83
Service and sale workers	237	350	383	616	624	967	112	233	343
Skilled agricultural, forestry, and fishery workers	2,331	2,461	2,614	2,647	4,945	5,111	131	33	166
Craft and related trades workers	210	370	290	451	499	821	160	161	321
Plant and machine operators and assemblers	115	149	7	8	125	154	33	1	30
Elementary occupations	210	318	117	168	326	488	107	51	162
Total	3,393	4,022	3,542	4,104	6,935	8,125	629	561	1,190
Percentage composition (%)									
Managers	0.9	1.0	0.2	0.2	0.6	0.6	1.5	0.2	0.6
Professionals	2.2	3.5	1.3	2.5	1.7	3.0	10.5	10.1	10.6
Technician and associated professionals	3.4	1.7	1.2	1.0	2.3	1.3	(7.5)	(0.3)	(4.5)
Clerical support workers	2.0	3.1	1.0	1.6	1.5	2.3	9.0	5.4	7.0
Service and sale workers	7.0	8.7	10.8	15.0	9.0	11.9	17.9	41.5	28.8
Skilled agricultural, forestry, and fishery workers	68.7	61.2	73.8	64.5	71.3	62.9	20.7	5.8	14.0
Craft and related trades workers	6.2	9.2	8.2	11.0	7.2	10.1	25.4	28.7	27.0
Plant and machine operators and assemblers	3.4	3.7	0.2	0.2	1.8	1.9	5.3	0.2	2.5
Elementary occupations	6.2	7.9	3.3	4.1	4.7	6.0	17.1	9.1	13.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Institute of Statistics, Cambodia Population Census 2008 & Cambodia Population Inter-Censal Survey 2013

**Table C-2: Distribution of total employment in 2013 by sector and type of market**

<b>Sector</b>	<b>Local</b>	<b>National</b>	<b>International</b>	<b>Total</b>
<i><b>Absolute value</b></i>				
Accommodation	10,829	7,331	627	18,786
Construction	524	3,159	931	4,615
Education	4,162	8,361	-	12,523
Finance and insurance	6,390	12,120	1,993	20,502
Food and beverage	2,244	5,406	4,677	12,328
Garment, footwear, and apparel	907	14,017	316,615	331,539
Human health	9,232	7,216	-	16,448
ICT	-	3,863	833	4,696
Logistics, warehousing, and transportation	1,374	4,163	1,710	7,246
Rubber and plastics	1,669	2,026	12,630	16,324
Total	37,331	67,660	340,017	445,007
Average	32	47	594	140
<i><b>Row percentage</b></i>				
Accommodation	57.6	39.0	3.3	100.0
Construction	11.4	68.5	20.2	100.0
Education	33.2	66.8	-	100.0
Finance and insurance	31.2	59.1	9.7	100.0
Food and beverage	18.2	43.9	37.9	100.0
Garment, footwear, and apparel	0.3	4.2	95.5	100.0
Human health	56.1	43.9	-	100.0
ICT	-	82.3	17.7	100.0
Logistics, warehousing, and transportation	19.0	57.4	23.6	100.0
Rubber and plastics	10.2	12.4	77.4	100.0
Total	8.4	15.2	76.4	100.0
<i><b>Column percentage</b></i>				
Accommodation	29.0	10.8	0.2	
Construction	1.4	4.7	0.3	
Education	11.1	12.4	-	
Finance and insurance	17.1	17.9	0.6	
Food and beverage	6.0	8.0	1.4	
Garment, footwear, and apparel	2.4	20.7	93.1	
Human health	24.7	10.7	-	
ICT	-	5.7	0.2	
Logistics, warehousing, and transportation	3.7	6.2	0.5	
Rubber and plastics	4.5	3.0	3.7	
Total	100.0	100.0	100.0	

N=3,172

Source: NEA's ESNS 2014

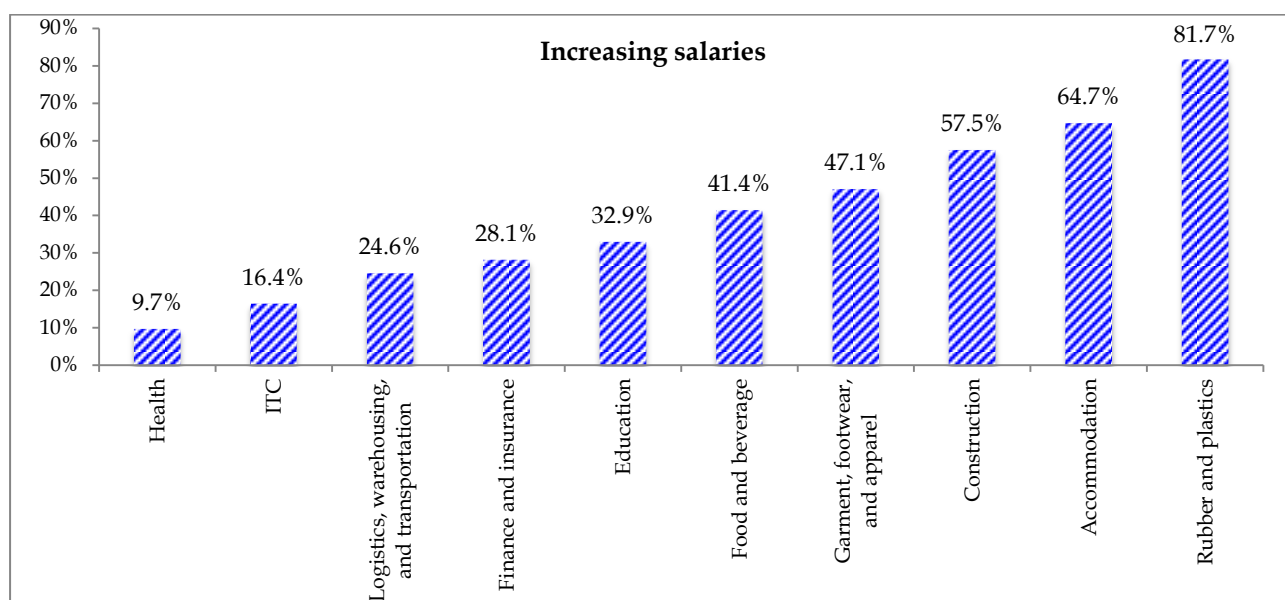
**Table C-3. Incidence and density of vacancy by sector, size of establishment, ownership, type of market, type of business entity and commercial registration**

	No. of sampled establishments	Current number of employment	Establishments with at least one vacancies		Vacancies		Vacancy density
			Abs. value	Percent age	Abs. value	Percent age	Percent age
<b>Total</b>	<b>528</b>	<b>114,284</b>	<b>317</b>	<b>60.0</b>	<b>8,047</b>	<b>100.0</b>	<b>7.0</b>
<b>Sector</b>							
Accommodation	78	7,219	50	64.1	737	9.2	10.2
Construction	58	3,278	30	51.7	423	5.3	12.9
Education	48	6,592	35	72.9	291	3.6	4.4
Finance and insurance	98	9,790	83	84.7	685	8.5	7.0
Food and beverage	68	4,543	31	45.6	588	7.3	12.9
Garment, footwear, and apparel	69	62,699	30	43.5	3,188	39.6	5.1
Human health	39	3,300	18	46.2	222	2.8	6.7
ICT	9	988	7	77.8	66	0.8	6.7
Logistics, warehousing, and transportation	14	1,265	7	50.0	70	0.9	5.5
Rubber and plastics	47	14,610	26	55.3	1,777	22.1	12.2
<b>Size of establishment</b>							
10-19	125	1,849	56	44.8	234	2.9	12.7
20-99	243	11,137	151	62.1	1,256	15.6	11.3
100+	160	101,298	110	68.8	6,557	81.5	6.5
<b>Ownership</b>							
Cambodian	382	44,306	224	58.6	3,785	47.0	8.5
Foreign	146	69,978	93	63.7	4,262	53.0	6.1
<b>Type of market</b>							
Local	162	12,316	100	61.7	1,114	13.8	9.0
National	265	25,050	155	58.5	1,939	24.1	7.7
International	101	76,918	62	61.4	4,994	62.1	6.5
<b>Type of business entity</b>							
Individual proprietor	158	14,187	82	51.9	1,005	12.5	7.1
General partnership	34	7,303	15	44.1	233	2.9	3.2
Limited partnership	39	11,188	29	74.4	818	10.2	7.3
Private limited company	165	55,700	100	60.6	4,205	52.3	7.5
Public limited company	63	8,736	54	85.7	832	10.3	9.5
State owned organization	44	6,370	28	63.6	335	4.2	5.3
Others	25	10,800	9	36.0	619	7.7	5.7
<b>Commercial registration</b>							
Registered	494	112,460	302	61.1	7,935	98.6	7.1
Not registered	34	1,824	15	44.1	112	1.4	6.1

*n*=528

Source: NEA's ESNS 2014

**Figure C-1: Proportion of establishments increasing salaries as measure to address hard to fill vacancies by sector**



Source: NEA's ESNS 2014

**Figure C-1: Proportion of establishments increasing the training given to your existing workforce as measure to address hard to fill vacancies by sector**



Source: NEA's ESNS 2014

## Appendix D: Employer Skills Needs Survey Questionnaire 2014

Good morning/afternoon. My name is.....I am from the National Employment Agency of the Office of the Council of Ministers. We are conducting a survey of employer, which aims to identify skills required and future skills need 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

1. Name of the establishment: \_\_\_\_\_

2a. Address of the establishment: no \_\_\_\_\_ street \_\_\_\_\_ village \_\_\_\_\_  
commune/sangkat \_\_\_\_\_ district \_\_\_\_\_ province/city \_\_\_\_\_

2b. Address of the establishment (if different): no \_\_\_\_\_ street \_\_\_\_\_ village \_\_\_\_\_  
commune/sangkat \_\_\_\_\_ district \_\_\_\_\_ province/city \_\_\_\_\_

3. Name of contact person \_\_\_\_\_ 4. Position of contact person \_\_\_\_\_

5. Contact person (Tel. no.) \_\_\_\_\_ 6. Office Tel. no. \_\_\_\_\_

7. Contact person (email) \_\_\_\_\_

*If the interviewee is different from contact person*

8. Name of the interviewee \_\_\_\_\_ 9. Position of the interviewee \_\_\_\_\_

10. Interviewee phone no. \_\_\_\_\_ 11. Interviewee's office tel. no. \_\_\_\_\_

12. Interviewee (email) \_\_\_\_\_

A.2. When did your establishment start business? Month: |\_\_|\_\_| Year: |\_\_|\_\_|\_\_|\_\_|

A.3. Has your establishment been registered at the Ministry of Commerce or Provincial Department of Commerce?  
1- Registered 2- Not registered

A.4. The establishment is a/an:

Individual proprietor	1
General partnership	2
Limited partnership	3
Private limited establishment	4
Public limited establishment	5
Subsidiary of a foreign establishment	6
Branch of a foreign establishment	7
Commercial representative office of a foreign establishment	8
Cooperative	9
State owned organization	10
Non-Governmental Organization	11
Others	12

A.5. The establishment is a: 1- Single unit 2- Head office 3- Branch office

A.6. The establishment is owned by 1- Cambodian 2- Foreigner (Please specify nationality:\_\_\_\_)

A.7. Could you please briefly describe the main business activity of the establishment, and indicate your main products or services, and your customers:

---



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Code ISIC: |\_\_|\_\_|\_\_|\_\_|

A.8. Are your products or services sold primarily to:

- 1-Local market
- 2-National market
- 3-Outside Cambodia

## Section B- Market development and capacity

**B.1. Could you please give an assessment of demand for your goods/services/production?**

	Decreased	Unchanged	Increased
2013	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2014	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2015	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**B.2. Could you please give an assessment of capacity utilization among personnel in your establishment?**

(Percentage)	Less than 60	60-69	70-79	80-89	90-99	100
Capacity utilization						

## Section C- Employment

**C.1. 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)

	31/12/2011	31/12/2012	31/12/2013	Present	31/12/2014	31/12/2015
Total	_____	_____	_____	_____	_____	_____
Female	_____	_____	_____	_____	_____	_____

**C.2. Could you please indicate the number of persons expected to be recruited and staff turnover at your establishment?** (State the number of persons and make an estimate about the future)

	2013	2014	2015
- 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)	_____	_____	_____

**C.3. 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):

Occupation categories	Number of people (Please write 0 if not applicable)					
	31/12/2012		31/12/2013		Present	
	T	F	T	F	T	F
<b>Managers</b> (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)						
<b>Professionals</b> (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)						

<b>Technicians and associate professionals</b> (This category performs mostly technical and related tasks connect with research and application of scientific, artistic, or operational methods. These occupations, which typically require skills at upper secondary or tertiary education, include industrial robot controllers, photographers and medical assistants)						
<b>Clerical support workers</b> (This category performs clerical duties with associated with money-handling operations, travel arrangements, requests for information and arrangement. Most of these jobs, such as secretaries, cashiers, or transport clerks, require skills at least lower secondary education)						
<b>Service and sale workers</b> (This category provides personal services related to travel, housekeeping, catering, personal care, or protection, or they demonstrate and sell goods. Most occupations require skills at least lower secondary education)						
<b>Skilled agricultural, forestry, and fishery workers</b> (This group includes occupations that require skills at least secondary education or equivalent critical skills and knowledge such as crop growers, gardeners and dairy and livestock producers)						
<b>Craft and related trades workers</b> (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 builders, bricklayers, plumbers, or electronic mechanics require a substantial period of training)						
<b>Plant and machine operators, and assemblers</b> (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)						
<b>Elementary occupations</b> (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 cleaners, building caretakers, doorkeepers or laborers do not require formal education qualification).						

## Section D – Employers’ perception on first time job seeker

**D.1. 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

**D.2. In the last 12 months has your establishment hired any first time job seekers that were leaving secondary school; technical and vocational schools; or university?**

Yes	1	Go to D.3
No	2	Go to E.1

**D.3. Have any of these been....,**

	Yes	No
First time job seekers coming from secondary school	1	2
First time job seekers coming from technical and vocational school	1	2
First time job seekers coming from university or other higher education institution	1	2



**FOR EACH ANSWERED YES IN D.3, GO TO D.4**

**D.4. How well did they prepare for work for each category?**

	Very well prepared	Well prepared	Prepared	Poorly prepared	Very poorly prepared
Firs job seekers coming from secondary school	1	2	3	4	5
Firs job seekers coming from technical and vocational school	1	2	3	4	5
Firs job seekers coming from University or other Higher Education institution	1	2	3	4	5

**IF THE PREPARATION FOR WORK OF THE NEWLY HIRED WAS EVALUATED 4 OR 5, GO TO D.5. OTHERWISE, GO TO E1**

**D.5. 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):**

	Firs job seekers coming from secondary school	Firs job seekers coming from technical and vocational school	Firs job seekers coming from University or other Higher Education institution
Literacy/numeracy skills	1	1	1
Poor education	2	2	2
Lack of common sense	3	3	3
Poor attitude / personality or lack of motivation (e.g. poor work ethic, punctuality, appearance, manners)	4	4	4
Lack of working world / life experience or maturity (including general knowledge)	5	5	5
Foreign language skills	6	6	6
Communication skills	7	7	7
Team work skills	8	8	8
Technical or job specific skills	9	9	9
Basic IT skills	10	10	10
Problem solving skills	11	11	11
Taking initiative	12	12	12
Other (Please specify_____)	13	13	13

## Section E-Skills Gaps and Workforce Training

**E.1. 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.7

**E.2. 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:_____		

**E.3. 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

**E.4. Among your employees who are not able to do their jobs at the required level, which, if any, of the following skills need to be improved?** (Select up to five skills for each occupation)

Skills	Occupations				
	Occ 1	Occ 2	Occ 3	Occ 4	Occ 5
Literacy	1	1	1	1	1
Numeracy	2	2	2	2	2
IT literacy /using IT	3	3	3	3	3
Advanced IT application/development	4	4	4	4	4
Oral communication	5	5	5	5	5
Written communication	6	6	6	6	6
Public speaking/instructing/training	7	7	7	7	7
Customer handling	8	8	8	8	8
Team working	9	9	9	9	9
Taking initiative	10	10	10	10	10
Knowledge of a foreign language	11	11	11	11	11
Solving complex tasks/problems	12	12	12	12	12
Planning and organizing	13	13	13	13	13
Management responsibilities/taking a lead	14	14	14	14	14
Adapting to new equipment/materials	15	15	15	15	15
Learning new ideas, methods, concepts	16	16	16	16	16
Manual dexterity	17	17	17	17	17
Clerical/administrative tasks	18	18	18	18	18
Pro-environmental tasks (e.g. resource efficiency, saving energy or water, limiting pollution/ waste, recycling, etc.)	19	19	19	19	19
Other job-specific tasks (_____)	20	20	20	20	20

**E.5. Impact of lack of proficiency among staff** (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
None	11

**E.6. Action taken to overcome lack of proficiency among staff** (select all relevant answers)

Increase training activity/ spend or increase/ expand training programmes	1
More supervision of staff	2
More staff appraisals/ performance reviews	3
Implementation of mentoring/buddying scheme	4
Reallocating work	5
Changing working practices	6
Increase recruitment activity/spend	7
Recruiting worker who are non-Cambodian nationality	8
No action	9
Other (please specify.....)	10

**E.7. 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	<b>Go to E.8</b>
No	2	<b>Go to F.1</b>

**E.8. 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?**

	YES	No
Training plan	1	2
Training budget	1	2
Both	1	2

**E.9. In which areas did your establishment finance or arrange the training?**

Basic computer literacy / using IT skills	1
Advanced IT or software skills	2
Oral communication skills	3
Written communication skills	4
Customer handling 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
Induction training	15
Occupational health and safety	16
Accounting and Finance	17

Human Resource Management	18
Other skills (please specify.....)	19

**E.10. Did your establishment experience difficulties in organizing the courses or in finding the trainers?**

Yes	1	<b>Go to E.11</b>
No	2	<b>Go to F.1</b>

**E.11. What were the main reasons of the difficulties?**

Reasons	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	4

**Section F - Vacancies**

**F.1. In this moment and in the next 6 months do or will you have vacancies?**

Yes (Number of vacancies.....)	1	<b>Go to F.2</b>
No	2	<b>Go to G.1</b>

F.2. 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)

Occupation			Number of employees will be recruited								Wage and other benefit/allowances						
ISCO Code	Occupation names	Number of people currently employed in this occupation	No of employees is being or will be recruiting	Recruitment situation: 1-Very easy 2-Easy 3-Normal 4-Difficult 5-Very difficult	Vacancies with lack of labour (Current number)	Ask only occupation with difficult and very difficult recruitment situation								Based wage/salary		Benefits/allowance	
						Reason for recruitment difficulty answer (up to 5 options)				Skill Lacking (up to 5 options)				Min	Max	Min	Max
A	B	C	D	E	F	G				H				I			
	1.																
	2.																
	3.																
	4.																
	5.																
	6.																
	7.																
	8.																
	9.																
	10.																

Note:

- 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

- Skill Lacking (up to 5 options)**
- 1-Basic computer literacy / using IT
  - 2-Advanced IT or software skills
  - 3-Oral communication skills
  - 4-Written communication skills
  - 5-Customer handling 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

**F.3. Are hard-to-fill vacancies causing this establishment to... (You can select all relevant answers)**

<b>Effects on business</b>	
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
None	11

**F.4. 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
<b>Increase labour productivity in the establishment</b>	10
<b>Increase working hours in the establishment</b>	11
Nothing	12
Other (please specify.....)	13

## **Section G – Establishment's Business strategy**

**G.1. Does your establishment plan to introduce new products, services, technologies or expand/switch to new markets?**

1- Yes

2-No (End interview here)

**G.2. Linked to these plans, does your establishment plan to apply any of the following measures to address newly emerging tasks? Select all that apply**

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!*

## **Skills Shortages and Skills Gaps in the Cambodian Labour Market: Evidence from the Employer Skills Needs Survey.**

In 2014 the National Employment Agency of National Training Board in Cambodia conducted an Employer Skills Needs Survey. More than 500 establishments were interviewed at the national level across 10 important sectors, which were major driving engines of employment generation as well as having greater share in Cambodian GDP: 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).

The paper finds the existence of skills shortages, as well as vacancies that are hard to fill. The underlying reasons for these hard-to-fill vacancies stem from jobseekers being insufficiently skilled or experienced, and from competition in recruitment from other enterprises. At the same time, establishments reported underperformance by the current workforce as being attributable to a lack of motivation, unfamiliarity with the job at hand, and insufficient training. The paper considers realistic short-terms measures that need to be put in place to support workforce and enterprise development, as well as long-term measures that would enable Cambodia to upgrade and diversify its production base.

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