



SKILLS FOR PRODUCTIVITY
AN ANALYSIS OF EMPLOYER SKILLS SURVEY 2011

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1. INTRODUCTION AND OBJECTIVES

1.1. Introduction

The Vietnam employer skills survey 2011 is the data source on employers' demand for cognitive, non-cognitive, and technical skills in Vietnam. It is the first country-level employer skills survey undertaken by CIEM and the World Bank with supports by the BNPP Trust Fund approved proposal "Measuring Skills and Knowledge for Greater Growth and Competitiveness" and the Korean Trust Fund (KTF). Robust and reliable information from the employer skills survey in Vietnam serves as an important tool to identify the skill sets that are highly valued in the labor market, and generate policy options to design effective training programs to boost employability and productivity.

A random sample of the 330 firms in the formal sector was stratified on a employee size, sector, legal status and geographic distribution basis. The survey was sampled by WB, using data of the 2009 enterprise census conducted by GSO. On the informal sector, the sample (22 firms) was randomly chosen from household firm data provided by provincial Departments of Planning and Investment (DPIs). The household firms sample was selected across subsectors, geographical regions, and size of employees (by below 10 workers and over 10 workers). During November and December of 2011, 352 employers were surveyed by face to face.

This report provides an early snapshot of emerging findings of employers' demand for skills, using the employer skills survey 2011. In this survey, occupations are categorized into two types of occupation: (i) *Occupation type A* with 3 positions consists of Managers, Professionals and Technicians; and (ii) *Occupation type B* with 7 positions consists Clerical support workers, Service workers, Sales workers, Skilled agricultural and fishery workers, Craft and related trade workers, Plant and machine operators and assemblers, and Elementary occupations workers. Employers were asked about two occupation positions that are in two occupation types A and B.

The following is some of the key issues emerging from this report:

- *Changes of firms' employee size*: Over the past 12 months, 51.7% of firms say their employee size were steady, 29.8% of employers have increase in their employee size, but 18.5% of employers reflect that their firms downsized or laid off employees within the last year. The majority of downsized workplaces are small firms.
- *Difficulty in recruiting new employees*: In general, the majority of surveyed firms have had difficulties in recruiting new employees. The problem of "Applicants lacked required skills" is commonly experienced among all occupations.
- The *workforce structure* reflects a prevalence of employing unskilled workers in the firms.
- *Skills used in the surveyed firms*:
 - o The skill of "reading" and the skill of "interacting with a team of co-workers" to all occupation positions are required by most of firms. The skill of "speaking a foreign language" is regularly used just in few numbers of firms.
 - o Skills of computer use: Grade of specialized is mostly for occupation position of professionals. For occupation type B, computer use level of clerical support workers is higher than those of other occupation positions.
- Generally, the firms' rules of *working on time* are seriously implemented.

- *Monthly gross compensation of employees:* Occupation type of professionals received the highest monthly gross compensation. The lowest compensation level is for elementary occupation workers.
- *The highest education level of workers:* The high education level is mostly from occupation type A. Among occupation type B, clerical support workers and sales workers have higher education level compared to the remainders.
- *Importance of personal characteristics/ job-related skills/ personality traits:* The employers put different emphasis on personal characteristics/ job-related skills/ personality traits when they decide to retain new employees for occupational positions. Specifically:
 - In terms of personal characteristics: “age” and “family relations/ personal ties” are two personal characteristics ranked as the most important criteria to occupational type A positions. “gender” and “age” are the most important criteria of personal characteristics to most of occupation type B positions
 - In terms of job-related skills: “Leadership skills” is a priority when deciding to retain new employees for position of “manager”; “Job-specific technical skills” is highly ranked to the positions of professionals and technicians. “Job-specific technical skills” is also highly ranked to the positions of Clerical support workers, Skilled agricultural and fishery workers, Craft and related trade workers, and Plant and machine operators and assemblers. “Communication skills” is highly prized to Service workers and sales workers and Elementary occupation workers.
 - In terms of personality traits: “conscientiousness” is ranked as the most important personality trait by most employers.
 - Among three groups, the group of “job-related skills” is appreciated by most of employers.
- *Sources for new workers recruitment:* informal channels are most used in the surveyed firms. Just 17% and 11% of firms use the source from direct contact with educational institutions, schools, training centers, universities...for recruiting occupational type A and B positions corresponding.
- *Education level of the most recent recruits:* Commonly, the majority of occupational type A recruits has the level of second stage of tertiary education; and the majority of occupational type B recruits have the education level of upper secondary.
- *Using contractors:* Although some employers face skills shortages, but they try to employ workers whose skills satisfy firms’ requirements or change their production, but not use contractors due to skills shortages.
- *Contacts with educational or training institutions:* The proportion of employers who contact with educational or training institutions regarding positions of professionals and technicians are the highest compared to those of the remainder positions. Commonly, the main purpose of contact with educational or training institutions is recruitment.
- *Training on the workplace premises:* Both occupational A workers and occupational B workers received the most share of “on the job training” among types of training on the workplace premises.
- *Formal training outside the workplace:* Just small proportion of employers provided opportunities of formal training outside the workplace for their employees last year.

The employees who received opportunities of formal training outside the workplace are mostly positions of occupational type A.

- *Assessment of the technical and vocational training education system and the general education system:* In views of the majority of the surveyed employers, the technical and vocational training education system as well as the general education system does not meet the skill needs of firms.
- *Remuneration:* The survey shows that remuneration forms of fixed salary and bonus are common for both occupational types A and B.
- *Financial performance and prospects of the firms:* Business operations of a large proportion of firms are in the unfavourable period. In the coming three years, the majority of employers do not express high expectation of their business. In addition, although average number of employees in the most recent year is lower 8% than that in one year ago, but the firms' expenses are higher than those of one year ago.
- *Labor factors and their impacts on the business operation and growth of the firms:*
 - o Generally, deficiency of previous experiences of workers and high job turnover are problematic to the firms' operation and growth.
 - o Except the issues of "access to financing" and "Economic and regulatory policy uncertainty, Macroeconomic Instability", the other issues are less problematic to the firms' business doing compared to the labor issues.
- *Innovation in the surveyed firms:*
 - o 179/352 employers (about 51%) report that their firms worked on new characteristics during the last three years
 - o During the innovation process, the step of "develop the product" is considered as a challenge faced the majority of firms.
 - o Interests in or needs for "training for technology use" are responded by the highest proportion of firms.
 - o Firms' cooperation with outside partners related to innovation is limited.
 - o The help of "Access to developed technologies for absorption and adaptation" from research institutes and universities is the most wanted by the firms.
- *Capacity building for employees:*
 - o The way of capacity building by "providing employees with updated working and learning materials and tools" is the most implemented by the firms during the last three year.
 - o Product development, Production and Human resource development are the most wanted among 12 needs for building the capacity to innovate via training of employees.
- *Financing science and technology:* Although many firms have need for innovation capacity building, but their participation in competitive grant is very limited.

1.2. Objectives

The objective of the Vietnam employer skills survey 2011 was to gather information about the skills and employers' demand for cognitive, non-cognitive, and technical skills. Specifically, the survey was to seek to ascertain:

- firms' characteristics, the present skills set used by firms;
- the types of skills that need to be filled;
- the set of methods used by firms to employ workers;
- the criteria used for promoting staff;

- the employers' views of education, training, skills levels and future labour demands;
- the employers' views of how to enhance the linkages between education and industry.

2. METHODOLOGY

2.1. Sampling strategy

Sample frame

The survey was designed to provide statistically valid baseline data. On the formal sector, the initial sample (330 firms) and the reserve sample (132 firms) were stratified by the World Bank, using GSO's dataset of the enterprise census 2009. The sample of employers was stratified across industries and geographical regions, by the size of workplace (i.e. number of employees) and by type of ownership to ensure that it would be as representative of the business population as possible. On the informal sector, the sample (22 firms) was randomly chosen from household firm data provided by provincial Departments of Planning and Investment (DPIs). The household firms sample was selected across industries, geographical regions, and size of employees (by below 10 workers and over 10 workers). In total, 352 employers were interviewed.

Steps of firm replacement

With the stratified sample provided by the World Bank, the CIEM team identified the firms with information of firm's location (province), name, address, main subsector (industry), and ownership type. In this initial sample, there are a proportion of firms that could not be identified or closed or refused interviews. This can be explained by the following reasons:

- Information of firms is not available in the GSO's enterprise census.
- Firms closed (informed or did not inform to the local agencies).
- Firms moved to another location, but did not inform to the local agencies.
- The contact details of firms are available, but the CIEM could not contact them by phone and post. This can be because their contact details are inexact, or they moved to another location, or closed.
- Firms are in serious business troubles, and preparing procedures for closing their firms.
- Firms are facing business troubles due to economic recession, thus they decidedly refused interviews.
- The survey was conducted at the end of the year, thus the CIEM met many difficulties when requesting for interviews.

For such firms, the CIEM had to use the reserve samples for firm replacement. The replacing firms were selected on the basis of geographical location and subsector (industry) so as to equivalently replace non-responding/non-identified firms in the initial sample. Because a large number of equivalent firms in the reserve samples closed or could not be identified, the CIEM had to use two reserve samples. Details of the stratified sample, the reserve samples, and the final sample are submitted in a separate file.

2.2. Fieldwork method

Pilot survey

Before starting the fieldwork, the CIEM carried out a pilot survey to look at the questionnaire and to see how it works for different ownership types of the firms in different sectors as well as the length of the interview. The firm survey was pilot-tested on 1 firm from each sub-sector, selected from the stratified sample for formal sector. Accordingly, 14 firms in 14 sub-sectors were interviewed. Locations for the pilot survey are Hanoi and Hai Duong.

The CIEM conducted face-to-face interviews with owners/managers of the selected pilot firms. With results from the pilot survey, the CIEM proposed adjustments for the questionnaire.

Training to fieldwork

To conduct the firm survey, the CIEM strictly followed the interviewer's manual. The CIEM established a survey management team (consisting of 2 staff – see Annex 1) and an interviewer team (consisting of 11 staff- see Annex 1). A member (see Annex 1) was assigned to be data entry operator. All interviewers have good understanding, communication skills and high interviewing experiences. The CIEM organized a 2-day training course for all interviewers to provide them very detailed instructions of the purpose of the survey, the questionnaire, the manual, and other noteworthy issues. Materials provided to the interviewers include questionnaire, the manual (in both English version and Vietnamese version), and the form of summary report (in Vietnamese). After the course, all members of the interviewer team fully understand the instructions and the contents of questionnaire.

Steps of undertaking the survey

On the firm sample stratified by the World Bank, the CIEM used “firm ID” to identify tax codes for the firms in the sample. With the identified tax codes, the CIEM team based on the data source from the General Office of Tax to identify names of the firms or their current business situation (still operating or closed). At the same time, CIEM also cooperated with Business registration section of provincial Department of Planning and Investment (DPIs) to identify the changes of the firms in terms of business activities, contact details and address. However, there is a rather high proportion of firms whose tax codes, addresses, contact details or business operation situations are not available in data sources from GSO, the General Tax Office or provincial DPIs. The CIEM also used services of switchboard 1080 in the selected provinces to make out exact addresses as well as contact details of the firms. For the firms whose information was available, but the interviewer team could not reach them by phone, the interviewer team also visited some firms' places according to the old addresses; however most of these firms are not be there or closed.

The CIEM contacted the firms by two ways:

- The CIEM prepared the official letter and directly sent to the firms. The official letter specified the purpose of the survey, importance of the project, importance of firms' cooperation and contents of the interview. Questionnaire was attached to the official letter. After sending the official letter, interviewers contacted the firms and persuaded them to arrange meetings for interview.

- In some provinces, the provincial DPIs helped the CIEM to contact the firms. The official letter was also sent to the firms. DPIs' staff contacted the firms in advance, and the interviewer team re-contacted the firms later to confirm the meeting.

Prior to visiting each firm's place, interviewers again made phone calls to the firm to confirm the meeting as well as its address. The members of the survey management team participated in some interviews in order to instruct the interviewers as well as supervise their performance of interview.

After completing an interview, the interviewers intermediately revised and cleaned the filled questionnaire to ensure that all questions are answered with obtained information. At the same time, the interviewers also prepared a summary of results of the conducted interview to report to the survey management team.

2.3. Data management

Data cleaning

Data cleaning was double-checked. Interviewers cleaned each of questionnaires before submitting to the survey management team. Members of the survey management team checked and cleaned again before returning them to interviewers for data entering.

Data entering

The template for data entry was designed in Excel by the data entry operator. Interviewers carried out data entering for their cleaned questionnaires on the template. The data entry operator was assigned with synthesizing dataset and transfer into Stata program.

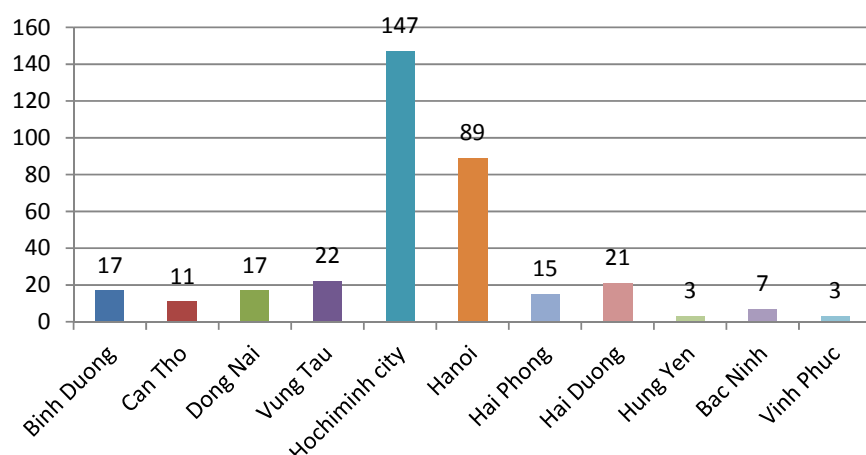
Data report

Data report was prepared by a group of members. The CIEM organized some group seminars to make the outline and discuss contents need to be analyzed in the report. A member was assigned with synthesizing the parts into the report. The draft report was sent to all members of the CIEM team for comments. On the comments from the CIEM team members, the CIEM drafting group revised the report prior to submitting it to the World Bank.

2.4. Characteristics of the sample of employers

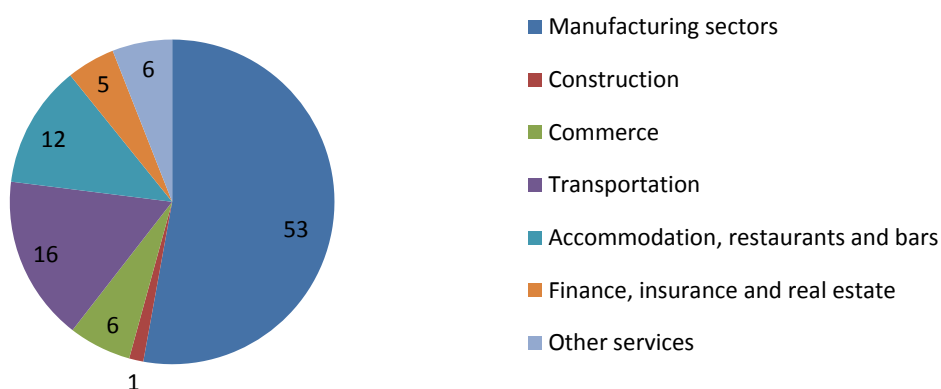
The final sample of employers was randomly chosen. Figure 1 shows the number of firms by geographical region.

Figure 1. Number of firms by province



In terms of industry sector, the distribution of employers who participated in the survey is shown in Figure 2 below. The majority of responses came from the manufacturing industry (53%). The next ones came from transportation (16%) and from sector of accommodation, restaurants and bars (12%). The smallest proportion was for construction (1%).

Figure 2. Distribution of firms by industry (by percentage)



More specifically, the number and incidence of interviewed employers by sub-sector are indicated in Table 1.

Table 1. Number and incidence of firms by sub-sector

Industry		Number of interviewed firms	Incidence (%)
Manufacturing sectors	Food processing	35	9.9
	Textiles	1	0.3
	Garments	52	14.8
	Woods and woods products	10	2.8
	Chemical and chemical products	14	4.0
	Rubber and plastic	26	7.4
	Machinery and equipment	8	2.3

	Office, accounting and computing machinery	1	0.3
	Electrical machinery and apparatus	13	3.7
	Electronics	3	0.9
	Automobile and parts	1	0.3
	Furniture	16	4.5
	Other manufacturing sectors	6	1.7
Construction	Construction	5	1.4
Services sectors	Commerce	22	6.3
	Transportation	58	16.5
	Accommodation, restaurants and bars	43	12.2
	Finance, insurance and real estate	17	4.8
	Other services (computer related activities (mostly)/post services/ logistic services/ repairing and maintaining services/consutancy...)	21	6.0
Total		352	100

This survey also looked at the firms across formal sector (with 330 firms) and informal sector (with 22 households firms). In terms of legal status, the sample of employers was randomly selected as follows (see Table 2).

Table 2. Number and incidence of firms by legal status

Legal status	Number of employers	Incidence (%)
Sole proprietorship	34	9.7
Joint venture company	9	2.6
Family association/household	22	6.3
Limited liability corporation (privately held)	166	47.2
Corporation listed on stock exchange	14	4.0
Joint stock company (not listed on stock exchange)	60	17.0
State owned company	9	2.6
100% foreign owned company	31	8.8
Part of Multi-national firm	1	0.3
Cooperative	4	1.1
Partnership	1	0.3
Other	1	0.3
TOTAL	352	100

On stratification by employee size, the sample is as below (see Table 3):

Table 3. Number of firms by employee size

Size of employees	Number of firms in formal sector	Number of firms in informal sector
01-10	72	17
11-50	117	5
>50	141	0

3. KEY FINDINGS AND ANALYSIS

3.1. MODULE 1 – BASIC INFORMATION & WORK FORCE

(1) Job title of respondents who participated in the survey

The survey aimed to interview respondents who are owner/CEO/manager for a workplace with fewer than 20 employees. For larger establishments, interviewees were expected to be the Human Resource Manager and Production Manager or CEO/Owner/General Manager. It was up to the business to nominate a suitable person to talk to the interviewer. The range of job titles of interviewees is set out in Table 4 below.

Table 4. Number of respondents by job titles

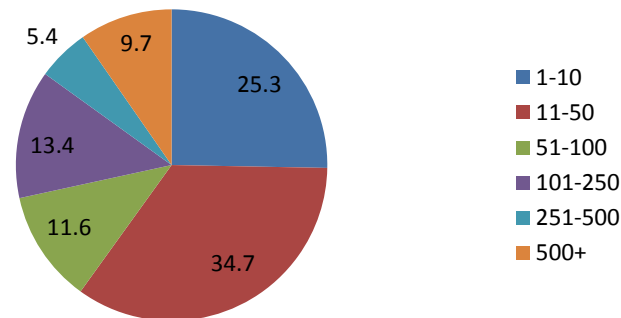
Job titles	Number of respondents	Incidence (%)
Human Resource (HR) Manager	85	24.1
Owner/Proprietor	41	11.6
President/ Vice President/ Chief Executive Officer (CEO)	28	8.0
Partner	1	0.3
Director	25	7.1
General Manager	35	9.9
Finance Officer	53	15.1
Manager	65	18.5
Other	19	5.4
TOTAL	352	100

Of 19 people who were seen as “Other”, about half were administrative or technical staff, the remainders were personnel staff.

(2) Firms demographics

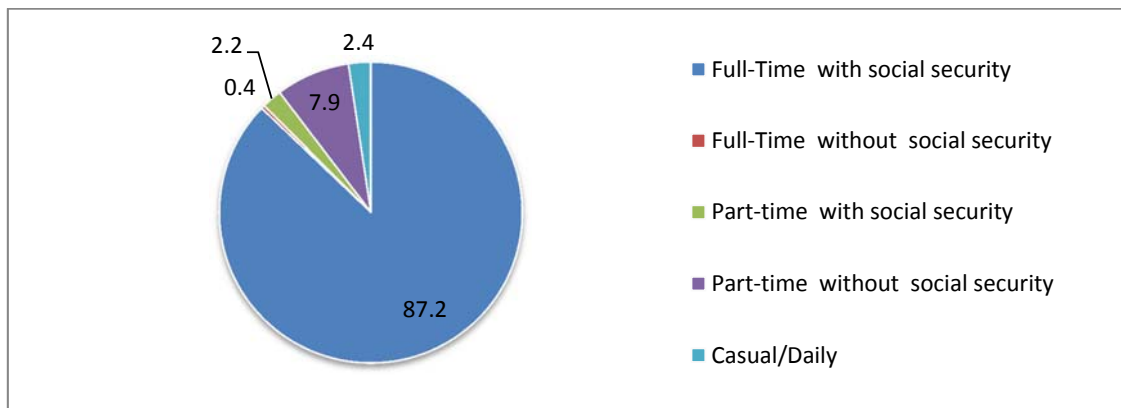
The employer survey shows that a high proportion of respondents (60%) are small firms with fewer than 50 workers. Of the 352 interviews completed, 71.6% of employers have fewer than 100 workers, and only 9.7% employed more than 500 workers (see Figure 3). This means that the majority of employers are small and medium firms.

Figure 3. Distribution of firms by employee size (by percentage)



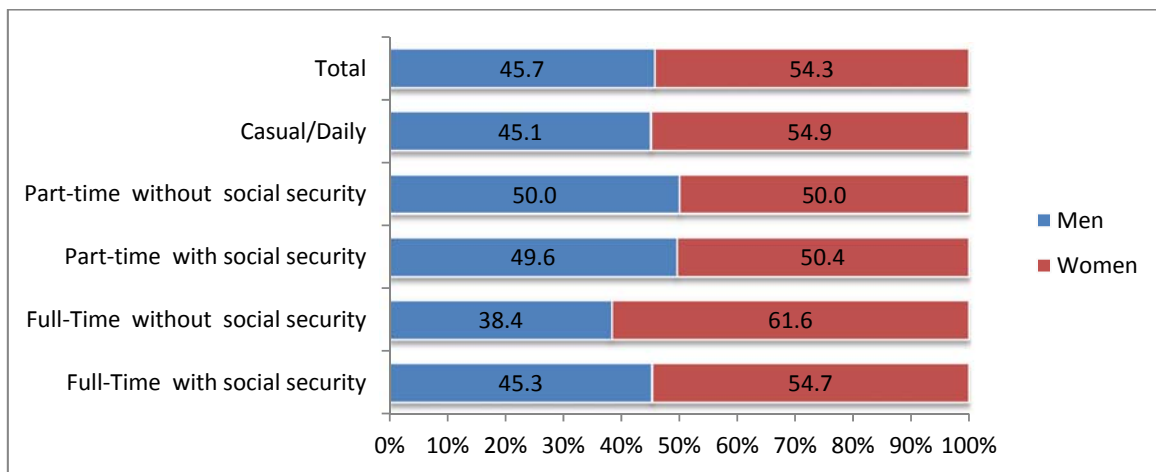
In terms of employment forms, the majority of workers in the interviewed firms work on the basis of the full time with social security (87.2%). The form of full time without social security only accounts for a very small proportion (0.4%). The proportion of casual workers in the surveyed firms is 2.4%. The remainders are employees whose jobs are part-time, specifically 2.2% for the form of part-time with social security and 7.9% for the form of part-time without social security (see Figure 4). These facts indicate that the workers are well protected with social security in the surveyed firms, especially in the medium and large firms. The casual workers are mostly employed by small firms in the sub-sectors of furniture and transportation.

Figure 4. Structure of employment forms in the surveyed firms (by percentage)



In respect of gender structure, Figure 5 shows that gender structure in the surveyed firms is quite balanced between men and women. The proportion of women in the interviewed firms even is slightly higher than that of men.

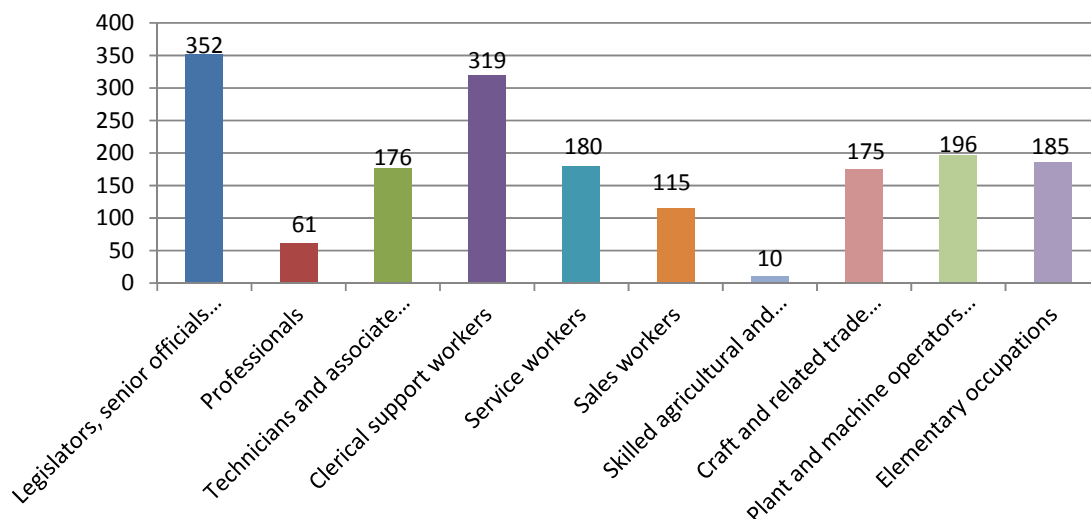
Figure 5. Gender structure in the surveyed firms (by percentage)



(3) Occupation types in the firms

When asked to breakdown primary occupations, 100% employers (352 firms) responded that they have position of “manager” in their business; 319/352 employers have position of “clerical support workers”. These are two occupation types that most of firms employed. The number of firms employing different occupation types is pointed out in Figure 6.

Figure 6. Number of firms employing occupation types

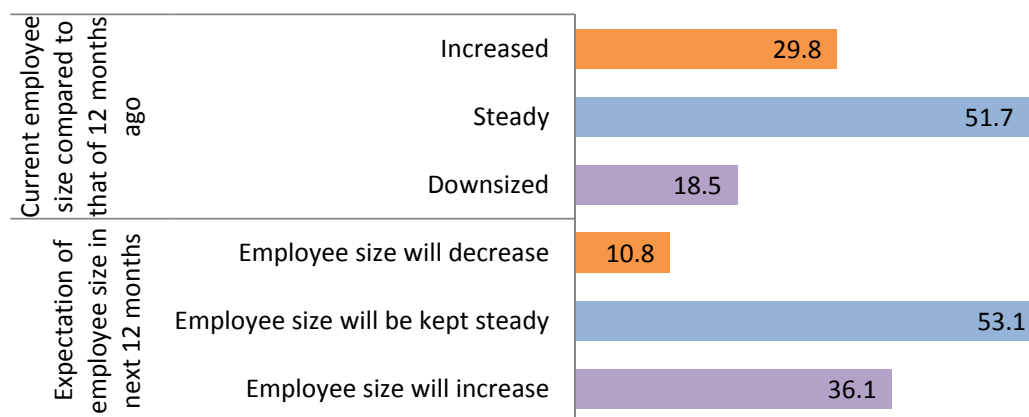


Notably, in manufacturing sector, 42/186 manufacturing firms (22.6%) have professionals; 40/186 firms have both positions of professionals and technicians; and 120/186 firms (64.5 %) have technicians and associate professionals.

When asked to compare the employee size in the firms 12 months ago, the current employee size and expected employee size in next 12 months, more than half of employers (51.7%) say their employee size were steady over the past 12 months, 29.8% of employers have increase in their employee size, but 18.5% of employers reflect that their organizations downsized or laid off employees within the last year (see Figure 7). Most of firms that downsized or laid off employees say that they have been affected by the economic

downturn. It is noteworthy that the majority of downsized workplaces is small firms. Over the past 12 months, 66.2% of downsized organizations are small firms with 100 or under employees; 24.6% are those with 101 to 500 employees; and the remainder (9.2%) are large firms with more 500 employees.

Figure 7. Proportion of firms by changes of employee size



In looking ahead to the next 12 months, 36.1% of employers expect their firms to increase their employee size by hiring additional employees; 53.1% expect their employee size to remain steady; and just 10.8% expect that their organizations will lay people off (see Figure 7).

However, respondents whose firms laid people off in the past 12 months are more likely say their firms will increase their employee size (77% increase, 16.9% keep steady and 6.1% decrease) than firms that did not downsize in the past 12 months (26.8% increase, 61.2% keep steady and 11.8% decrease). This can be because employers are expecting the recovery of the economy or are seeking for new business opportunities in the next year.

(4) Difficulty in hiring new employees:

The breakdown of recruiting new employees in 352 surveyed firms in the past 12 months is set out in Table 4. The survey shows that in past 12 months, on average, 52% of the firms had recruits for positions such as managers, professionals and technicians encountered difficulties when trying to recruit these positions; and 57% had recruits for the lower positions (namely Clerical support workers, Service workers, Sales workers, Skilled agricultural and fishery workers, Craft and related trade workers, Plant and machine operators and assemblers, and Elementary occupations). The facts given in Table 5 indicate that the majority of surveyed firms met problems in recruiting new workers.

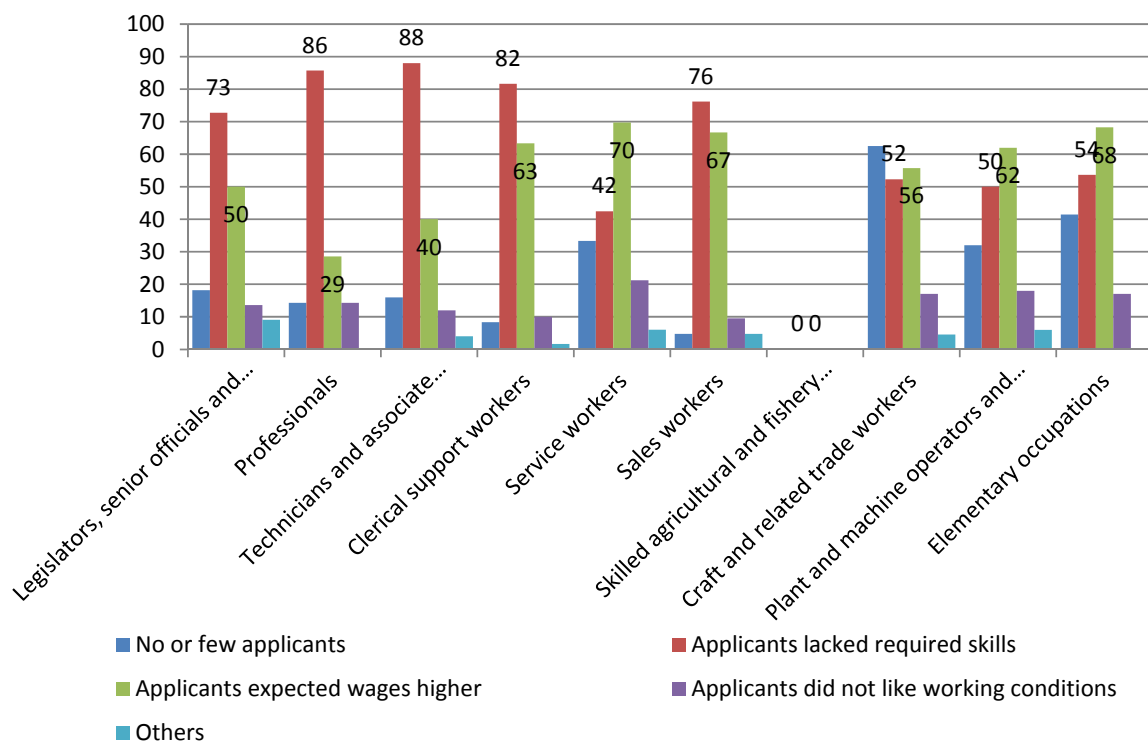
Table 5. Number of employers having recruitment, and number and incidence of employers encountering with problems of recruitment in the last 12 months

Occupational type	Number of firms having recruitment	Number of firms that encountered with problems of recruitment	Incidence (%)
Legislators, senior officials and managers	37	22	59

Professionals	16	7	44
Technicians and associate professionals	47	25	53
Clerical support workers	92	60	65
Service workers	63	33	52
Sales workers	39	21	54
Skilled agricultural and fishery workers	2	0	
Craft and related trade workers	134	88	66
Plant and machine operators and assemblers	83	50	60
Elementary occupations	90	41	46

Regarding problems that the employers have encountered when trying to recruit new employees, the picture is very different among occupation positions. Figure 8 indicates how problems vary by occupation positions and what specific difficulties that the firms have encountered.

Figure 8. Proportion of firms that encountered recruitment problems in the past 12 months by occupation positions and kinds of problem



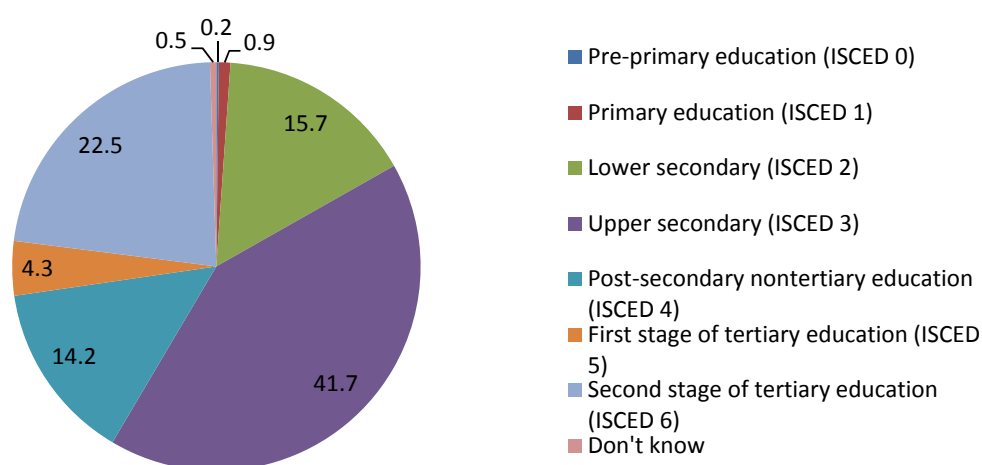
Looking at Figure 8, it is obvious that the problem of “Applicants lacked required skills” is commonly experienced among all occupations. This proves that skill gaps are major challenges for firms. Skill-shortages are particularly prevalent among occupations of technicians, professionals, clerical support workers and sales workers. Specifically, 88% of the firms having recruitment for position of technicians encountered problems of skill gaps, 86% for position of professionals, 82% for clerical support workers and 76% for sales

workers. Followed is the problem of “Applicants expected wages higher” (on average, 50% of the firms faced). The next problem (23% of the firms encountered on average) is “No or few applicants”. The remainders are “Applicants did not like working conditions” and “Others” (averagely 13% and 4% corresponding). In addition, many respondents, especially from manufacturing sector, report that some vacancies such as positions of technicians are hard to fill as a result of skill shortages among applicants.

(5) Workforce structure by education level

In terms of workforce structure by education level in 352 surveyed firms, Figure 9 shows that on average, 41.7% of workforce graduate from upper secondary schools; 22.5% have second stage of tertiary education; 15.7% graduate from lower secondary schools; 14.2% have post-secondary nontertiary education. This workforce structure reflects a prevalence of employing unskilled workers in the firms.

Figure 9. Workforce structure by education level



3.2. MODULE 2 – SKILLS USED BY THE CURRENT WORKFORCE

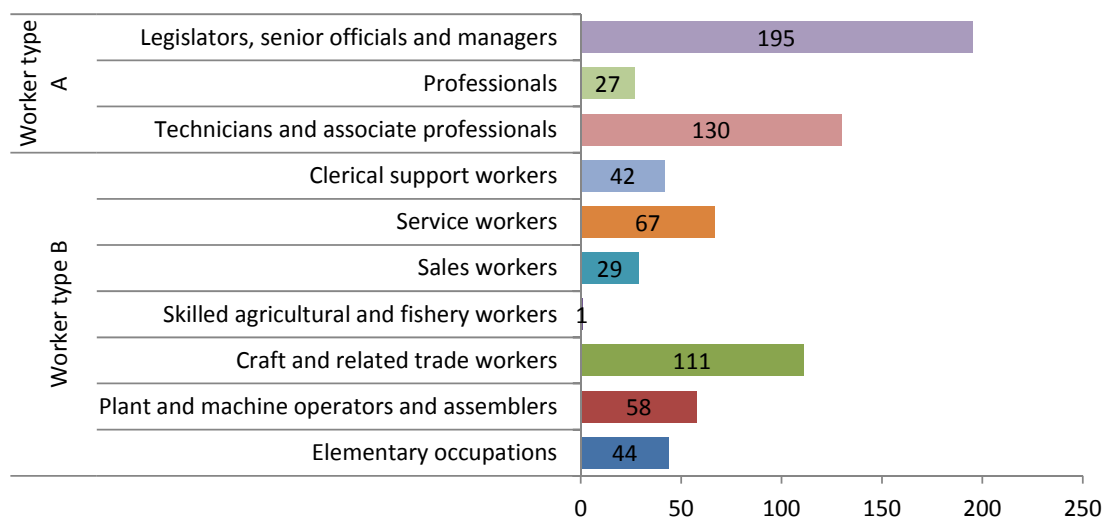
(1) Occupation types

In this survey, occupations are categorized into two types of occupation: (i) *Occupation type A* with 3 positions consists of Managers, Professionals and Technicians; and (ii) *Occupation type B* with 7 positions consists Clerical support workers, Service workers, Sales workers, Skilled agricultural and fishery workers, Craft and related trade workers, Plant and machine operators and assemblers, and Elementary occupations workers. Employers were asked about two positions that are in two occupation types A and B. Figure 10 shows frequency of occupation positions was randomly chosen to ask.

By randomly choosing of occupation positions, for occupation type A, 195/352 employers were asked about “Managers”, 27/352 were asked about “Professionals”, and 130/325 employers were asked about “Technicians”. For occupation type B, frequency of asked occupation position of “Craft and related trades workers” is the largest (111/352 firms), followed by Service workers (67/352), Plant and machine operators and assemblers

(58/352), Elementary occupations workers (44/352), Clerical support workers (42/352), Sales workers (29/352) and just 1/352 firms were asked about Skilled agricultural and fishery workers.

Figure 10. Frequency of occupation types (Number of employers were asked about occupation types)



(2) Skills used in the surveyed firms

When the survey comes to the skills that employees in firms may be using in their jobs, employers were asked about 8 skills. With occupation positions randomly chosen and used in the firms, employers answer the questions of used skills with Yes/No. As for the skill of computer use, employers were asked to grade skill level for their employees. The picture is very different when looking at what skill types are required to occupations.

A. Occupational type A

Table 6. Proportion of employers who answer “Yes” for the Question of “the skills that employees in firms may be using in their jobs” (for worker type A)

	Managers	Professionals	Technicians	Worker type A (on average)
Does their job regularly involve reading?	86	100	81	89
Does their job regularly involve writing using correct spelling and grammar?	53	67	37	52
Does their job regularly involve math, that is, adding, using a calculator or computer if necessary?	82	96	75	85
Does their job regularly involve solving problems that take 30 minutes or more of thinking time to find a good solution?	65	96	65	75
Does their job regularly involve speaking a language other than?	29	74	32	45

Does their job regularly require making formal presentations to clients or colleagues to persuade them of a point of view?	86	93	59	79
Does their job regularly involve interacting with a team of co-workers?	84	89	97	90

Managers: Of 195 employers who were asked about occupation type of “Managers”, 86% say that the skills of “reading” and “making formal presentations to clients or colleagues to persuade them of a point of view” are regularly used in their firms. 84% of employers think that the skill of “interacting with a team of co-workers” is necessary. The skill of “math and using calculator or computer” is regularly required to managers in 82% of firms. Followed by the skills of “solving problems that take 30 minutes or more of thinking time to find a good solution” and “writing using correct spelling and grammar” with 65% and 53% corresponding. Just 29% of employers say that managers are required skill of speaking a foreign language.

Professionals: For occupation position of “Professionals”, most of 27 employers who were asked about professionals say that seven skills mentioned above are commonly necessary to professionals. The skills that professionals most regularly use are “reading” (100%), “using computer/solving problems that take 30 minutes or more of thinking time to find a good solution” (96%), “making formal presentations to clients or colleagues to persuade them of a point of view” (93%).

Technicians: Occupation position of “Technicians” was asked to 130 employers. 97% of them report that the skill of “interacting with a team of co-workers” is regularly required. The majority also appreciates other skills such as reading (81%), math and using calculator or computer (75%), solving problems that take 30 minutes or more of thinking time to find a good solution (65%), and making formal presentations to clients or colleagues to persuade them of a point of view (59%). The skills of “writing using correct spelling and grammar” and “speaking a foreign language” are just regularly used in a smaller proportion of employers (with 37% and 32% corresponding).

From the table above, it can be realized that “reading” and “interacting with a team of co-workers” for *occupation type A* are regularly used in most of firms (the average is 89% and 90% corresponding), next are “math and using calculator or computer” (85%), making formal presentations to clients or colleagues to persuade them of a point of view (79%), solving problems that take 30 minutes or more of thinking time to find a good solution (75%), writing using correct spelling and grammar (52%). The proportion for the skill of “speaking a foreign language” is 45%.

B. Occupational category B

Table 7. Proportion of employers who answer “Yes” for the Question of “the skills that employees in firms may be using in their jobs” (for worker type B)

	Clerical support workers	Service workers	Sales workers	Skilled agricultural and fishery workers	Craft and related trade workers	Plant and machine operators and assemblers	Elementary occupations	Worker type B
Does their job regularly involve reading?	90	52	69	0	28	38	23	43

Does their job regularly involve writing using correct spelling and grammar?	88	15	45	0	1	9	7	23
Does their job regularly involve math, using a calculator or computer if necessary?	95	28	83	0	19	24	9	37
Does their job regularly involve solving problems that take 30 minutes or more of thinking time to find a good solution?	31	4	38	0	5	14	5	14
Does their job regularly involve speaking a language other than?	21	24	31	0	0	9	2	12
Does their job regularly require making formal presentations to clients or colleagues to persuade them of a point of view?	40	22	76	0	4	16	2	23
Does their job regularly involve interacting with a team of co-workers?	81	87	79	100	95	88	77	87

Clerical support workers: Occupation position of “Clerical support workers” was asked to 42 employers. Most of employers agree that the skills of math and using calculator or computer (95%), reading (90%), writing (88%) and interacting with a team of co-workers (81%) are necessary to job of clerical support workers. Just 21% of employers report that the skill of speaking a foreign language is regularly used.

Service workers: When asked about skills of “services workers”, 58/67 employers (87%) say that “interacting with a team of co-workers” is needed. 52% require the skill of reading; 28% for the skill of using computer; 24% for speaking a foreign language.

Sales workers: 29 employers were asked about “Sales workers”. 83% of employers agree that the skill of math, using calculator or computer is needed by sales workers. The proportions of employers who require the skills of interacting with a team of co-workers and making formal presentations to clients or colleagues to persuade them of a point of view is 79% and 76% corresponding. 31% say that the skill of speaking a foreign language is needed.

Skilled agricultural and fishery workers: Only one firm was asked about Skilled agricultural and fishery workers. This employer say that the firm just requires this occupational type the skill of interacting with a team of co-workers.

Craft and related trade workers: When asked about “Craft and related trade workers”, the majority of employers feel that almost skills of this worker type suggested in the questionnaire are not regularly used. Only the skill of interacting with a team of co-workers is regularly used at 105/111 firms (95%).

Plant and machine operators and assemblers: Occupation type of “Plant and machine operators and assemblers” were asked to 58 employers. Similarly to responses from employers who were asked about craft and related trade workers, 51 in 58 employers (88%) say that the skill of interacting with a team of co-workers is needed for this position, and the number of employers who require the remainder skills are much lower (e.g. 22/51 for the skill of reading, 5/51 for writing and for speaking foreign language).

Elementary occupation workers: 44 employers were asked about “Elementary occupation workers”. The majority of firms just require the skill of interacting with a team of co-workers (77%). Most of the remainder skills are not regularly used.

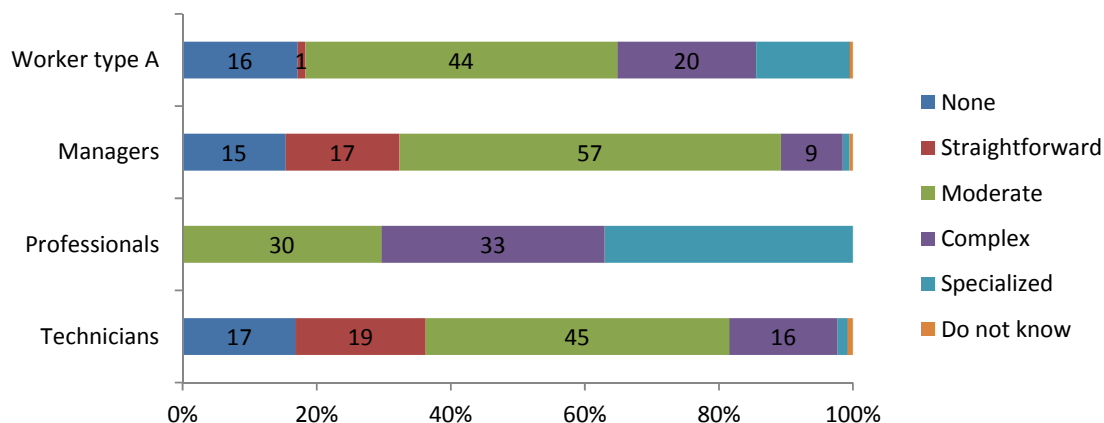
Similar to the findings for occupational type A, the skill of “interacting with a team of co-workers” for *occupation type B* are regularly used in most of firms (87% on average), followed by the skill of reading (43%). The smallest proportion is for the skill of speaking a foreign language (12%).

Skills of computer use

When asked about the highest level of computer use involved in job of occupation positions, employers rank their workers’ level with grades: None, straightforward, moderate, complex and specialized. The grades for occupation positions are shown in the following figures (Figure 11 and 12).

A. Occupational type A

Figure 11. The highest level of computer use for occupation type A (by percentage)



Looking at Figure 11, the majority of employers (57%) rank the highest level of computer use of “*managers*” at moderate grade. However, 15% acknowledge that their managers do not have knowledge of computer use. Managers ranked at none grade are from small firms or households firms.

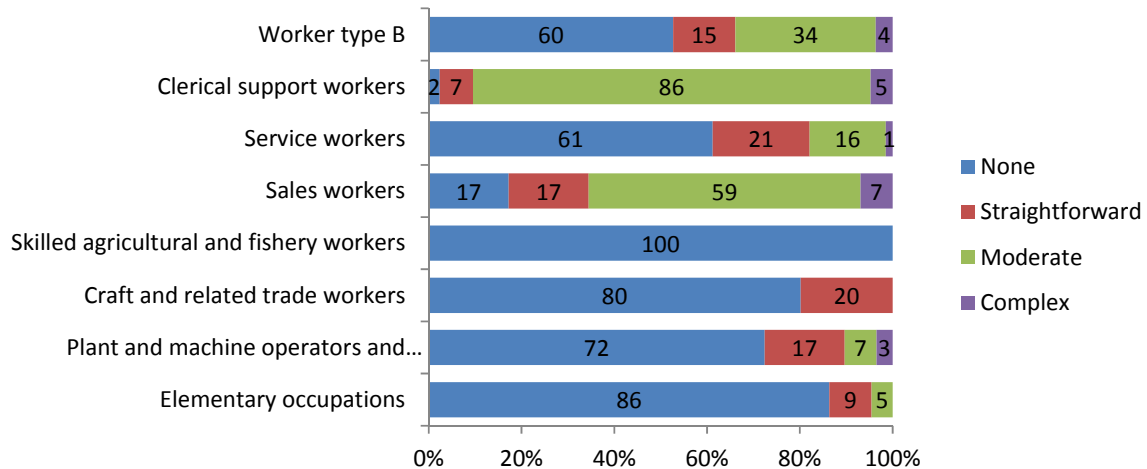
“*Professionals*” in the surveyed firms are highly appreciated in terms of computer use. Grade of specialized is mostly for this occupation (37%). The proportion of employers who rank their professionals at complex grade is 33%. The remainder (30%) ranks moderate grade.

45% of employers when asked about occupational type of “*Technicians*” say that they rank this position at moderate grade. 16% rank the complex grade for technicians. Notably, 17% of employers say that their technicians do not have knowledge of computer use.

B. Occupational type B

When asked about the highest level of computer use involved in job of occupation type B, employers rate level of their workers as below (see Figure 12)

Figure 12. The highest level of computer use for occupation type B (by percentage)

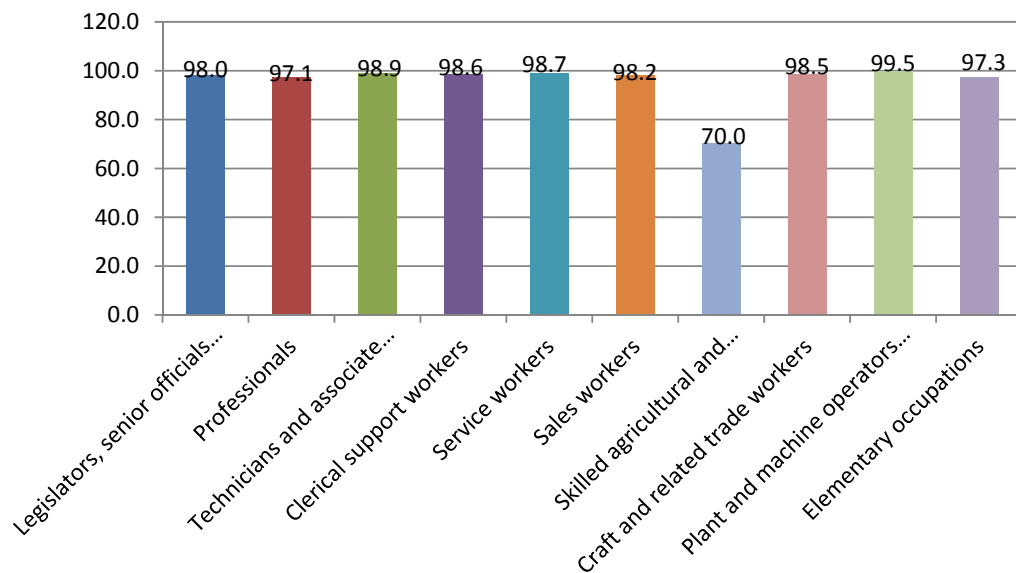


This Figure suggests that computer use level of *clerical support workers* is higher than those of other occupations in occupational type B (91% of employers rank grade of moderate and complex for this occupation). The majority of employers do not require skill of computer use to 4 occupation types, consisting of *Skilled agricultural and fishery workers*, *craft and related trade workers*, *Plant and machine operators and assemblers* and *Elementary occupation workers*.

(3) Working on time

When asked what percentage of the days in the month the worker arrive at work on time in the last month, most of employers respond that their employees worked on time. On average, the percentage of days in a month the workers arrived at work on time is about 98% (see Figure 13). This indicates that the firms' rules of working time are seriously implemented.

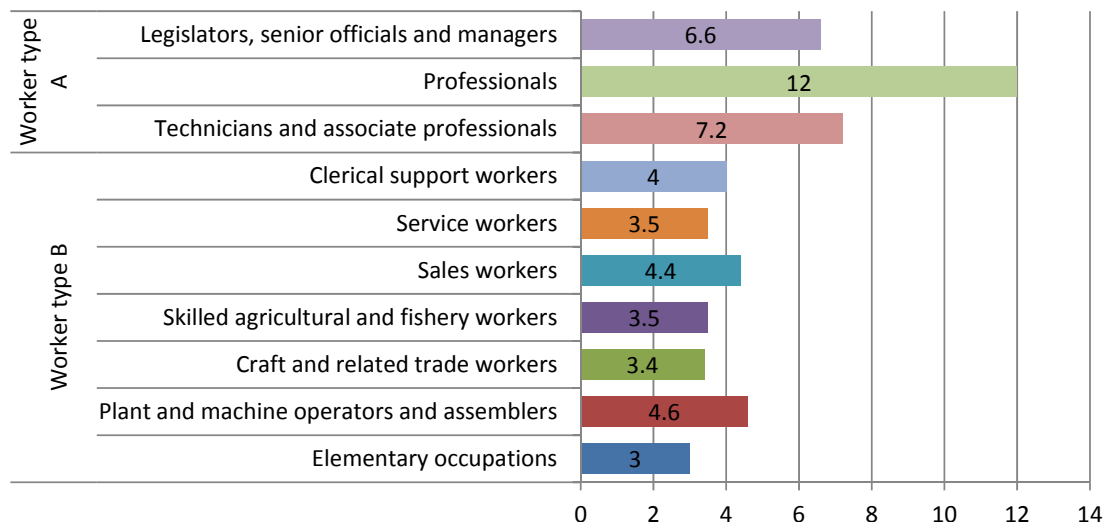
Figure 13. Percentage of days the workers arriving at work on time



(4) Monthly gross compensation of employees

The purpose of Figure 14 is to indicate the average of monthly gross compensation of workers in the surveyed firms over last 12 months. Accordingly, the position of *professionals* received the highest compensation (12 million VND on average) that is nearly twice as much as that of *managers* (6.6 million VND). The second high compensation is for occupation of *technicians* who received the average of 7.2 million VND. The lowest compensation level is for *elementary occupation workers* (with 3 million VND on average).

Figure 14. Monthly gross compensation of employee (in million VND)



(5) Last promotion

When asked about the last promotion for firms' workers, a proportion of employers answer that they have not offered promotions for their workers (see Table 8). In general, the

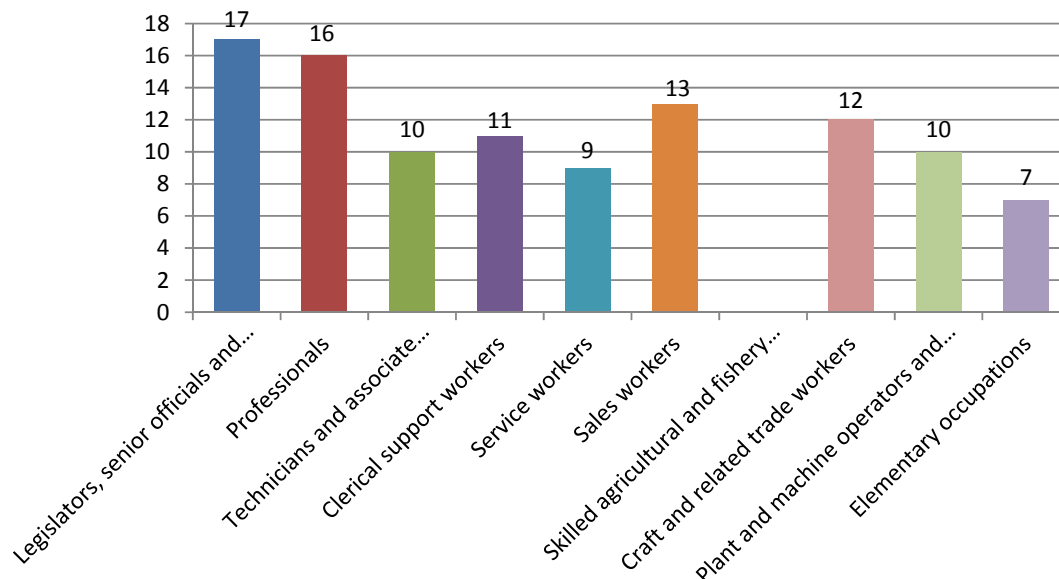
proportion of employers who have not offered promotions for their occupation type A workers (the average is 32%) is smaller than the proportion of employers who have not offered promotions for their occupation type B (46% on average). In other words, the surveyed employers often offer more opportunities of promotion for high skilled workers compared to lower skilled workers.

Table 8. Proportion of employers not offer promotion for their workers

Worker type		Proportion of employers not offer promotion for their workers
Worker type A	Legislators, senior officials and managers	45
	Professionals	30
	Technicians and associate professionals	22
Worker type B	Clerical support workers	21
	Service workers	34
	Sales workers	52
	Skilled agricultural and fishery workers	100
	Craft and related trade workers	41
	Plant and machine operators and assemblers	34
	Elementary occupations	41

For firms that have offered opportunities of promotion for their workers, details of the last promotion time for types of worker is set out in Figure 15. On average, position of *managers* received the last promotion from 17 months ago; *professionals* received from 16 months ago; *sales workers* had promotion from 13 months ago; and the remainders had the last promotion in the last year.

Figure 15. The last promotion time to date by occupational types (by number of months)

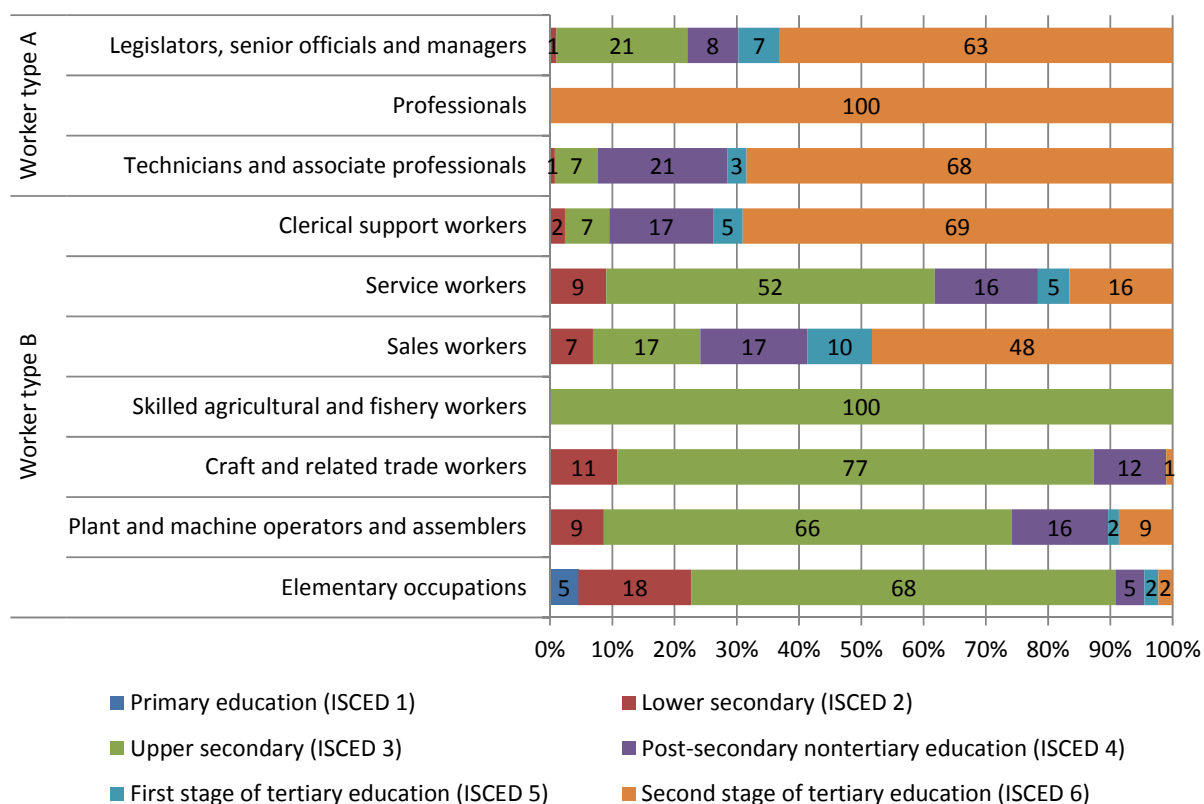


(6) The highest education level of workers

Looking at Figure 16, the survey suggests that the high education level is mostly from occupation type A. Particularly, all employers who were asked about the position of *professionals* say that their professionals have education level at second stage of tertiary education and higher. *Technicians and Managers* in the majority of interviewed firms (the average is 68% and 63 corresponding) also have level at second stage of tertiary education and higher. However, managers of 2/195 firms just have education level of lower secondary.

Among occupational type B, *clerical support workers* and *sales workers* have higher education level compared to the remainders. 69% of firms say that their clerical support workers have level at second stage of tertiary education and higher. This proportion is even slightly higher than that for the position of managers. Post-secondary nontertiary education level and lower is mostly for the positions of *Skilled agricultural and fishery workers*, *Craft and related trade workers*, *Plant and machine operators and assemblers*, and *Elementary occupations*.

Figure 16. The highest education level of occupation positions (by percentage)



3.3. MODULE 3 - INFORMATION ON NEW HIRES

Employers were given the opportunity to identify worker characteristics/ skills/ traits that were important to their firms. Employers ranked criteria on which employers put most weight when deciding which new employees should be retained after a probation period. Employers were also asked about two occupation types A and B as mentioned in Module 2. The following analyses show the relative importance to employers of three groups of characteristics, skills and traits covered in the survey. Specifically:

- Group 1: **personal characteristics** (i.e. age, appearance, gender, and family relations/ personal ties);
- Group 2: **job related skills** (i.e. literacy, numeracy, job -specific technical skills, communication, leadership, teamwork, creative thinking, problem solving, work independently, time management, and foreign language skills); and
- Group 3: **personality traits** (i.e. conscientiousness, emotional stability, agreeableness, extraversion, openness to experience)

The purpose of the following analyses are to illustrate employers' priorities in terms of personal characteristics/ job-related skills/ personality traits they would require to new employees and to provide a relative ranking of the importance of different characteristics/ skills/ traits.

(1) Personal characteristics

With four personal characteristics (i.e. age, appearance, gender, and family relations/ personal ties), employers ranked the top three personal characteristics that are important when deciding which new employees should be retained after a probation period. The following tables shows, by percentage, how the employers ranked criteria for retaining their workers.

A. Occupational type A

Table 9. Ranking of personal characteristics for occupational type A (by proportion of firms who ranked the most important and the top 3)

Personal characteristics	Managers		Professionals		Technicians	
	Ranked 1	Ranked top 3	Ranked 1	Ranked top 3	Ranked 1	Ranked top 3
Age	29	93	52	100	46	99
Appearance	5	53	0	39	6	62
Gender	22	78	26	100	34	90
Family relations/ personal ties	44	76	22	61	15	50

Table 9 shows the ranking given to each of the 4 personal characteristics when the firms decide to retain new employees for occupational type A positions after a probation period. The following is the personal characteristics that are highly ranked by the highest proportion of firms. Specifically:

- For position of managers, "family relations/ personal ties" is ranked as the most important criterion by 44% of firms and also ranked in top three important characteristics by 76% of firms.
- For position of professionals, "age" is ranked as the most important criterion by 52% of firms and also ranked in top three important characteristics by all of firms.
- For position of technicians, "age" is ranked as the most important criterion by 46% of firms and also ranked in top three important characteristics by 99% of firms.

In general, "age" and "family relations/ personal ties" are two characteristics ranked as the most important criteria to occupational type A positions.

B. Occupational type B

The employers were also asked to rank the top 3 important personal characteristics to occupational type B positions when deciding to retain their employees after a probation period. Table 10 indicates the ranking given to each of the 4 personal characteristics when the firms decide to retain new employees for occupational type B positions after a probation period

Table 10. Ranking of personal characteristics for occupational type B (by proportion of firms who ranked the most important and the top 3)

Personal characteristics	Clerical support workers		Service workers		Sales workers		Skilled agricultural and fishery workers		Craft and related trade workers		Plant and machine operators and assemblers		Elementary occupations	
	Ranked 1	Ranked top 3	Ranked 1	Ranked top 3	Ranked 1	Ranked top 3	Ranked 1	Ranked top 3	Ranked 1	Ranked top 3	Ranked 1	Ranked top 3	Ranked 1	Ranked top 3
Age	37	88	30	100	31	97	100	100	42	100	24	95	39	93
Appearance	15	76	27	72	45	97	0	0	4	49	3	60	2	61
Gender	24	88	42	90	14	83	0	100	45	95	67	97	48	98
Family relations/ personal ties	24	49	1	39	10	24	0	100	9	56	5	50	9	41

Looking at Table 10, there are some noteworthy points regarding the personal characteristics that are highly ranked by the highest proportion of firms. Specifically:

- “Age” is highly ranked to Clerical support workers. For position of Skilled agricultural and fishery workers, because there is only one firm asked about this type of workers, “age” is ranked as the most important criterion, and thus in top three important characteristics.
- “Gender” is given as a priority to Service workers. This characteristic is highly ranked to Craft and related trade workers, Plant and machine operators and assemblers, and Elementary occupation workers.
- “Appearance” is important to Sales workers.

The results of the survey shows that “gender” and “age” are the most important criteria to most of occupation type B positions.

(2) Job-related skills

Given the job related skills (i.e. literacy, numeracy, job -specific technical skills, communication, leadership, teamwork, creative thinking, problem solving, work independently, time management, and foreign language skills) listed in questionnaire, employers were asked to rank the top 5 skills on which employers have priority when deciding which new employees should be retained after a probation period. Table 10 and 11 show employers’ rank of the most important skills and the top 5 important skills for retaining their employees after a probation period.

A. Occupational type A

Table 11 indicates the ranking given to each of the 11 skills when deciding to retain new employees for occupational type A positions after a probation period.

Table 11. Ranking of job-related skills for occupational type A (by proportion of firms who ranked the most important and the top 5)

Job-related skills	Managers		Professionals		Technicians	
	Ranked 1	Ranked top 5	Ranked 1	Ranked top 5	Ranked 1	Ranked top 5
Ability to read and write in the (an) official language (literacy)	4	9	0	4	3	9
Ability with calculations and numbers (numeracy)	2	22	11	37	3	29
Job-specific technical skills	24	61	81	96	77	92
Communication skills	11	72	0	19	1	41
Leadership skills	48	84	0	33	8	46
Team work skills	3	22	0	30	1	46
Creative and critical thinking	5	71	7	85	1	65
Problem solving skills	3	92	0	96	4	88
Ability to work independently	1	38	0	52	2	56
Time management skills	1	15	0	11	1	13
Foreign language skills	1	14	0	37	0	15

Looking at Table 11, the skills that are highly ranked are different among occupations. “Leadership skills” is a priority when deciding to retain new employees for position of “manager”; “Job-specific technical skills” is highly ranked to the positions of professionals and technicians.

B. Occupational type B

Table 12 indicates the ranking given to each of the 11 skills when deciding to retain new employees for occupational type B positions after a probation period.

Table 12. Ranking of job-related skills for occupational type B (by proportion of firms who ranked the most important and the top 5)

Job-related skills	Clerical support workers		Service workers		Sales workers		Skilled agricultural and fishery workers		Craft and related trade workers		Plant and machine operators and assemblers		Elementary occupations	
	Ranked 1	Ranked top 5	Ranked 1	Ranked top 5	Ranked 1	Ranked top 5	Ranked 1	Ranked top 5	Ranked 1	Ranked top 5	Ranked 1	Ranked top 5	Ranked 1	Ranked top 5
Ability to read and write in the (an) official language (literacy)	5	24	12	46	7	17	0	0	6	33	12	24	7	25
Ability with calculations and numbers (numeracy)	5	31	0	9	7	41	0	0	1	7	2	7	2	9
Job-specific technical skills	43	76	31	64	34	79	100	100	80	93	76	93	34	5

Communication skills	26	67	40	76	38	90	0	0	3	50	2	74	18	64
Leadership skills	2	5	0	0	3	3	0	0	0	1	2	5	0	2
Team work skills	0	38	9	75	7	41	0	100	6	86	0	48	16	73
Creative and critical thinking	2	29	0	12	0	28	0	0	0	13	0	10	0	11
Problem solving skills	10	88	0	78	0	83	0	100	1	68	5	83	2	73
Ability to work independently	5	83	3	51	3	52	0	100	0	68	2	76	11	80
Time management skills	2	45	1	67	0	41	0	100	3	81	0	74	9	91
Foreign language skills	0	14	3	24	0	24	0	0	0	0	0	5	0	7

Looking at Table 12, the skills that are highly ranked are also different among occupation type B positions. “Job-specific technical skills” is highly ranked to the positions of Clerical support workers, Skilled agricultural and fishery workers, Craft and related trade workers, and Plant and machine operators and assemblers. “Communication skills” is highly prized to Service workers and sales workers and Elementary occupation workers.

(3) Personality traits

Employers were also given the opportunity to identify the top four personality traits in five traits listed in the questionnaire important to their companies when they decide to retain new employees. Five personality traits for ranking includes:

- Conscientiousness (Does a thorough job, is hard working, does things efficiently)
- Emotional stability (Is relaxed and handles stress well, doesn't worry or get nervous easily)
- Agreeableness (Forgives other people easily, is considerate and kind, is polite);
- Extraversion (Is talkative, assertive, outgoing and sociable); and
- Openness to experience (Is original and comes up with new ideas, has an active imagination)

Details of employers' ranking for personality traits are shown in the following table (Table 13 and 14).

A. Occupational type A

Looking at Table 13, it is obvious that “conscientiousness” to occupational type A positions is ranked as the most important personality trait by most employers when they decide to retain their new employees. Specifically, 88% of employers appreciate “conscientiousness” of *managers* and *technicians* as well, 85% for *professionals*.

Table 13. Ranking of personality traits for occupational type A (by proportion of firms who ranked the most important and the top 4)

Personality traits	Managers		Professionals		Technicians	
	Ranked 1	Ranked top 4	Ranked 1	Ranked top 4	Ranked 1	Ranked top 4
Conscientiousness	88	99	85	100	88	99

Emotional stability	2	82	4	89	3	67
Agreeableness	1	64	0	48	0	68
Extraversion	1	70	0	63	3	70
Openness to experience	9	85	11	100	6	95

B. Occupational type B

Similar to the ranking for occupational type A, most of employers also express their priority to “conscientiousness” when deciding to retain their new employees for positions of occupational type B (see Table 14). On average, 87% of employers appreciate “conscientiousness” as the most important criterion when deciding to retain their new employees for occupation type B positions.

Table 14. Ranking of personality traits for occupational type B (by proportion of firms who ranked the most important and the top 4)

Personality traits	Clerical support workers		Service workers		Sales workers		Skilled agricultural and fishery workers		Craft and related trade workers		Plant and machine operators and assemblers		Elementary occupations	
	Ranked 1	Ranked top 4	Ranked 1	Ranked top 4	Ranked 1	Ranked top 4	Ranked 1	Ranked top 4	Ranked 1	Ranked top 4	Ranked 1	Ranked top 4	Ranked 1	Ranked top 4
Conscientiousness	83	98	93	99	72	100	100	100	92	99	81	100	91	100
Emotional stability	7	88	6	100	3	90	0	100	7	96	9	97	2	91
Agreeableness	5	81	0	84	14	86	0	100	0	77	5	81	5	91
Extraversion	2	74	1	70	7	69	0	0	1	59	5	71	0	57
Openness to experience	2	60	0	48	3	55	0	100	0	68	0	52	2	61

(4) Rank for three groups of particular characteristics, skills or traits

As mentioned above, employers were asked about the importance of three groups (personal characteristics, job-related skills and personality traits). Employers were also asked which of these groups they feel is the most important when deciding which employee should be retained? and the second? Details of their responses are set out in Table 15 and 16.

A. Occupational type A

Table 15 indicates the ranking of three groups of characteristics/ skills/ traits, it is obvious that the group of “job-related skills” is appreciated by most of employers when they decide to retain new employees for occupational type A positions

Table 15. Ranking of groups of characteristics/ skills/ traits for occupational type A (by proportion of firms who ranked the most important and the top 2)

Groups	Managers		Professionals		Technicians	
	Ranked 1	Ranked top 2	Ranked 1	Ranked top 2	Ranked 1	Ranked top 2
Personal characteristics	9	12	4	4	5	9
Job related skills	87	97	96	96	89	98

Personality traits	4	91	0	100	6	92
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B. Occupational type B

Similar to the ranking for occupational type A positions, the group of “job-related skills” is ranked as the most important to occupational type B positions (see Table 16)

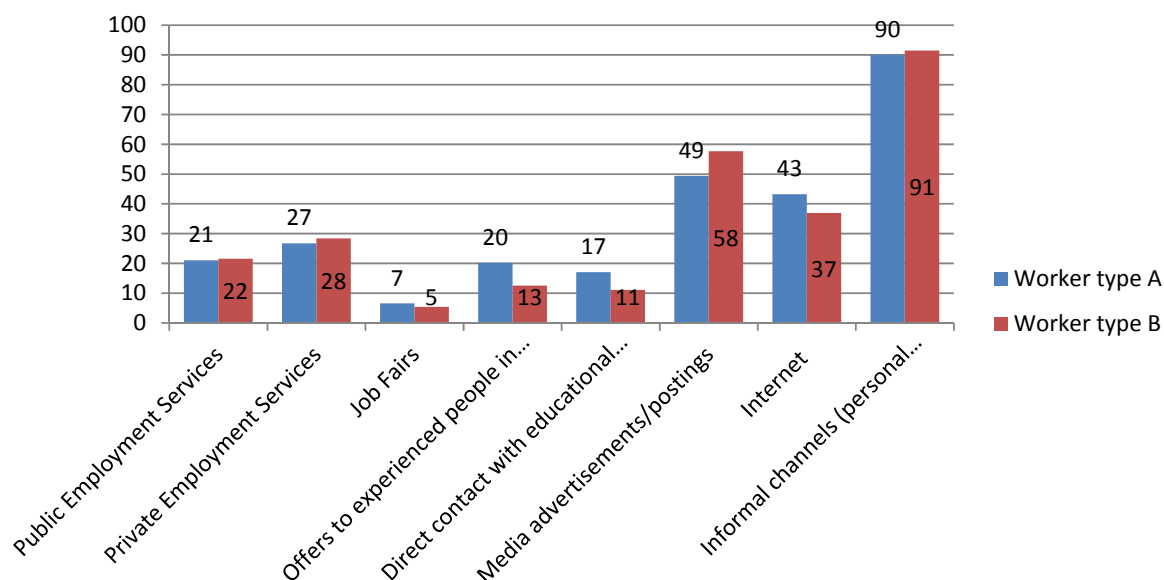
Table 16. Ranking of groups of characteristics/ skills/ traits for occupational type B (by proportion of firms who ranked the most important and the top 2)

Groups	Clerical support workers		Service workers		Sales workers		Skilled agricultural and fishery workers		Craft and related trade workers		Plant and machine operators and assemblers		Elementary occupations	
	Ranked 1	Ranked top 2	Ranked 1	Ranked top 2	Ranked 1	Ranked top 2	Ranked 1	Ranked top 2	Ranked 1	Ranked top 2	Ranked 1	Ranked top 2	Ranked 1	Ranked top 2
Personal characteristics	0	17	10	48	10	31	0	0	7	13	3	22	9	30
Job related skills	93	93	81	79	90	97	100	100	90	95	91	90	89	82
Personality traits	7	90	9	75	0	72	0	100	3	93	5	88	2	89

(5) Sources for new workers recruitment

Responses of employers of sources for recruiting new workers are shown in Figure 17. For occupational type A, most of employers responded “yes” to source of informal channels (i.e. personal contacts, people recommended by others) with the average of 90%, more specifically 179/195 (92%) for managers, 23/27 (85%) for professionals and 115/130 for technicians. The source of informal channels is followed by that of Media advertisements/postings (49% on average) and sources of internet (43% on average). Similar to employers’ responses for occupational type A, most of employers also responded “yes” to source of informal channels for occupational type B (91% on average), followed by source of Media advertisements/postings (58%) and sources of internet (37% on average). It is obvious that most of firms use the source of informal channels for their employee recruitment. Notably, just 17% and 11% of firms use the source from direct contact with educational institutions, schools, training centers, universities,...for recruiting occupational type A and B positions corresponding.

Figure 17. Sources for new workers recruitment (by proportion of firms, on average)



(6) Number of days to fill vacancies

Employers in this survey were also asked how many days on average does it take to fill a position from the time the position becomes open or is created over the past 12 months. Details of number of days to fill vacancies for different occupations are shown in Table below.

Table 17. Number of employers having new recruitment; Number of days for filling vacancies; and Number of offers over the past 12 months (on average)

Occupational type		Number of employers have new recruitment	Number of days for filling vacancies	Number of offers
Worker type A	Legislators, senior officials and managers	27	39	12
	Professionals	8	32	7
	Technicians and associate professionals	35	43	6
Worker type B	Clerical support workers	17	16	12
	Service workers	36	12	4
	Sales workers	16	45	6
	Skilled agricultural and fishery workers	1	2	1
	Craft and related trade workers	89	13	3
	Plant and machine operators and assemblers	38	14	4
	Elementary occupations	26	8	4

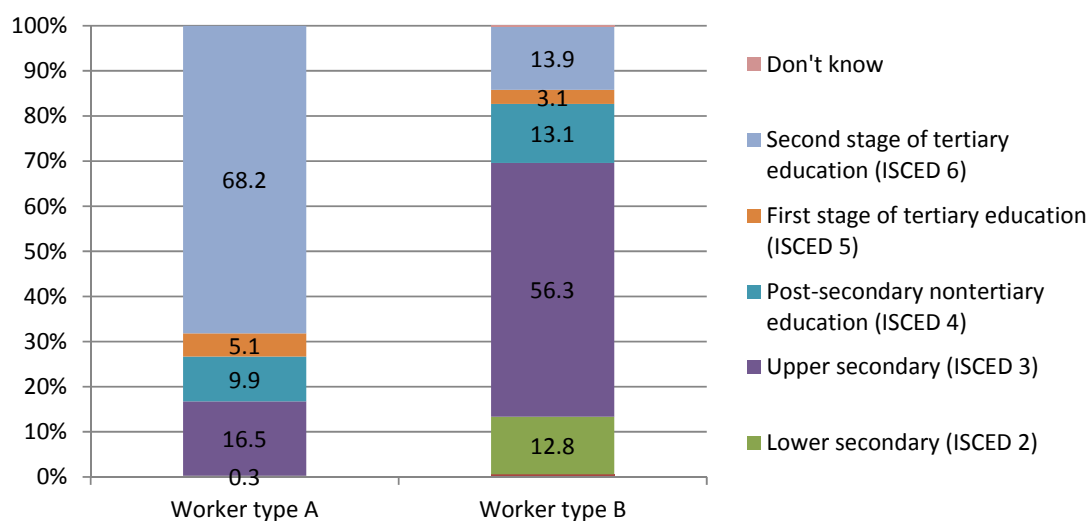
Table 17 indicates that on average, the number of days for filling a vacancy of *professionals* (43 days) is slightly higher than that for the remainders of occupational type A (39 days for managers and 32 days for technicians). For occupational type B, the number of days needed to fill a vacancy of *sales workers* (45 days) from the time the position becomes open or is created is much higher than those for the remainders. To fill a position of *service workers* or *Craft and related trade workers* or *Plant and machine operators and assemblers*, it just took about 2 weeks.

Table 17 also shows the number of offers that employers have made before filling occupational positions. On average, the employers have made 12 offers to vacancy of *managers* (occupational type A) as well as vacancy of *clerical support workers* (occupational type B). This is the highest number of offers that employers made for occupation positions.

(7) The education level of the most recent recruits

Figure 18 indicates the percentage of education level of the most recent recruits for occupational positions. On average, the majority of occupational type A recruits have the level of second stage of tertiary education (68.2%); and the majority of occupational type B recruits have the education level of upper secondary (56.3%).

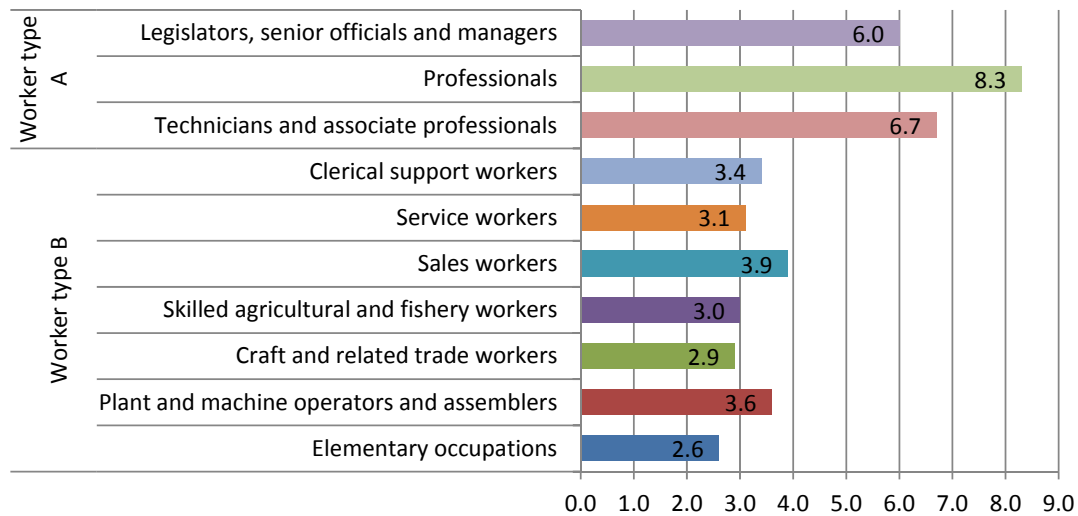
Figure 18. The education level of the most recent recruits (by percentage)



(8) The average monthly gross compensation

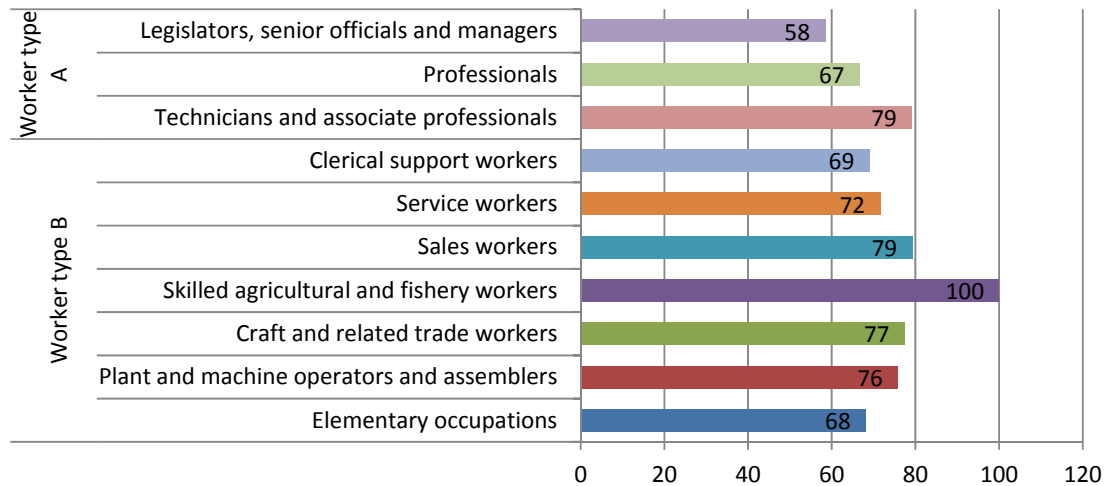
Figure 19 shows the average monthly gross compensation over the past 6 months (or the months since hiring) of the most recent recruits for different occupational positions. The purpose of this chart is to indicate differences of compensation between occupational types. The gross compensation of a recruit for position of professionals is double that for position of sales workers, nearly triple those for Craft and related trade workers and Skilled agricultural and fishery workers as well.

Figure 19. The average monthly gross compensation of the most recent recruits (*in million VND*)



The survey also indicates that the salary for workers in the majority of firms is negotiable at the moment of recruitment (see Figure 20).

Figure 20. Proportion of employers who answered “Yes” for the question “Is the salary for workers negotiable at the moment of hiring?”



In addition, employers were also asked about using contractors over the past 12 months because of skills shortages, just 13/352 (about 4%) employers answered “yes” for occupational type A and 8/352 (about 2%) employers responded “yes” for occupational type B. There is a fact that although some employers face skills shortages, they try to employ workers who satisfy firms’ requirements in terms of skills or adjust their production, but not use contractors due to skills shortages.

3.4. MODULE 4- TRAINING AND COMPENSATION

(1) Contacts with educational or training institutions

Concerning the question of regular contacts with educational or training institutions regarding occupational positions for recruitment, training, work placement, or another reason, responses of employers are shown in Table 18. From this table, it can be realized that the proportion of employers who regularly contact with educational or training institutions regarding positions of *professionals* (37%), *technicians* (28%) are the highest compared to those of the remainder positions

Table 18. Number and proportion of firms who have regular contacts with educational or training institutions regarding occupational positions

Occupational type		Number of firms	Incidence (%)
Worker type A	Legislators, senior officials and managers	18	9
	Professionals	10	37
	Technicians and associate professionals	37	28
Worker type B	Clerical support workers	3	7
	Service workers	11	16
	Sales workers	1	3
	Skilled agricultural and fishery workers	0	0
	Craft and related trade workers	8	7
	Plant and machine operators and assemblers	8	14
	Elementary occupations	4	9

When asked about purposes of contacts with educational or training institutions regarding occupational positions, most of employers answered that their main purpose is recruitment (83% for occupation A workers and 80% for occupation B workers). 45% of employers contact with educational or training institutions for internships and apprenticeships for students (occupation type A). The proportion of employers who contact with educational or training institutions for further training of their firm's existing employees (occupation type B) is 46%. There is a minority of employers who contact for purpose of Participation in testing of students (3% and 6% for occupation A workers and occupation B workers corresponding). These analyses are illustrated by Table 19 below.

Table 19. Purposes of employers' contact with educational or training institutions (by percentage)

Purposes of contact	Worker type A	Worker type B
Recruitment	83	80
Participation in testing of students	3	6
Curriculum development	9	11

Further training of your firm's existing employees	38	46
Provision of work experience for students (internships and apprenticeships)	45	34
Other	0	3

(2) Level of qualifying the job

When asked about what share of employees are fully qualified for the job, most of employers think that they should answer the question of what is level of qualifying the job by the employees. As a result, they responded that on average, their employees meet 91% of requirements for occupational type A and 86% of requirements for occupational type B.

(3) Training on the workplace premises

The survey shows that 50% of employers (177/352) had funded or arranged training on the workplace premises for their occupational A workers over last 12 month. This proportion is lower than that for occupational B workers (68% or 239/352 firms). Types of training for surveyed firms' employees are identified in Table below.

Table 20. Share of the employees received training on the workplace premises (by types of training)

Types of training	Worker type A	Worker type B
On the job training (learning as they worked at the job, with help from more experienced workers)	59	59
Training by the firm's managers, technical persons, peers, etc.	27	34
Training by the firm's dedicated trainers	6	4
Training on the firm's premises with external trainers (consultants, private training companies, government institutions, etc.)	7	2
Other	1	1

Table 20 indicates that in the last 12 months, both occupational A workers and occupational B workers in the surveyed firms received the most share of on the job training (59%), followed by type of training by the firm's managers, technical persons, peers (27% and 34% for occupational A workers and occupational B workers corresponding).

Of the employees who received such training on the workplace premises in the past year, the average days per year that workers received for each of these training methods are shown in Table 21. In general, the average days per year for training on the workplace premises for occupational type B are less than those for occupational type A. The majority of employers explained that this is because requirements of skills for occupational type A are higher, therefore time for training is longer.

Table 21. The average days per year for training on the workplace premises (days)

Types of training	Worker type A	Worker type B
Training by the firm's managers, technical persons, peers, etc.	31	24
Training by the firm's dedicated trainers	24	18

Training on the firm's premises with external trainers (consultants, private training companies, government institutions, etc.)	25	14
Other	29	25

(4) Formal training outside the workplace

The survey shows that occupational type A workers in 18% of the surveyed firms (64/352) received opportunities of formal training outside the workplace last year. However, just 6.5% of employers (23/352) sent their occupational type B workers for formal outside training. Types of outside training that firms' employees received are shown in Table 22.

Table 22. The share of outside training types

Types of outside training	Worker type A	Worker type B
At a technical or vocational education and training public school	22	36
Through private training providers	37	16
Through equipment suppliers (for example, a company selling computers providing training on software)	7	0
Other	34	48

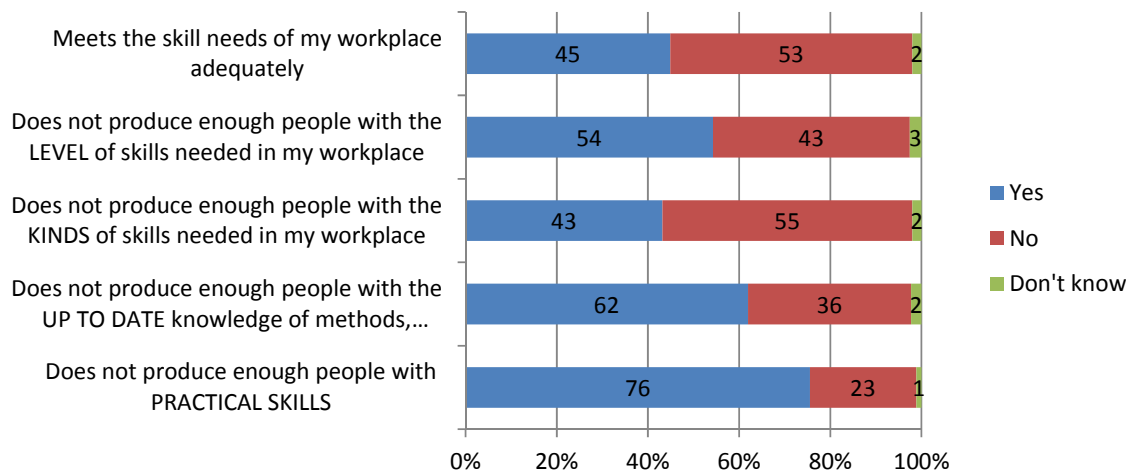
Looking at Table 22, the share of "Other" (i.e. Training courses organized by Departments of Culture, Sport and Tourism; Tax Department; State Bank; or studying abroad), which is 34% and 48% for occupational type A workers and occupational type B workers corresponding, is higher than those of the remainder training types.

By median method, formal training expense on last year for occupational type A is VND185 million/firm, whereas expense for occupational type B is just VND33 million/firm.

(5) Assessment of the technical and vocational training education system

When asked to agree or disagree with the statements describing the technical and vocational training education system in Vietnam, responses of employers are shown in Figure 21. This Figure indicates that the technical and vocational training education system in Vietnam have not adequately met the needs of the majority of employed firms. In views of the majority of the surveyed employers, the technical and vocational training education system does not meet the skill needs of firms in general (53%), and the needs of PRACTICAL skills (76%), LEVEL of skills (54%), and UP TO DATE knowledge (62%) in particular. Just the provision of the KINDS of skills satisfies majority of employers (55%).

Figure 21. Proportion of employers expressing their satisfaction of the technical and vocational training education system (by percentage)

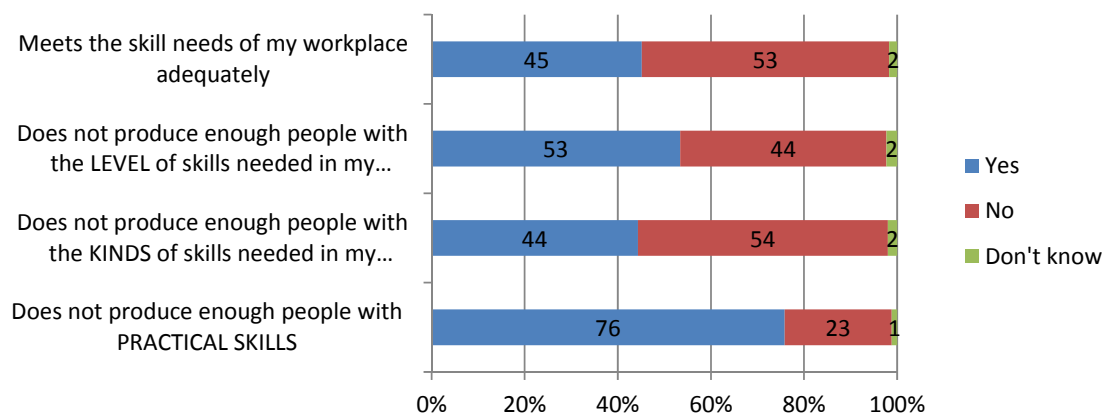


(6) Assessment of the general education system

Assessments of employers of the general education system are also similar to their views of the technical and vocational training education system. Accordingly, the majority of the surveyed employers say that the general education system does not meet the skill needs of firms in general (53%), and the needs of PRACTICAL skills (76%) and LEVEL of skills (53%) in particular.

Also similar to the view of the provision of the KINDS of skills by the technical and vocational training education system, the proportion of employers who are satisfied with this provision by the general education system (54%) is higher than those who are not satisfied.

Figure 22. Proportion of employers expressing their satisfaction of the general education system (by percentage)



(7) Remuneration

The survey shows that remuneration forms of fixed salary and bonus are more common than the two remainders for both occupational types A and B (see Table 23).

Table 23. Number of firms by the remuneration forms

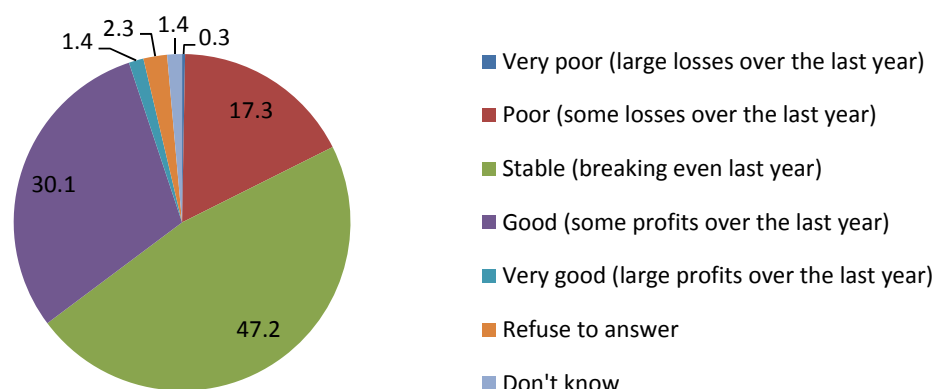
Forms of remuneration	Worker type A	Worker type B
Fixed salary	307	298
Variable salary	85	94
Bonus	287	297
Commission	11	19

3.5. MODULE 5 – FIRM BACKGROUND

(1) Financial performance and prospects of the firms

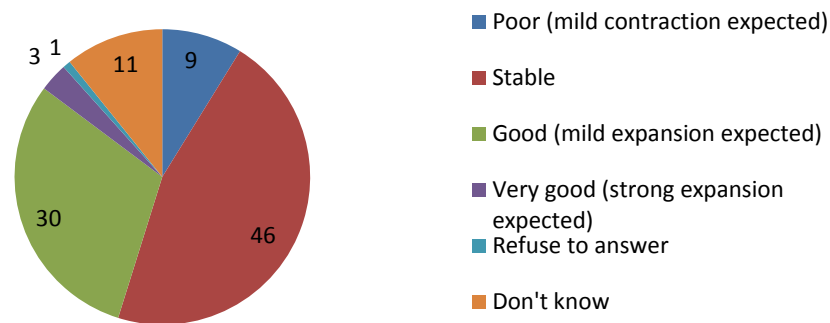
In the last fiscal year, nearly half of firms had stable financial performance (47.2%); 30.1% of firms had some profits; 17.3% had losses; and just 1.4% had large profits (see Figure 23). Looking at these facts, it can be understood that business operations of a large proportion of firms are in the unfavourable period. The proportion of firms that had profits is smaller than those who had not profits.

Figure 23. Financial performance of the surveyed firms (by percentage)



When thinking about the prospects for the firms in the coming three years, the majority of employers do not express high expectation of their business. 46% of employers just hope that they can maintain their business with stable performance. Notably, 9% of employers still say that under the current economic downturn, their business is expected to be in losses in the coming three years. 10% do not know what their business performance will be like. However, 30% still expect that their business operations will be good with a mild expansion (see Figure 24).

Figure 24. The prospects for the firms in the coming three years



The survey shows that the main buyer of the majority of firms (69%) are companies. Many employers explain that their business performance in the last year was severely affected due to difficulties of their customers who are also companies.

(2) Introducing new technologies/ products/ processes/ services

In the past 3 years, nearly half of the surveyed firms (46%) have introduced new products, but the proportion of firms who have introduced new technologies, new processes or new services is very small (below 10%). This proves that innovation capacity of the majority of the surveyed firms is still limited.

(3) Labor factors and their impacts on the business operation and growth of the firms

The survey also captures the relative influences of the labor factors on operation and growth of the firms. The factors mentioned in this survey include:

- Employment protection legislation
- Labor availability
- General education of workers
- Formal training of workers
- Previous experience
- High job turnover
- Payroll taxes and contributions
- Overall wage level
- Minimum wage

The purpose of Table 24 is to indicate how problematic each of the above labor factors is for the business operation and growth of the firms. The scales for influences of the above labor factors were between 1 and 5 where 1 means “no problem” and 5 means “severe problem”. Using the mean scores of this data indicates extent of influences of the labor factors on the firms’ business operation and growth.

Table 24. Influences of the labor factors on the firms’ business operation and growth

Labor factors	Score
---------------	-------

Employment protection legislation	1.5
Labor availability	2.5
General education of workers	2.0
Formal training of workers	2.4
Previous experience	3.3
High job turnover	2.9
Payroll taxes and contributions	1.9
Overall wage level	1.9
Minimum wage	1.8

Looking at Table 24, almost scores are marked from 1.5 to 2.5, except score for the factor of “previous experience” and “high job turnover”. This illustrates that the surveyed firms generally have just seen the labor factors as mild “problematic” influences on their business operation and growth. However, deficiency of previous experiences of workers and high job turnover are also problematic to the firms.

The employers were also asked to compare the influence of the labor issues and those of other issues to their business doing. The issues that were given to be compared include:

- Electricity
- Telecommunications, Transportation
- Access to Land
- Tax rates, Tax administration
- Customs and Trade Regulations
- Business Licensing and Operating Permits
- Access to Financing (e.g. collateral), Cost of Financing (e.g. interest rates)
- Economic and Regulatory Policy Uncertainty, Macroeconomic Instability (inflation, exchange rate)
- Corruption; Crime, theft and disorder
- Anti-competitive or informal practices; Legal system/conflict resolution

When asked about influences of the labor factors on the firms’ business operation and growth, the respondents commonly consider the influences of the labor factors as mild problematic. However, responding to the question of “Compared to the labor issues, are the above issues much more, more, similar, less or much less constraint to doing business?”, the surveyed firms overall reported that the labor issues have made more constraints to their business doing compared to other issues. This is illustrated in Table 25.

Table 25. Comparison of constraint extent of the labor issues with those of the following issues to the firms’ business doing

Other issues compared to the labor issues	Score
Electricity	3.3
Telecommunications, Transportation	3.4
Access to Land	3.5
Tax rates, Tax administration	3.5
Customs and Trade Regulations	3.8
Business Licensing and Operating Permits	4.0
Access to Financing (e.g. collateral), Cost of Financing	2.7

(e.g. interest rates)	
Economic and Regulatory Policy Uncertainty, Macroeconomic Instability (inflation, exchange rate)	2.3
Corruption; Crime, theft and disorder	3.6
Anti-competitive or informal practices ; Legal system/conflict resolution	3.6

Table 25 shows the mean scores given to the comparison between constraint extents caused by the above issues and by the labor issues to the firms' business doing. The scores were between 1 and 5 where 1 means "much more constraint", 2 means "more constraint", 3 means "similar constraint", 4 means "less constraint" and "much less constraint" is 5. Also using the mean scores of this data provides the best overall representation of the distribution of ratings.

Looking at Table 25, except the issues of "access to financing" and "Economic and regulatory policy uncertainty, Macroeconomic Instability", the other issues mentioned above are rated with 3.3 and higher. This means that the constraints caused by those issues to the firms' business doing are less than those caused by the labor issues. In other words, the labor issues are more problematic to the firms' business doing compared to the above issues.

Notably, over last few years, the issue of "Economic and regulatory policy uncertainty and Macroeconomic Instability" has resulted in difficulties to the firms, thus this issue is marked with the lowest mean score (2.3). The score (2.3) implies that this issue has caused more constraints to the firms' business doing than the labor issues. In addition, the issue of "Access to Financing, Cost of Financing" has been a persistent difficulty that many firms, especially small and medium firms, often have to face. As a result, this issue is marked with the score mean 2.7, which implies that it is more problematic to the firms' business doing than this labor issues.

(4) Firms' expenses

Looking at firms' expenses given in the financial report of the firms, Table 26 shows that although average number of employees in the most recent year (mostly fiscal year 2010) is lower 8% than that in one year ago (mostly fiscal year 2009), but the firms' expenses (i.e. Wage bill and compensation fund for workers; Operating expenses and Cost of goods sold; and Sales expenses) are higher than those of one year ago. Notably, the firms' operating expenses and cost of goods sold in the most recent year, on average, increased 31% compared to those of one year ago. Wage bill and compensation fund for workers in the interviewed firms in the most recent year increased 16% in comparison with that of one year ago.

Table 26. Comparison of the average number of employees and firms' expenses in the most recent fiscal year and one year ago

Information from the financial report	one year ago	most recent	Percentage of change
Average number of employees in the year	248	227	-8
Wage bill and compensation fund for workers (<i>in million VND</i>)	92,025	107,180	16

Operating expenses (rent, electricity, inventory maintenance) and Cost of goods sold (<i>in million VND</i>)	5,740	7,539	31
Sales (<i>in million VND</i>)	4,345	5,357	23

The above analysis is further confirmed by the comparison of the average number of employees and mean of firms' expenses in last month and the same month of one year ago (see Table 27). This table indicates that although the average number of employees is nearly the same, but firms' expenses last month increased in comparison with those of the same month of one year ago, specifically 5% for wage bill and compensation fund for workers, 12% for operating expenses and cost of goods sold, and 8% for sales expense averagely.

Table 27. Comparison of the average number of employees and firms' expenses last month and the same month of one year ago

Information from the financial report	Last month	Same month of one year ago	Percentage of change
Average number of employees in the month	254	253	0
Wage bill and compensation fund for workers (<i>in million VND</i>)	1,064	1,011	5
Operating expenses (rent, electricity, inventory maintenance) and Cost of goods sold (<i>in million VND</i>)	722	646	12
Sales (<i>in million VND</i>)	1,107	1,029	8

3.6. MODULE 6 - INNOVATION

(1) Innovation in the surveyed firms

This survey also captures information of innovation in the firms. 179/352 employers (about 51%) report that their firms worked on new characteristics (including invention, new business ideas, new product features, new research results, new process,...) during the last three years. The following is some ways that the firms did to develop a new characteristic:

Table 28. Methods of implementing a new characteristic

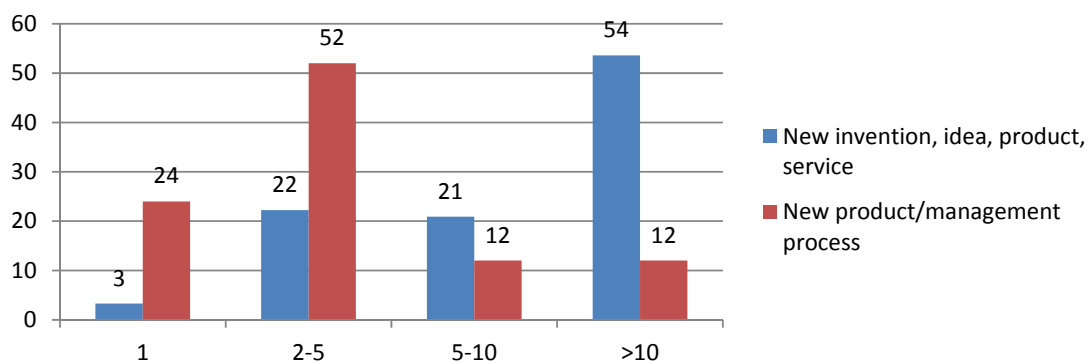
Methods	Number of firms	Weighted (%)
Apply for patent	20	11
Sell the idea/patent to a (business) partner	2	1
Sell the idea/patent as a license and enjoy royalty	0	0
Develop the new idea within the firm itself, then commercialize it	128	72
Did not take any actions	9	5
Did it some other ways.	49	27

Looking at Table 28, of 179 firms who defined a new characteristic, the majority of them (72%) developed the new idea within the firm itself, then commercialize it. 49/179 employers (27%) report that their new characteristics are designed and implemented by some other ways that are mostly specified as the orders of their customers.

In addition, for the firms who were involved in developing the innovation process themselves, 132/179 firms implemented the innovation process themselves, and the remainders (47/179) implemented the process in collaboration with other firms and/or institutions/partners.

The firms were asked “During the last three years, did the firm commercialize any new inventions, new ideas, products, services, or applied any new production/management process?”, 162/352 firms (46%) answered that they did. On average, the majority of firms (54%) commercialized more than 10 new inventions, new ideas, products, and services. For the firms who had new product/management process, the majority of them (52%) applied 2-5 processes.

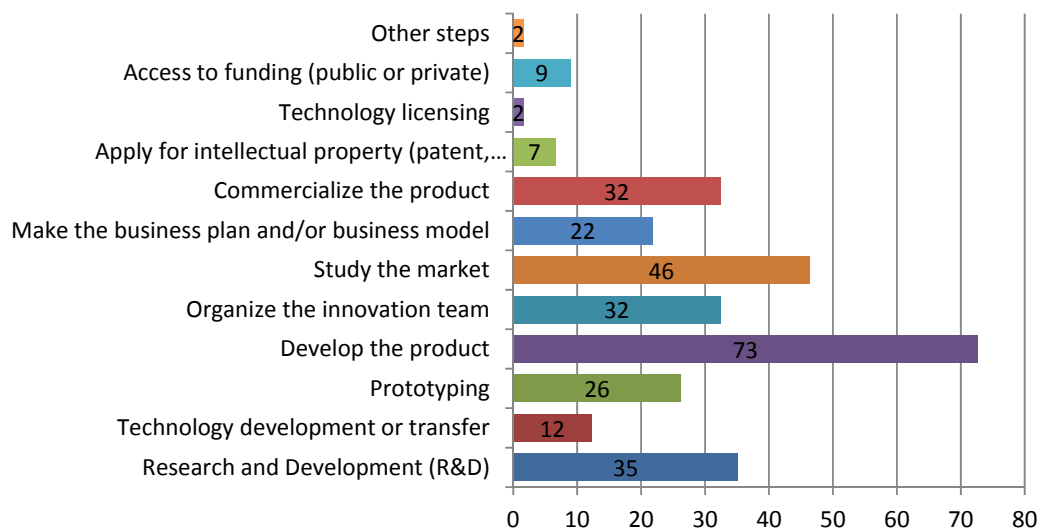
Figure 25. Proportion of firms commercialized their new inventions, new ideas, products, services, or applied new production/management process (on average, by number of new inventions, new ideas, products, services or new process)



(2) Challenges during the innovation process

When asked “During the innovation process, to the firm's experience, what have been the challenging steps?”, the responses of employers are as below (see Figure 26).

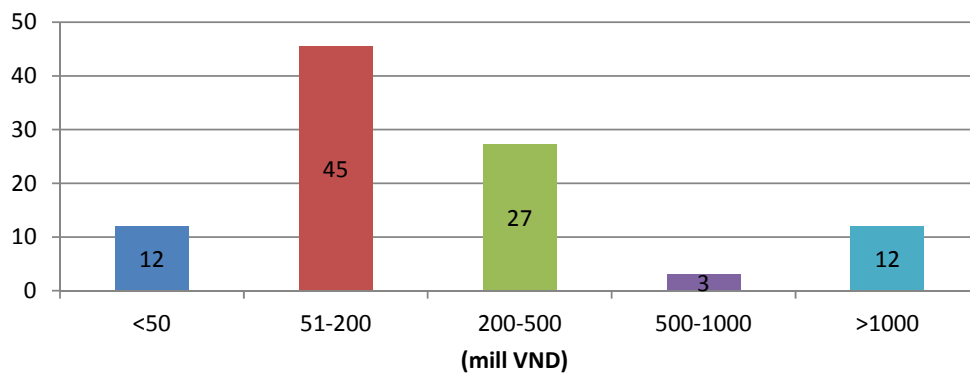
Figure 26. Challenges faced the firms during the innovation process (by proportion of firms)



Looking at Figure 26, it can be realized that the picture is very different among steps of the innovation process. During the innovation process, the step of “develop the product” is considered as the a challenge faced the majority of firms (73%), followed by the step of “study the market” (46% of firms), 35% for the step of “R&D”, 32% for the step of “Commercialize the product”, under 30% for the remainders.

Notably, of 352 employers selected, just 36 firms (about 10%) have a Research and Development (R&D) Units. The average number of employees who work in R&D Units was from 8 to 9 staff in the last three years. However, the expenditure for R&D is quite different among the firms. Figure 27 shows that the proportion of firms whose expenditure for R&D is VND 51-200 million is the highest.

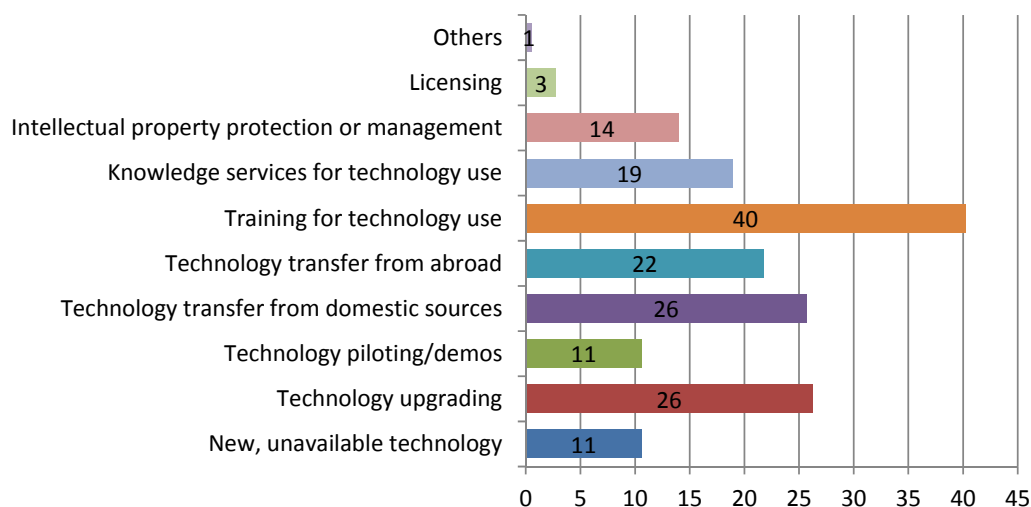
Figure 27. Expenditure for R&D (by proportion of firms)



(3) Technology use in the surveyed firms

Regarding the firms’ interests/needs related to technology use, the survey shows that the respondents have different interests in or needs of technology use. This is shown in Figure 28 below. It is obvious that the proportion of firms (40%) who have main interests in or needs of “training for technology use” is the highest compared to those who have the remainder needs.

Figure 28. Interests/needs related to technology use (by proportion of firms)



(4) Cooperation with outside partners related to innovation

When asked “Has the firm ever had any cooperation with an outside partner in a project related to researching and commercializing a new invention, idea, product, or service, or applying a new production/management process?”, only 21/352 firms say that they have had cooperation with outside partner related to innovation. The majority of them (70%) has worked on 2-5 projects in collaboration with the outside partner. However, only 5 firms have had collaboration with research institutes and universities, and the number of project that they have worked on is small (3 firms have had 1 project, and 2 firms have had 2-5 projects). Notably, most of the firms who have worked on the projects in cooperation with outside partners feel “very satisfied” and “satisfied” with those projects. Just 1 firm say that they are not satisfied.

Obviously, the survey indicates that firms’ cooperation with outside partners related to innovation is limited. Their needs for the helps from research institutes and universities are also different. Table 29 and 30 show that the help of “Access to developed technologies for absorption and adaptation” is the most wanted.

Table 29. The firms’ need for helps from research institutes

Needs for helps from research institutes	Number of firms
Technical assistance from sc & eng, management or other GRIs experts	18
Use of specialized laboratory facilities and instrumentation	23
Access to developed technologies for absorption and adaptation	56
Technology commercialization assistance (demos, licensing, dissemination, etc)	23
Linkages to other research partners	36
Access to information on latest research results	38
Others	4

Table 30. The firms’ need for helps from universities

Needs for helps from universities	Number of firms
Technical assistance from university faculty and/or students	17
Use of specialized laboratory facilities and instrumentation	16
Access to developed technologies for absorption and adaptation	48
Technology commercialization assistance (demos, licensing, dissemination, etc)	23
Assistance with product design and development practices, and manufacturing practices, processes and technology	37
General legal, tax or accounting management services, marketing and networking assistance (business support)	20
Access to angel investors, venture capital investors, bank loans, in-house investment funds, loan guarantee programs (support with financing strategy)	23
Linkages to other research partners	18
Access to information on latest research results	31
Others	3

(5) Capacity building for employees

The survey found that of 352 interviewed firms, 90 firms have implemented capacity building activities for their employees during the last three years. The number of firms who have implemented different capacity building activities for employees is shown in Table 31 below. Looking at this Table, the way of capacity building by “providing employees with updated working and learning materials and tools” is the most implemented by the firms during the last three year.

Table 31. Capacity building activities

Capacity building activities	Number of firms
The firm organizes its own training courses	29
The firm sends its employees to training courses organized by other partners	23
The firm hires technical assistance to work with its employees	26
The firm provides its employees with updated working and learning materials and tools	52
The firm implements other activities	10

For the firms who have implemented capacity building by sending employees to training programs, the topics of “Research and development” and “Product development” are the most priorities (52%) (see Table 32).

Table 32. Training programs for innovation capacity building

Training programs	Number of firms	Incidence
Research and development	12	52
Prototyping	3	13
Product development	12	52
Patenting and licensing	2	9
Business model and business plan	7	30
Production	8	35
Business development (marketing, distribution channels, etc.)	8	35
Human resource development	8	35
Organization management	9	39
Business legal issues	2	9
Access to funding, including application for competitive funding	0	0
Any other topics	2	9

When asked about the firm's needs for building the capacity to innovate via training of employees, the picture is very different among the needs. Table 33 shows 12 needs covered in the survey. The purpose of this table is to illustrate employers' priorities in building the capacity to innovate via training of employees. Looking at this Table, Product development is the most wanted (with 67 firms), followed by priorities of “Production” (selected by 61 firms) and “Human resource development” (with 55 firms).

Table 33. The firms' need for innovation capacity building

Needs for innovation capacity building	Number of firms
No need for any capacity building	3
Research and development	42
Prototyping	31
Product development	67
Patenting and licensing	4
Business model and business plan	16
Production	61
Business development (marketing, distribution channels, etc.)	40
Human resource development	55
Business legal issues	15
Application for competitive funding (concept note and proposal development)	4
Any other issues	1

(6) Financing science and technology

Although many firms have need for innovation capacity building, but their participation in competitive grant is very limited. Only 3 firms participated in the competitive grant process. When asked “What are/have been some of the effective ways of financing science and technology for the firm?”, almost respondents do not know or refuse to answer, just 6 employers answered this question. Commonly, the firms ranked ways of financing science and technology as medium and high effective (see Table 34).

Table 34. Ways of financing science and technology

Ways of financing science and technology	Rank of effectiveness
Access to seed level capital	Medium
Access to venture capital (or other later stage equity financing) and venture capital services	High
Competitive grants	High
Joint ventures with other firms	High
Public-private partnerships	
Tax or other relief for R&D expenses	Medium

When asked “What could be done to make financing mechanisms for science and technology more effective?”, firms' responses are different. Table 35 shows that “Training for firms to participate in diverse financing mechanisms” and “Development of better global networks to attract domestic and foreign investors from the private sector” are two solutions that are most suggested (with 12 firms).

Table 35. Solutions for making financing mechanisms for science and technology more effective

Solutions	Number of firms
Training for firms to identify and present their needs for financing	9
Training for firms to participate in diverse financing mechanisms	12

Simplify procedures for obtaining different types of finance	10
Diversifying financing mechanisms to fit the diverse finance needs of SMEs (tax incentives for investment in SMEs, SME targeted grants, etc)	9
Development of angel investors, including diaspora, and angel investor networks	2
Development of better global networks to attract domestic and foreign investors from the private sector	12
Tax incentives for investment in SMEs	5

When asked “What type of support would you need to cooperate with universities and research institutes?”, the most suggested support type is “Assistance in identifying key innovation needs” (12 firms), followed by the support of “Competitive grant funds for partnerships with universities and research institutes to collaborate in R&D, product development” (see Table 36).

Table 36. Types of support needed to cooperate with universities and research institutes

Types of support needed to cooperate with universities and research institutes	Number of firms
Competitive grant funds for partnerships with universities and research institutes to collaborate in R&D, product development	9
Competitive grant funds for partnerships with universities and research institutes to collaborate in business development needs	6
Competitive grant funds for partnerships with universities and research institutes to find, access, acquire, adapt new technologies	4
Assistance in finding a research institute or university partner	9
Assistance in identifying key innovation needs	12
Assistance in networking within the same sector/sub-sector (technology platforms)	8
Assistance in developing a project plan and project management	5
Funds to purchase and share specialized equipment/instrumentation	3
Assistance with legal agreements (contract, IPR, etc)	0