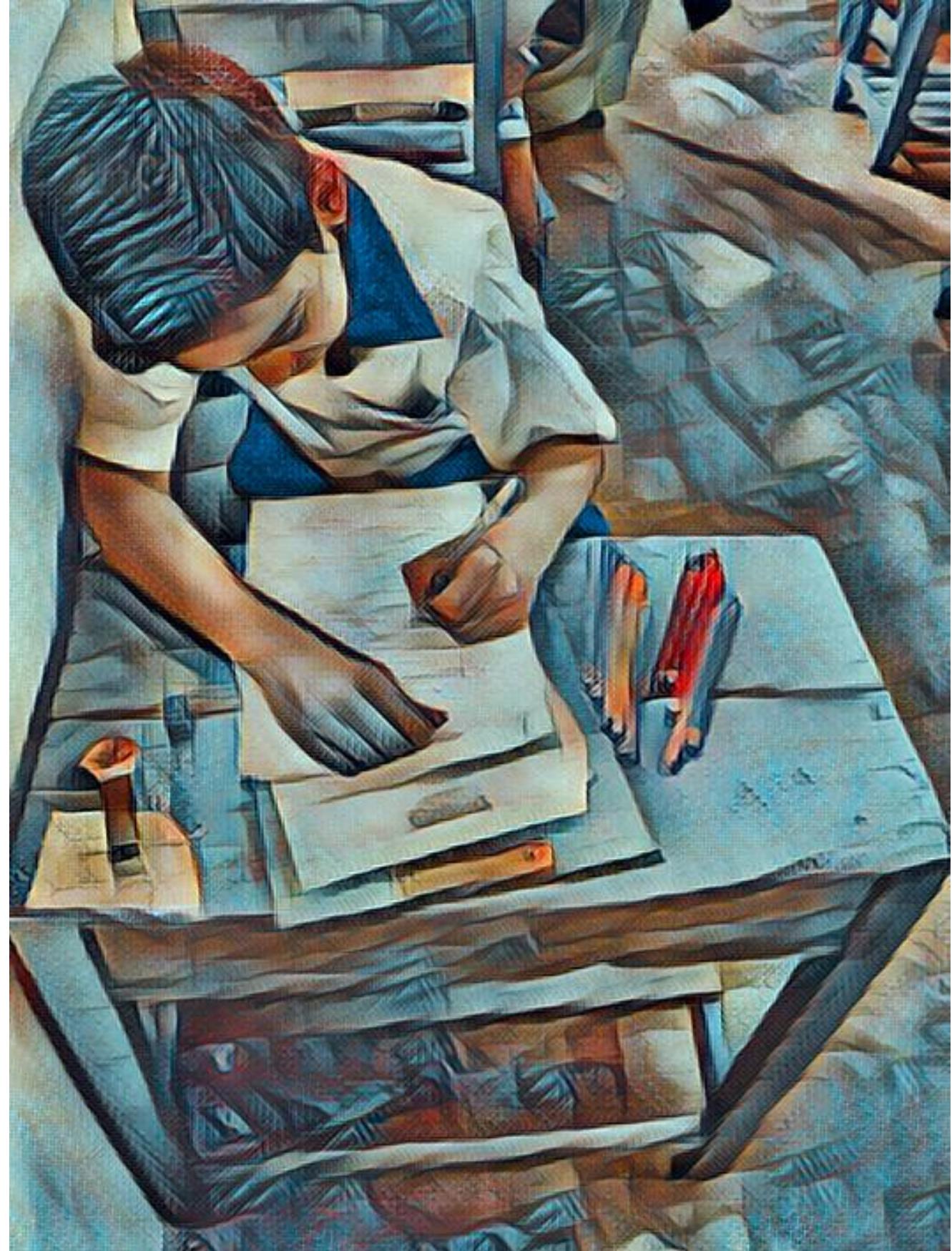


Skills Gap And Youth Employment In Bangladesh: An Exploratory Analysis

Presented by

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Acknowledgement

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Cover photo credit: Syed Yusuf Saadat, Senior Research Associate, Centre for Policy Dialogue (CPD)

Outline

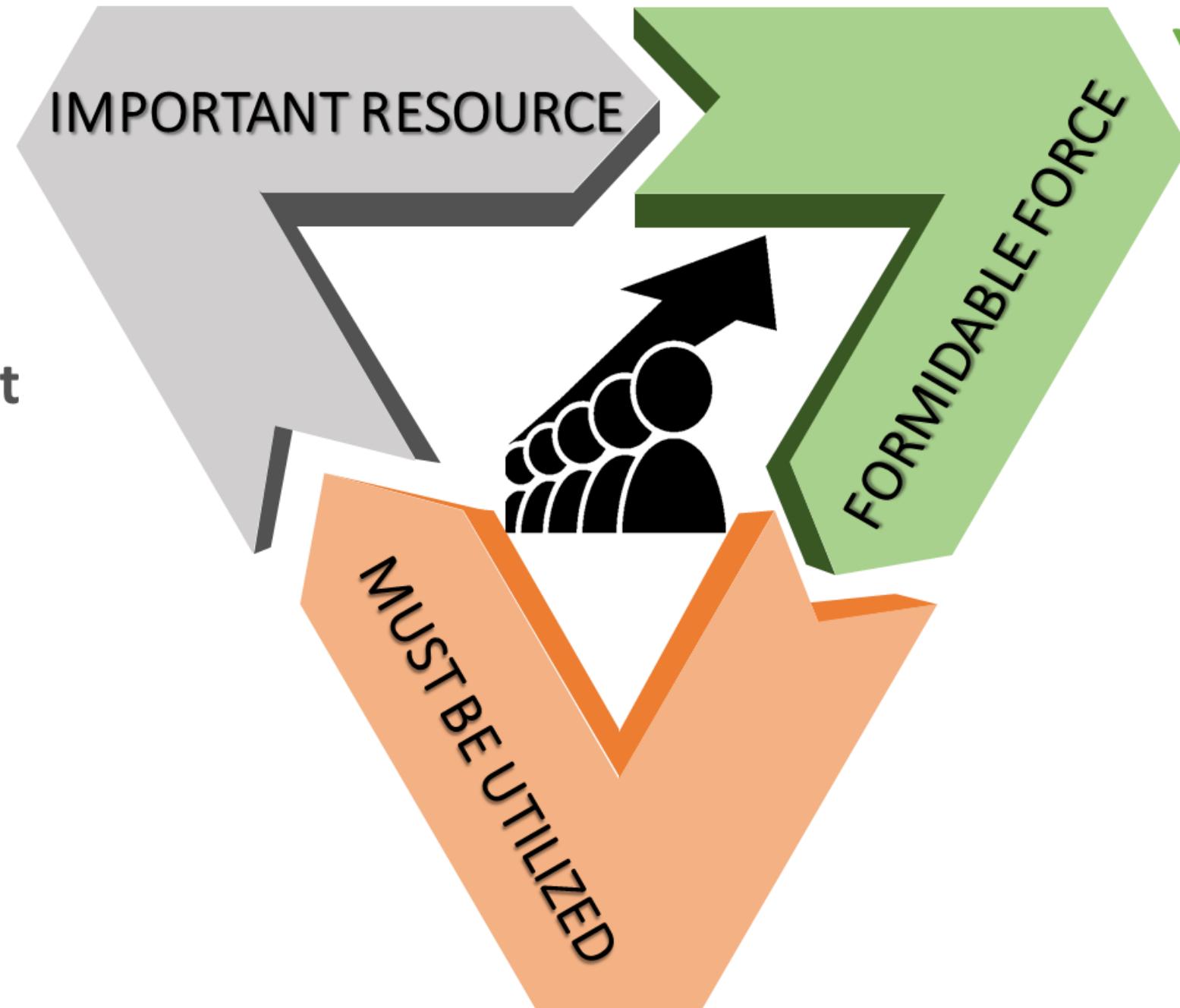


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1. Introduction

1.1 Significance of Youth

Youth can contribute to economic and social development



Youth can take the country forward

1.2 Skills gap and youth employment in Bangladesh



- Bangladesh has a large pool of young workers entering its labour market each year.
- Nowadays, employers are not only looking for the necessary hard skills but also prioritizing soft skills required for a specific job.
- According to Bangladesh Labour Force Survey 2016-17, youth unemployment rate was as high as 10.6% the share of unemployed youth in total unemployment was 79.6% in 2018.

1.3 Jobs created between 2015-16 and 2016-17 (in thousand)

Sector	Male	Female	Total
Agriculture	-623	-82	-705
Industry	-40	284	244
Mining and quarrying	10	-2	8
Manufacturing	35	231	262
Manufacturing of food products	-57	37	-20
Manufacture of textile	-22	5	-17
Manufacture of ready-made garments (RMG)	85	93	178
Manufacture of leather and related products	6	4	10
Manufacture of pharmaceuticals and medicinal chemical	4	2	5
Manufacture of other non-metallic mineral products	24	-6	18
Other manufacturing	-5	96	88
Construction	44	61	105
Construction of buildings	118	64	182
Civil engineering	-128	-21	-149
Specialised construction activities	54	18	72
Others	-129	-6	-131
Services	1,083	674	1,757
Wholesale trade, except of motor vehicle	241	45	286
Retail trade, except of motor vehicle	281	133	414
Land transport and transport via pipeline	560	75	635
Food and beverage service activities	80	64	144
Public administration and defense	-53	35	-18
Education	-14	46	32
Activities of households as employers of	29	108	137
Others services	-41	168	127
Total	420	876	1,296

Source: Authors' calculations based on BBS

1.4 Employment to GDP elasticity (in percentage)

- The employment intensity of growth, or elasticity of employment with respect to output, measures the change in employment growth associated with every percentage point of economic growth.
- Calculations of employment to GDP elasticity show that the total employment to GDP elasticity decreased during the period 2015-16 to 2016-17 compared to the period 2010 to 2013.
- The services sector created highest employment during the period from 2015-16 to 2016-17.
- On the other hand, the growth of the agriculture sector created fewer jobs both during 2013 to 2015-16 and during 2015-16 to 2016-17

Sector	2010 to 2013	2013 to 2015-16	2015-16 to 2016-17
Agriculture	0.175	-0.279	-0.933
Industry	0.842	0.028	0.196
Manufacturing	1.230	-0.287	0.212
Services	0.186	0.578	1.198
Total	0.365	0.119	0.299

1.5 Youth unemployment rate by education level (percentage of total youth labour force)

Education Level	2010	2013	2015-16	2016-17
No education – total	15.7	12.8	6.7	4.8
No education – male	13.4	5.1	6.1	2.3
No education – female	18.8	7.7	7.4	10.0
Primary – total	21.4	17.2	8.7	5.3
Primary – male	22.2	9.0	6.4	3.7
Primary – female	20.3	8.2	13.4	9.3
Secondary – total	49.0	34.7	10.7	8.7
Secondary – male	51.4	20.2	7.8	6.7
Secondary – female	47.4	14.5	17.6	11.7
Higher secondary – total	10.4	25.6	6.0	27.0
Higher secondary – male	10.3	12.4	6.1	22.7
Higher secondary – female	10.5	13.3	5.8	35.1
Tertiary – total	2.8	9.7	12.1	34.3
Tertiary – male	2.8	5.2	10.8	30.1
Tertiary – female	2.9	4.5	15.0	42.5
Total	7.4	8.1	8.7	10.6

Source: Authors' calculations based on BBS

1.6 Youth employment in the SDGs



SUSTAINABLE DEVELOPMENT GOALS



YOUTH 2030
WORKING WITH AND FOR YOUNG PEOPLE

1.7 Justification and policy relevance



- According to Bangladesh Labour Force Survey 2016-17, around 30% of the youth are not in education, employment, or training (NEET).
- Unemployment rate is higher among youth who are more educated.
- **Thus, it appears that education is not empowering youth with the right skill.**
- Hence, there is a need for research which identifies the skills that are in high demand in the present labour market
- Such research can enlighten job-seekers to prepare accordingly and also encourage policy-makers to allocate resources towards the sharpening of market relevant skills.

1.8 Research questions

Is there any skills gap in the labour market of Bangladesh?

If such a gap exists, then

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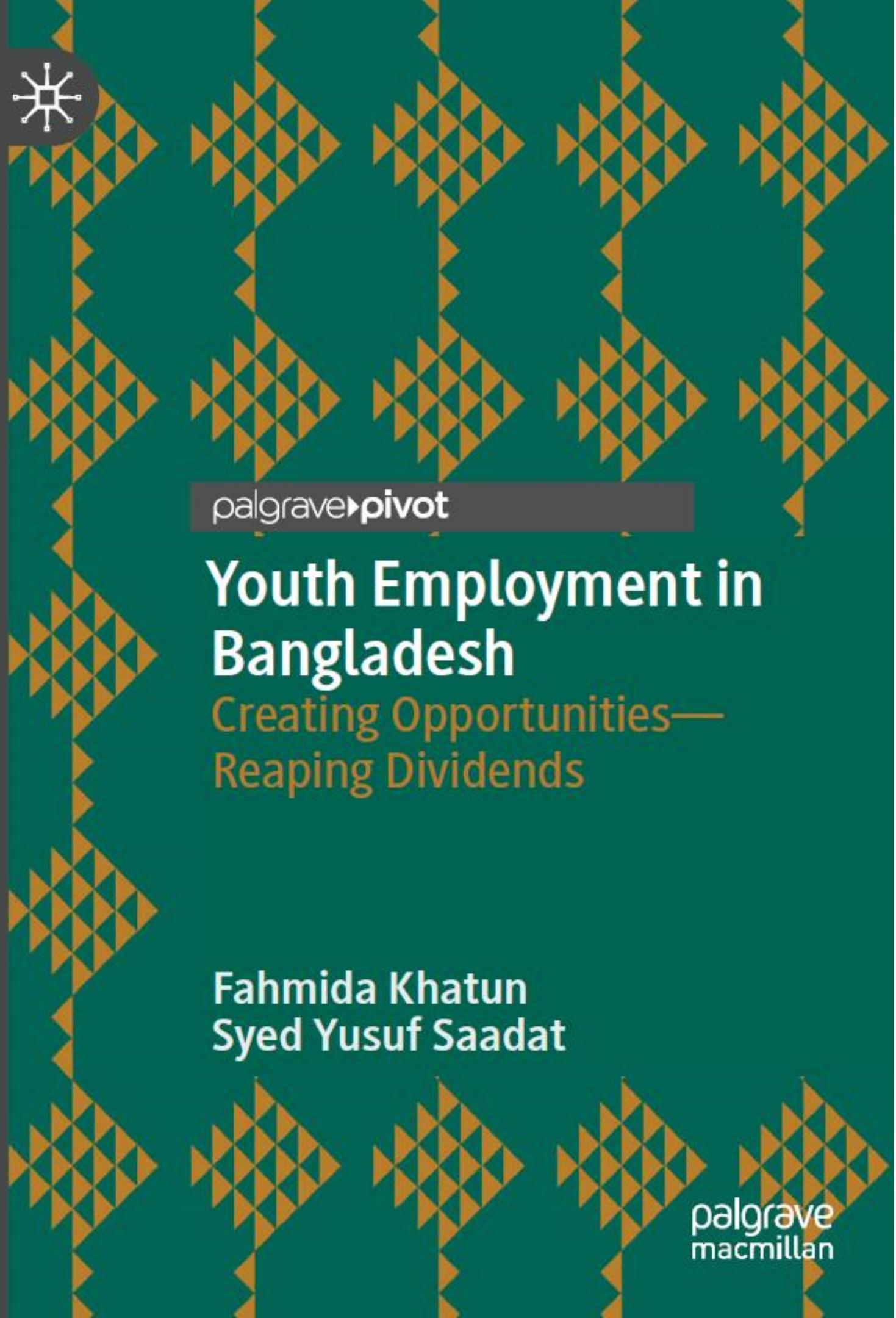
What are the skills which are most highly demanded by employers?

02

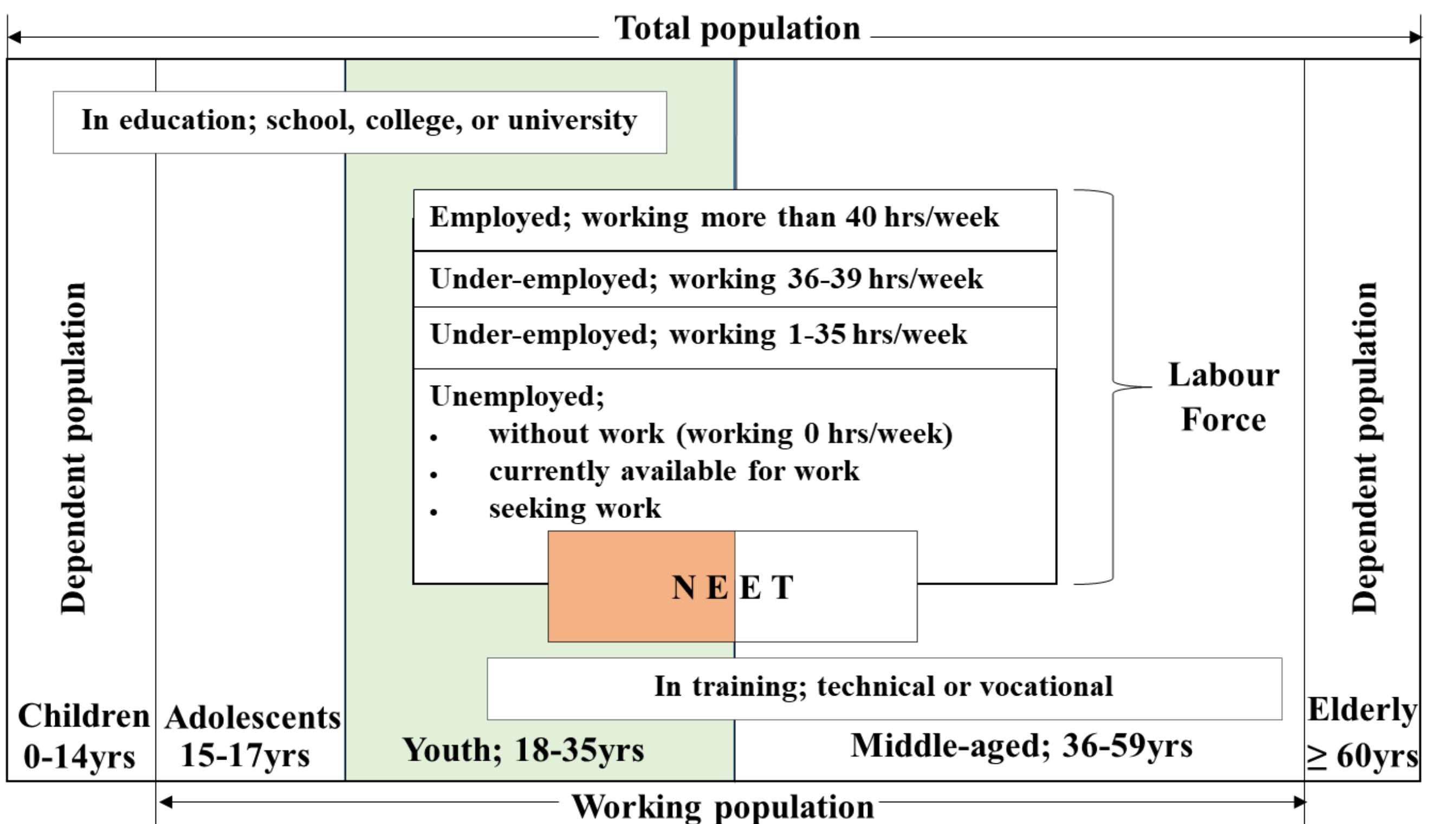
What is the level of expertise of university students and recent graduates in these skills?

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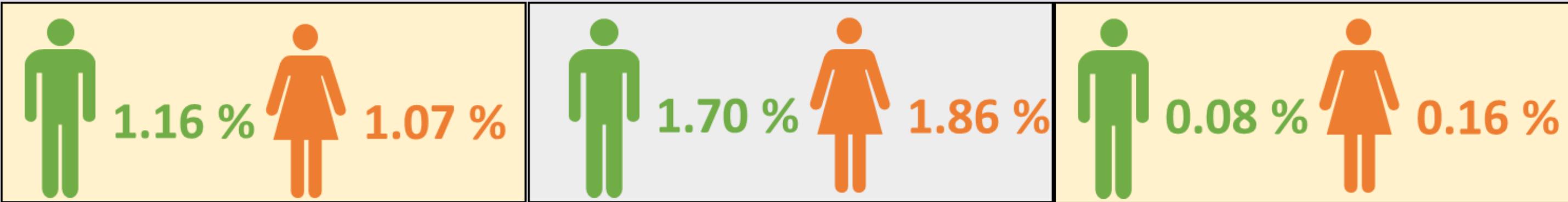
2. Previous research



2.1 Definition of Youth "Not in Education, Employment, or Training" (NEET)



2.2 Key Results of Econometric Analysis



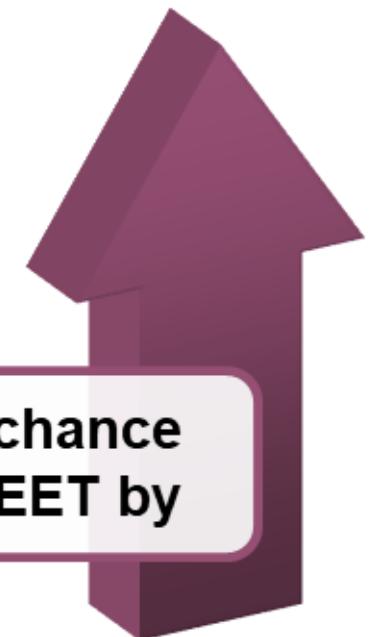
Increases chance
of youth NEET by



Increases chance
of youth NEET by



Increases chance
of youth NEET by



Each additional year
of schooling



Each additional year
of experience



Each additional hour
spent doing housework

3. Conceptual Framework

3.1 What is skill?

- According to the French psychologist Jacque Leplat, **a skill is the ability or capacity of an individual to perform a task or a class of tasks well.**
- The greater the complexity of the task and/or the more briefly it is defined to the operator, the greater are the possibilities of variety in its execution.
- The more complex a task or the more vaguely a task is defined, the more skill is required by a worker to complete that task.
- The more simple a task or the more elaborately a task is defined, the less skill is required by a worker to complete that task.

		Nature of the task	
		Simple task	Complex task
Level of details in instructions	Elaborately defined	Low skilled	Semi-skilled
	Vaguely defined	Semi-skilled	High skilled

3.2 Soft skills and hard skills

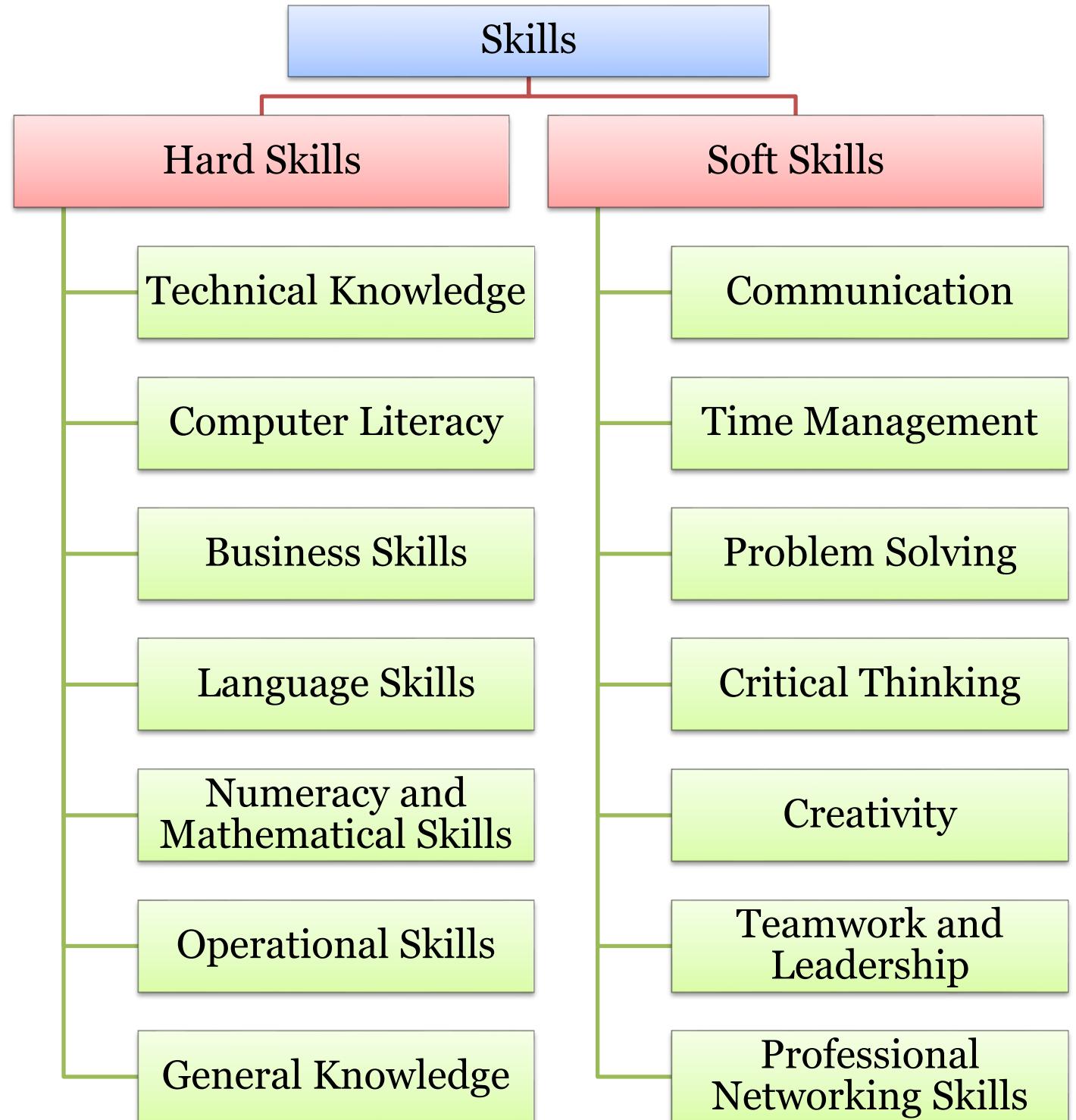


Soft skills are skills related to a person's character traits, attitudes, behaviours and qualities that determine his or her relationship with others in a social environment.



Hard skills are cognitive and technical skills associated with an individual's capability to perform a certain goal, activity, operation or task.

3.3 Classification of skills



4. Methodology

This study was carried out using primary data collected through two surveys:

Survey of employers

- The survey of employers included 100 non-government employers from different sectors of the country.
- The survey questionnaire collected data on variables such as the types of skills the employers look for in candidates, the skills lacking in the current employees, etc .

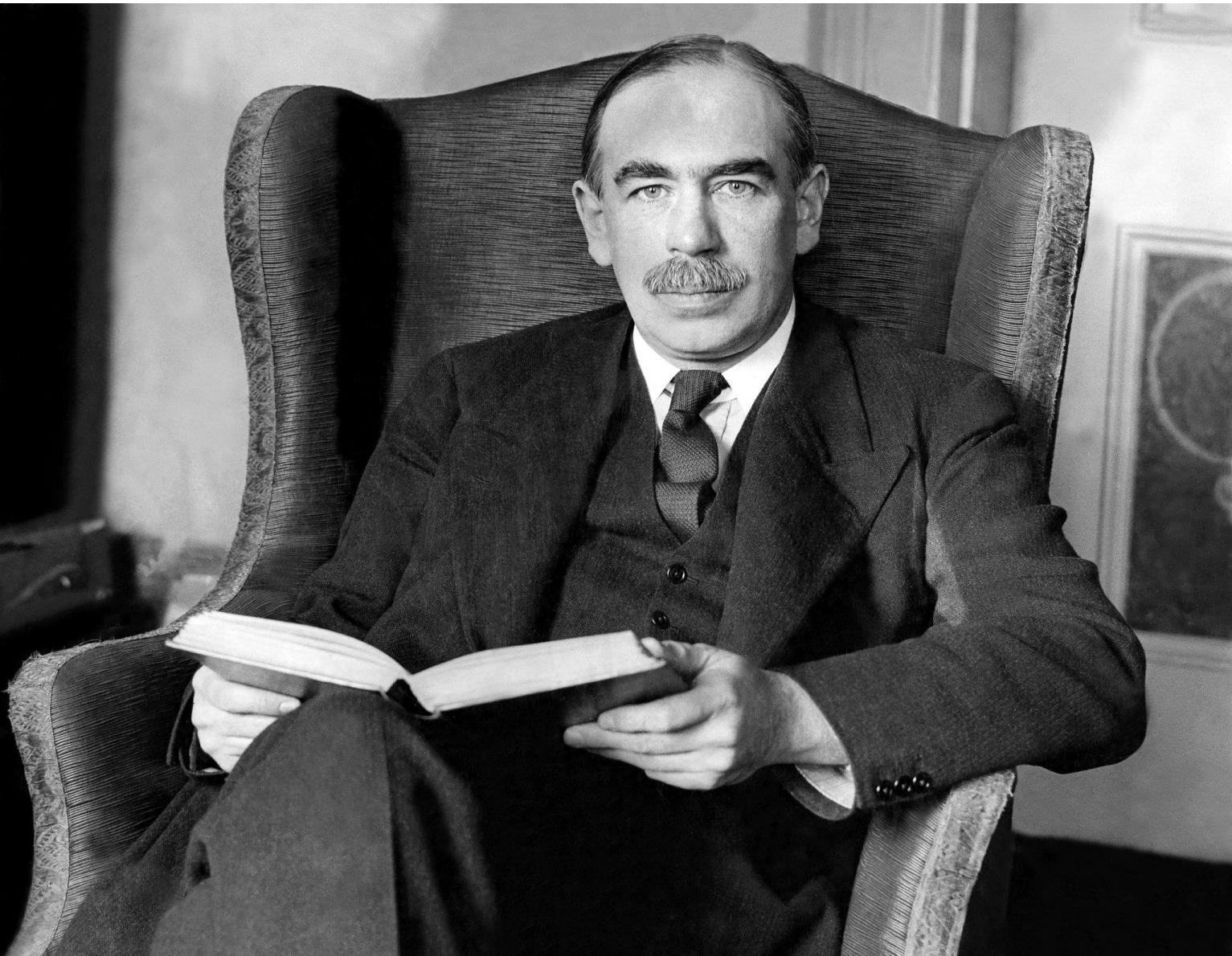
Survey of university students and recent graduates

- A Skills Assessment Test was administered on 500 students and recent graduates of public and private universities in Bangladesh, to evaluate their level of expertise on the skills which the employers have identified as important.

5. Findings from Survey of Employers

“The master-economist must possess a rare combination of gifts...He must be mathematician, historian, statesman, philosopher—in some degree.”

**- John Maynard
Keynes**

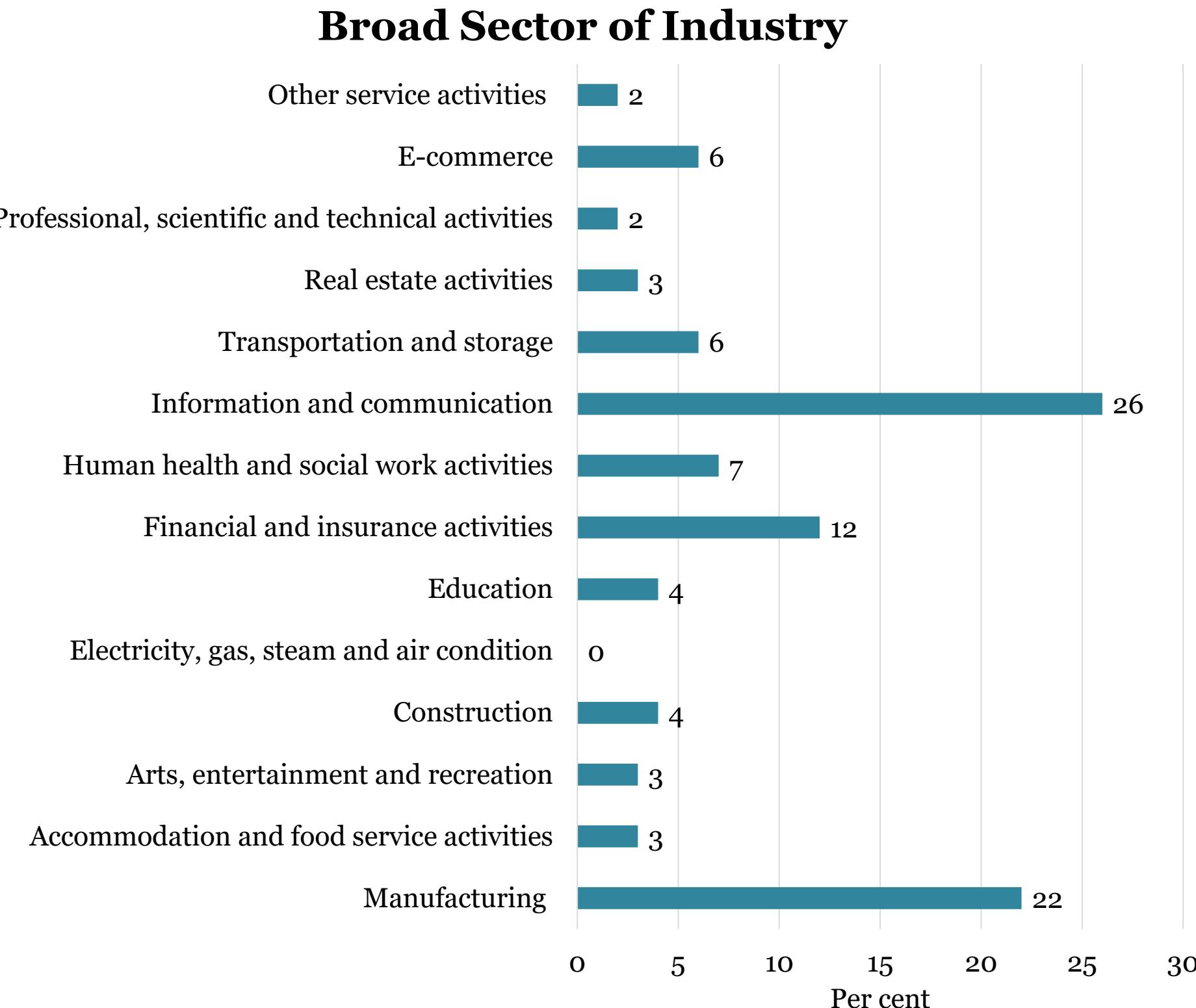


5.1 Distribution of the broad sector of industries



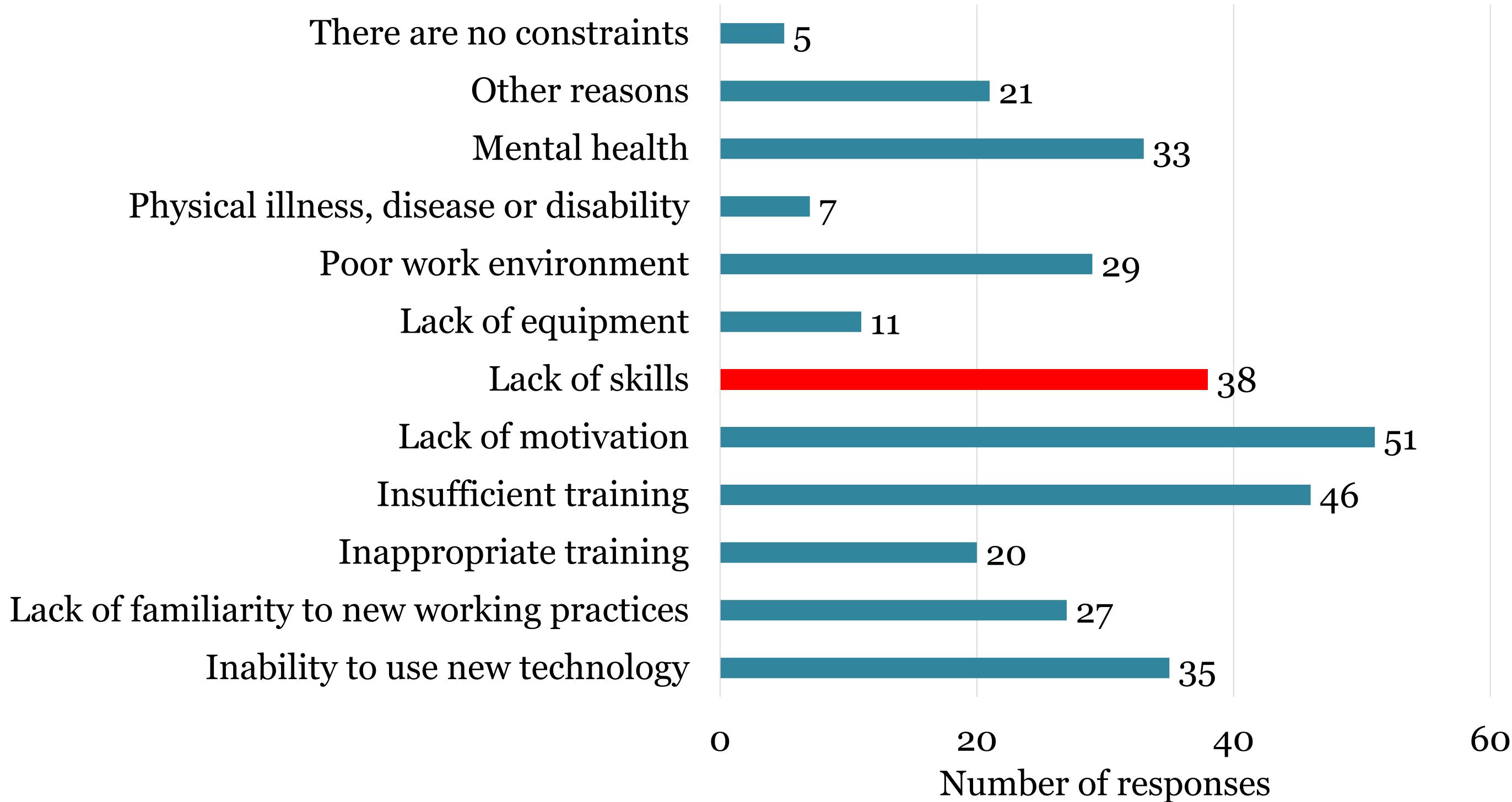
The survey respondents included HR managers, managers, executive directors and higher officials in the company who were involved in the recruitment process.

The highest number of respondents belonged to the manufacturing and information and communication sector which was 22% and 26% respectively.



5.2 Constraints faced by the employees

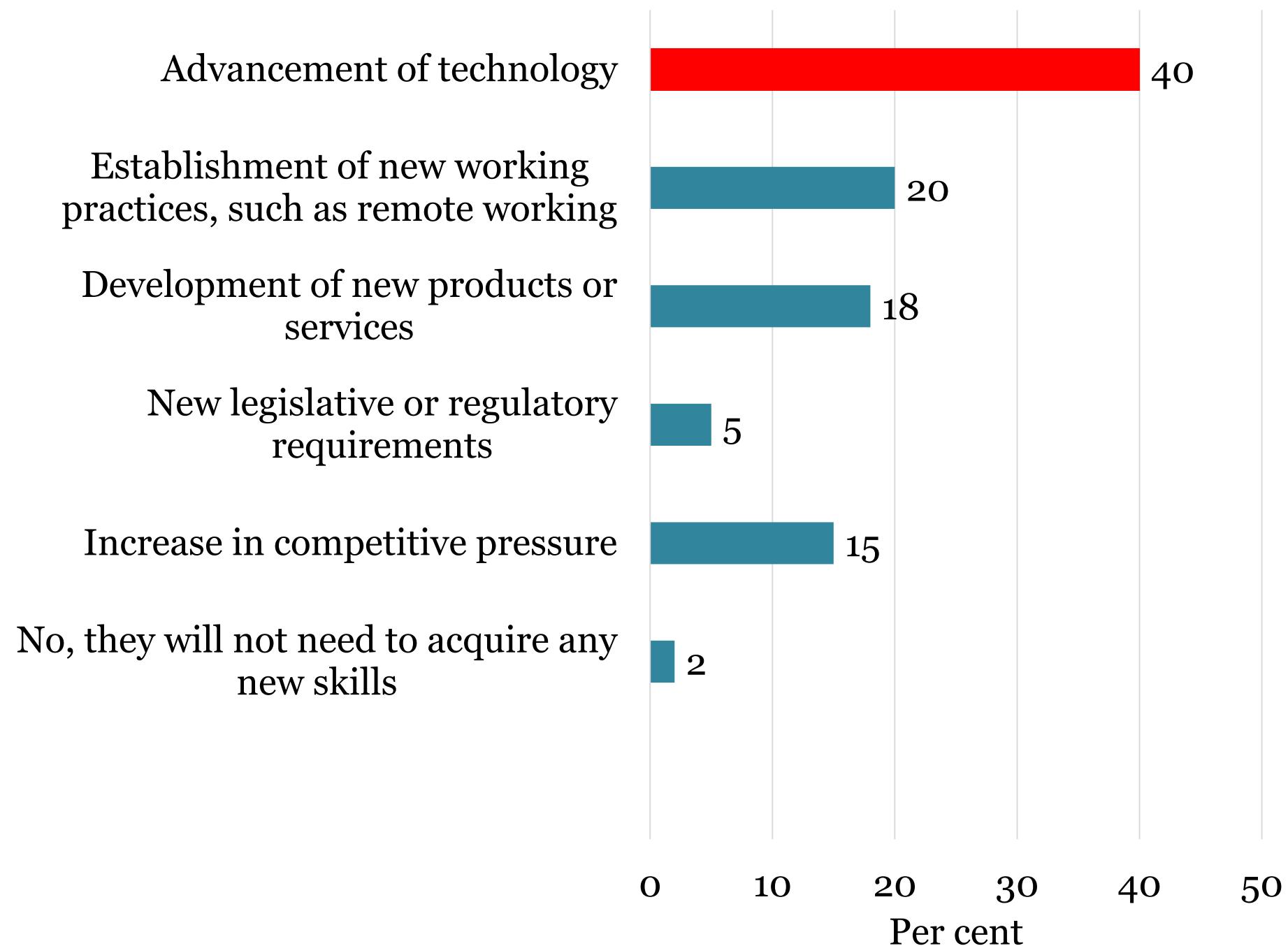
Constraints that may prevent employees from producing the best output



5.3 Impact of structural change on skills

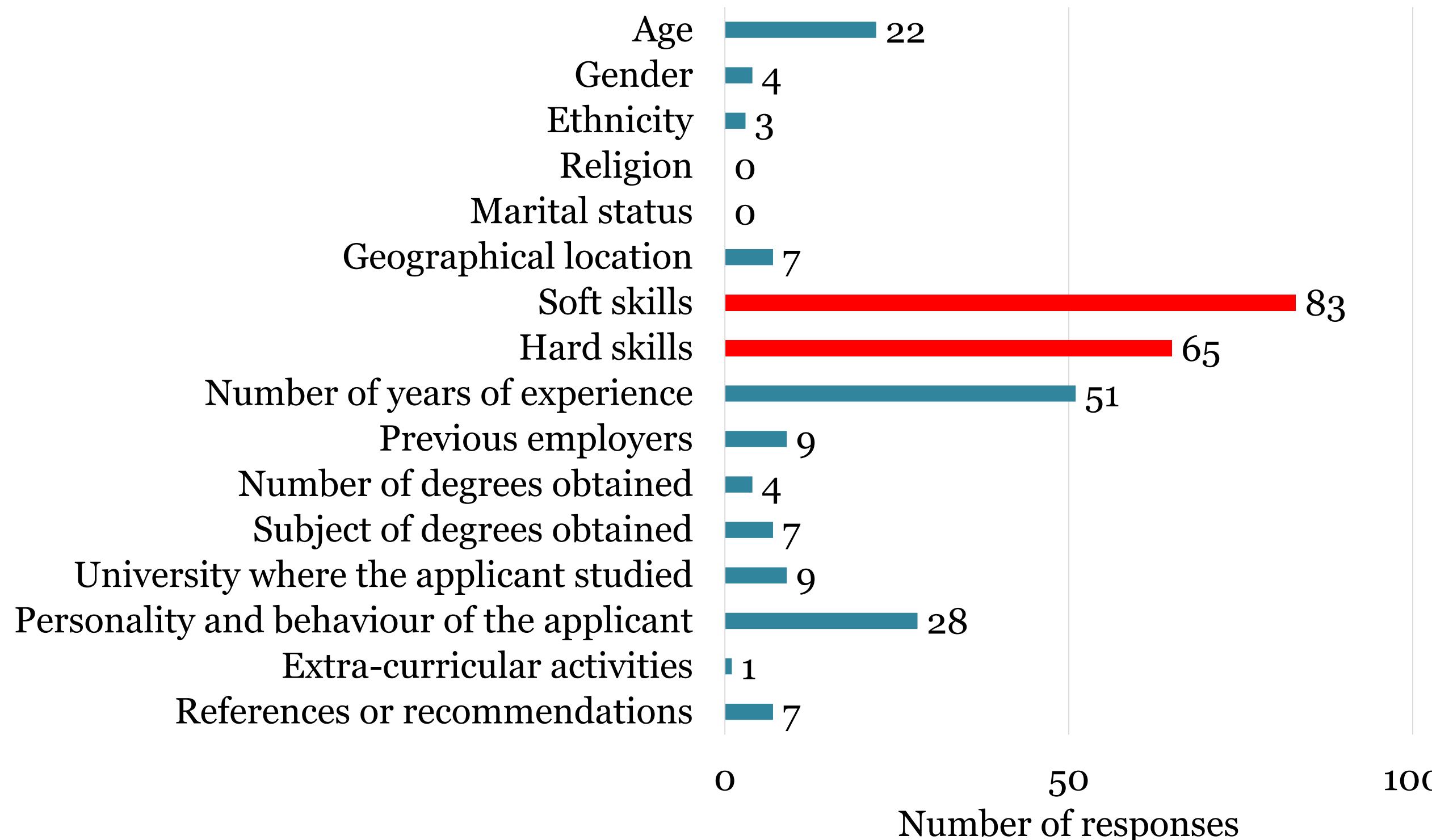
- 40% employers responded that their employees may need new skills due to advancement in technology
- 20% employers expect that the establishment of new working practices, such as remote working, may create the need for acquiring new skills
- 18% employers expect that the development of new products or services will result in a need for learning new skills.

Changes which will cause a need to acquire new skills over the next 12 months



5.4 Factors considered while making a hiring decision

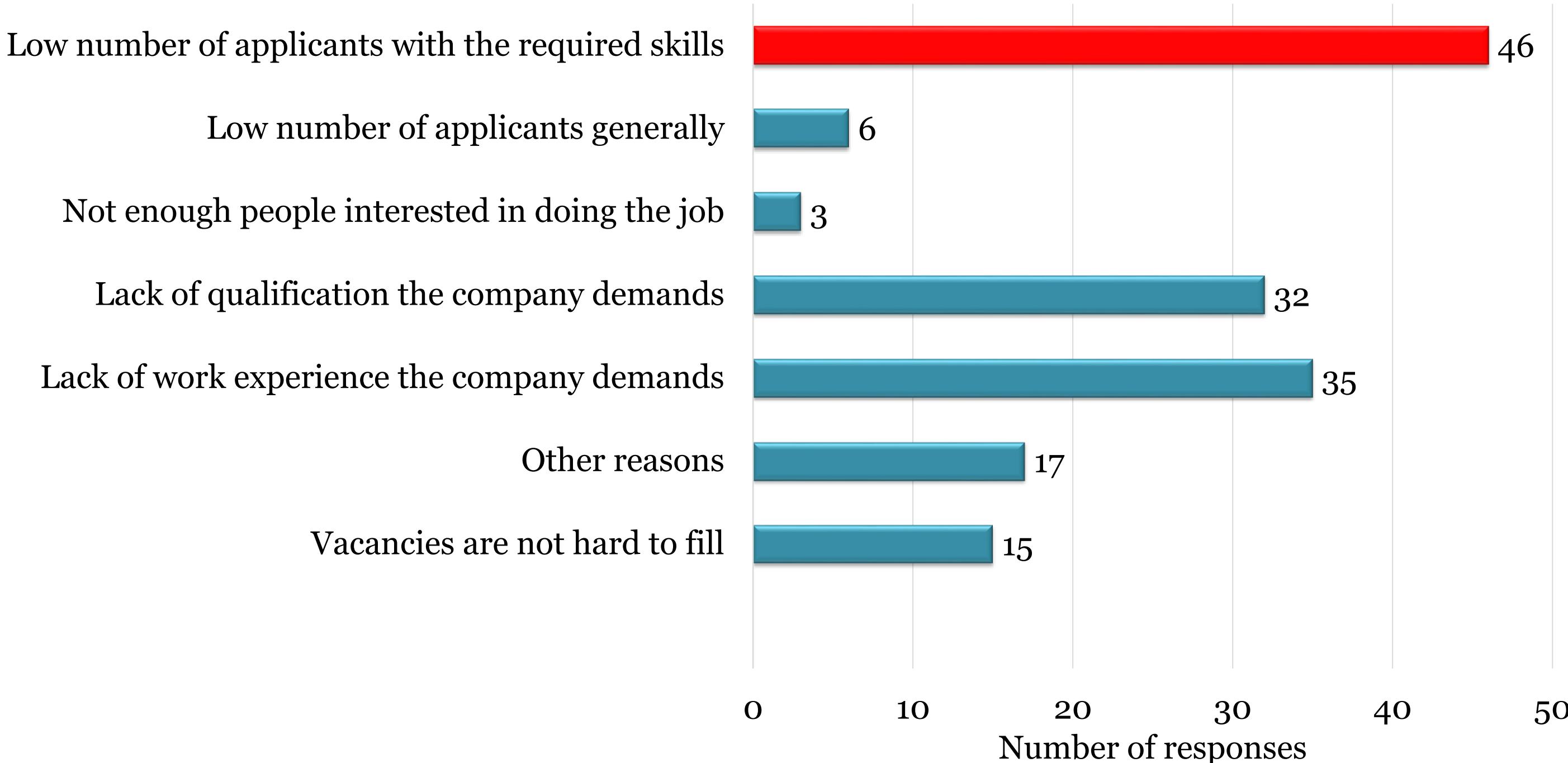
The three most important factors considered while making a hiring decision



5.5 Reasons why vacancies are hard to fill

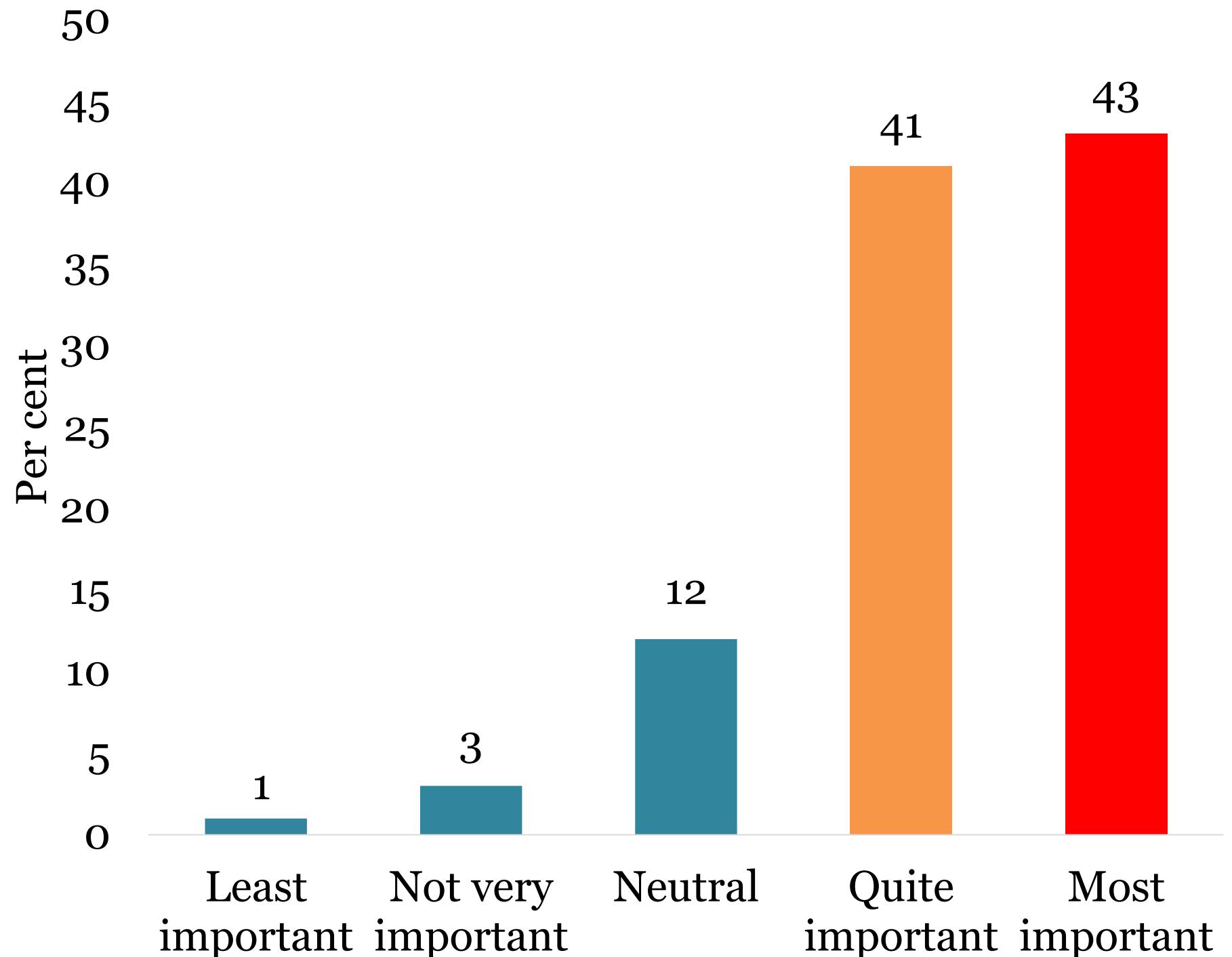


Reasons behind the difficulties in filling vacancies



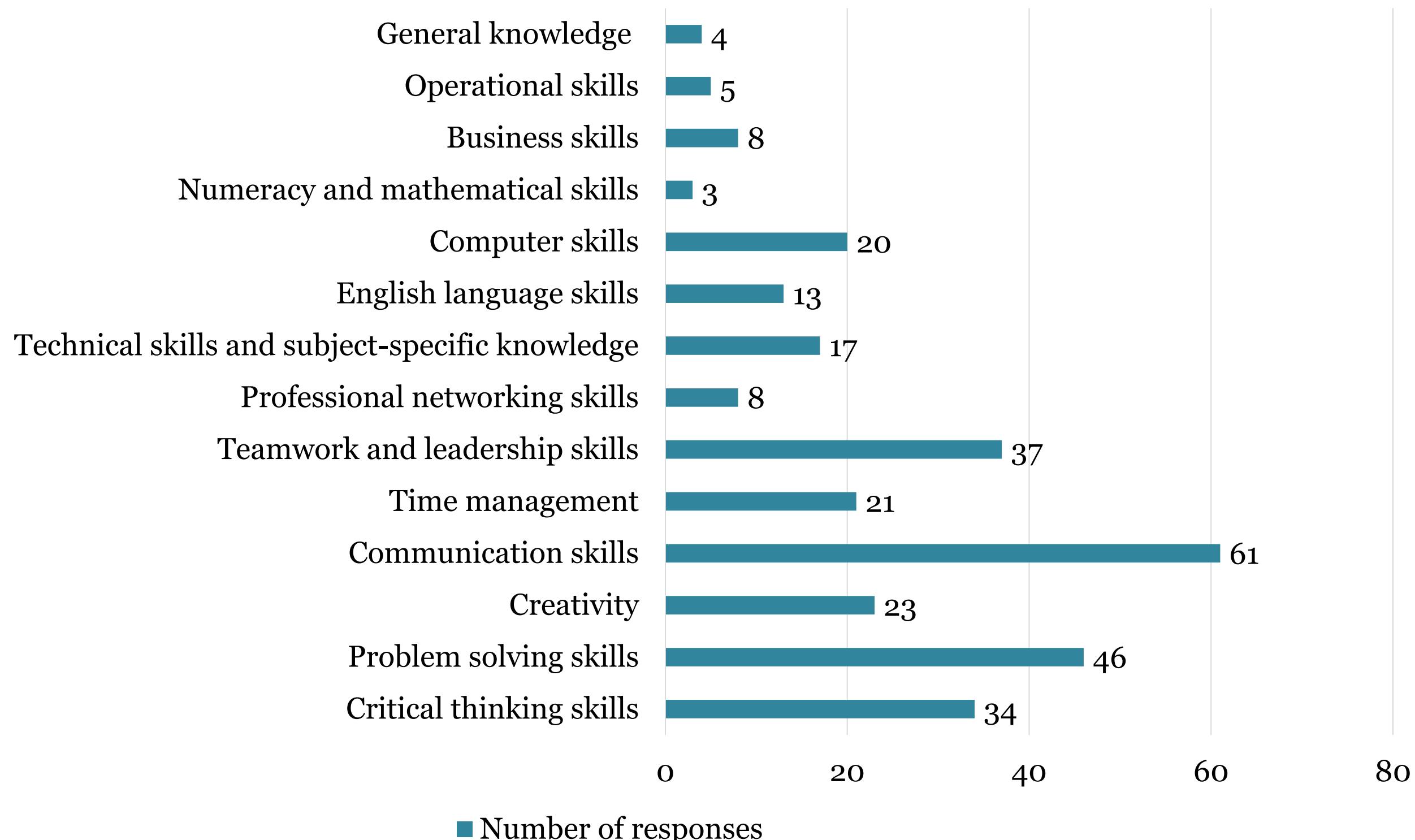
5.6 Soft skills over hard skills

Importance of soft skills over hard skills according to employers



5.7 Most important skills that employers expect to see from the graduates

Three most important skills that employers expect to see from the graduates

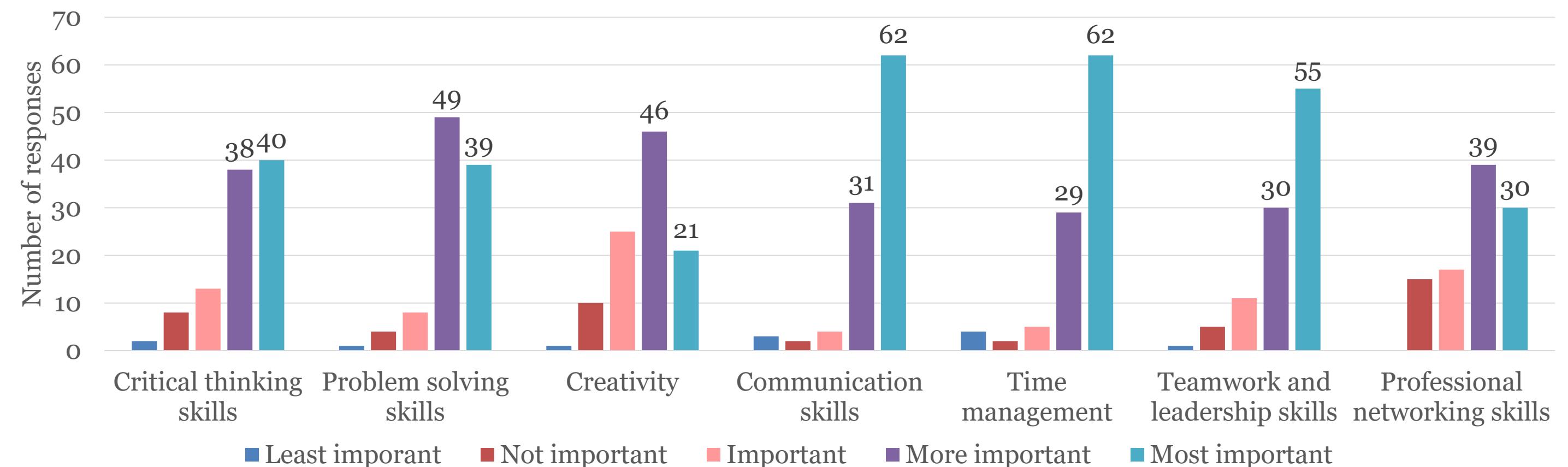


5.8 Most important soft skills according to employers

Ranking of most important soft skills according to employers

1. Communication skills
2. Time management
3. Problem solving skills
4. Teamwork and leadership skills
5. Critical thinking skills
6. Professional networking skills
7. Creativity

Soft skills considered to be most important by employers

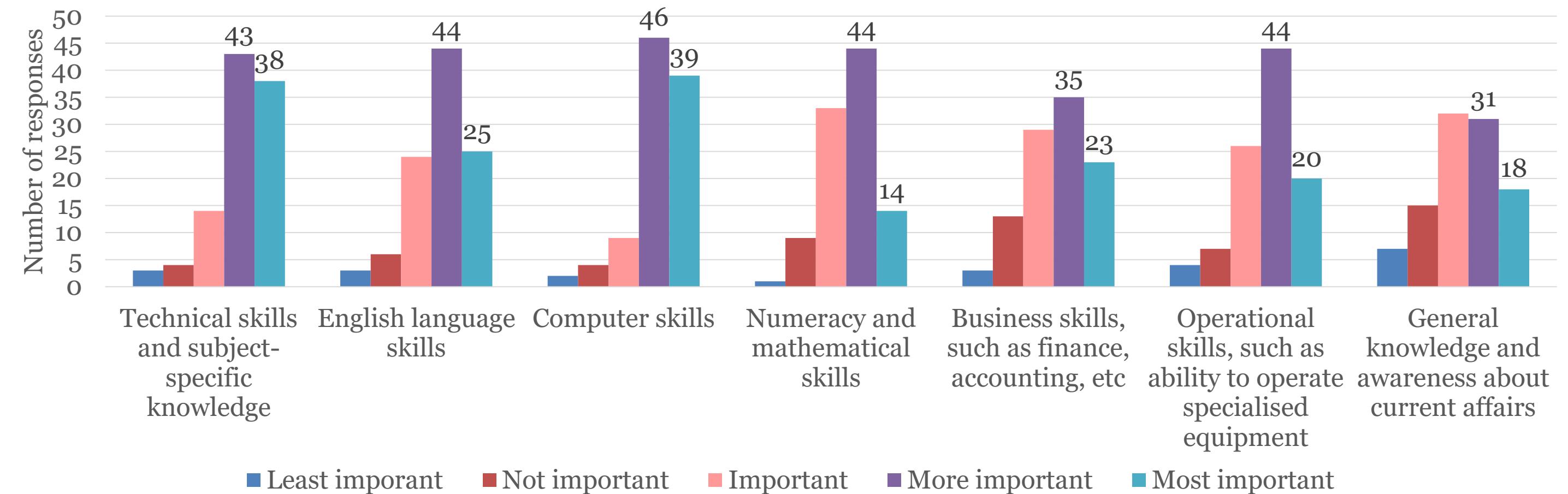


5.9 Most important hard skills according to employers

Ranking of most important hard skills according to employers

1. Computer skills
2. Technical skills and subject-specific knowledge
3. English language skills
4. Operational skills, such as ability to operate specialised equipment
5. Business skills, such as finance, accounting, etc
6. Numeracy and mathematical skills
7. General knowledge and awareness about current affairs

Hard skills considered to be most important by employers



6. Findings from Survey of University Students and Recent Graduates

7.1 Online skills assessment eligibility

Any individual was allowed to participate in the online skills assessment, as long as they fulfilled the following **criteria**:

- i) born in Bangladesh
- ii) aged between 18 to 35 years
- iii) currently not working full time in any formal job
- iv) currently studying, or have completed last university degree within the last 12 months, at any university located in Bangladesh
- v) never studied outside Bangladesh at any educational institution at any level for any duration of time
- vi) did not participate in Bangladesh Labour Force Survey 2016-17



Online Employability Checker



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Online Employability Checker of University Students and Recent Graduates

Dear Students/Graduates,

Thank you for your interest in the survey for the research study titled "Skills Gap and Youth Employment in Bangladesh". Your participation in this survey is voluntary. Should you wish to participate, please feel free to express your real opinions since participation in this discussion will not make you liable for the information you provide and your identity will remain completely anonymous. The information you reveal in this discussion will be used only for research purposes and will not be used otherwise or disclosed elsewhere. As a token of appreciation, a modest honorarium will be sent to you if you complete this survey. We heartily thank you for your kind cooperation.

- Centre for Policy Dialogue

7.2 Online skills assessment details

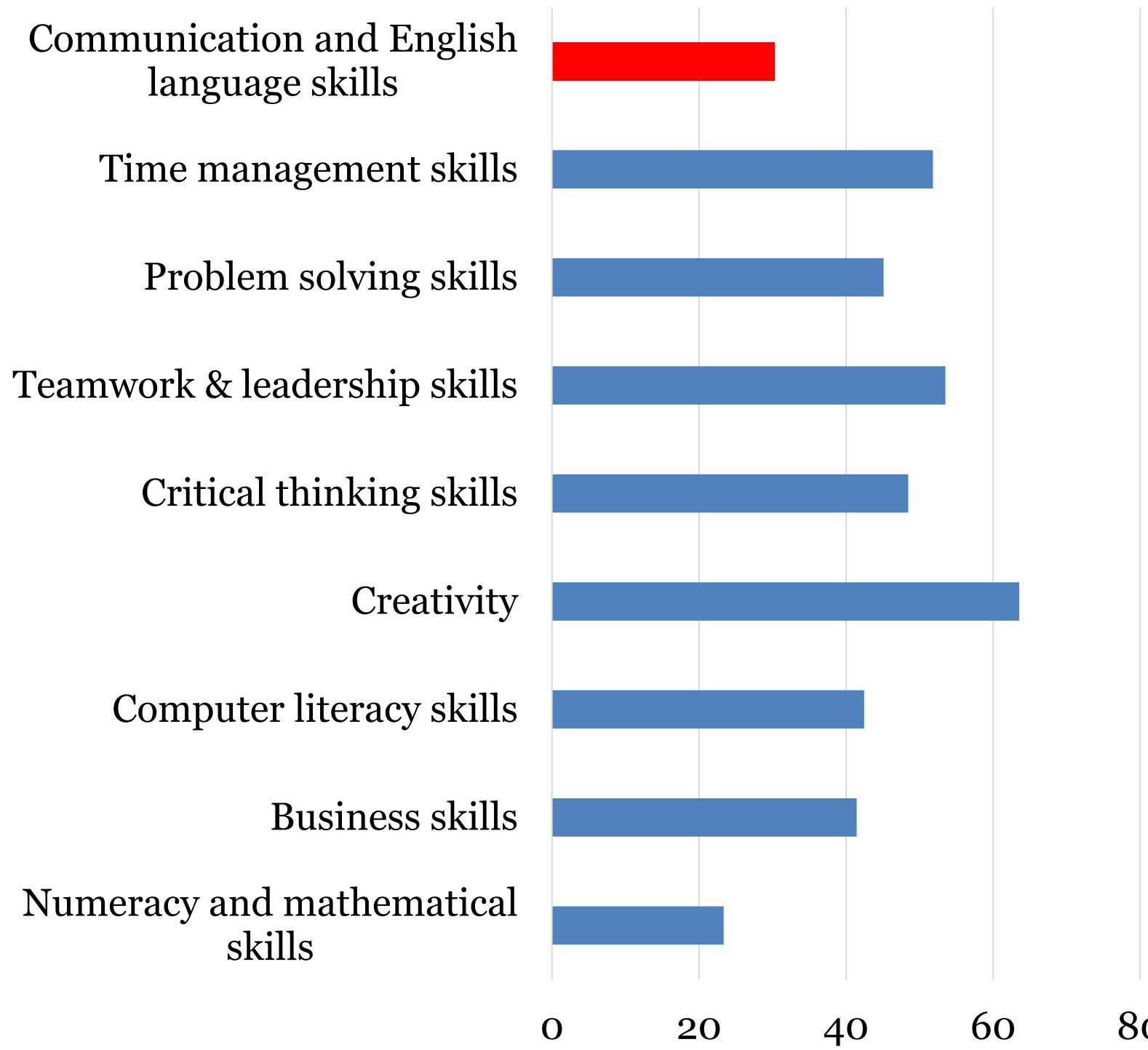
#	Name of the section	Skill tested	Soft skill	Hard skill	Number of questions	Type of questions
1	Creativity	Creativity	✓		9	Remote association test, choosing photo from a set of alternatives, identifying musical instrument from audio clip
2	Critical thinking	Critical thinking	✓		10	Logical reasoning, abstract verbal tests of induction and deduction
3	Teamwork and leadership	Teamwork and leadership	✓		7	Questions based on situations related to corporate etiquette, workplace conduct with colleagues and clients, leadership
4	Problem solving	Problem solving	✓		10	Abstract visual tests of shapes and sequences, mechanical tests of dynamics, deciphering code using a key
5	Time management	Time management	✓		10	Prioritising tasks, making decisions under time pressure, Eisenhower time management matrix

7.2 Online skills assessment details (cont)

#	Name of the section	Skill tested	Soft skill	Hard skill	Number of questions	Type of questions
6	Listening	Communication and English skills	✓	✓	10	Listening to an audio clip describing a place and then identifying the landmarks based a map of the same place, listening to an audio clip of a conversation and answering questions based on that
7	Writing	Communication and English skills	✓	✓	10	Improving sentences, identifying sentence errors, correcting sentence errors, improving paragraphs
8	Computer usage	Computer literacy		✓	10	Basic Windows operating system based computer operations, basic Microsoft Word tasks, ability to use email, ability to use a printer, basic Microsoft Excel
9	Reading	Communication and English skills	✓	✓	8	Answering questions based on a reading comprehension passage
10	Business	Business skills		✓	8	Fundamental concepts of business, management, marketing, finance, and accounting
11	Numeracy	Numeracy and mathematical skills		✓	8	Basic mathematical word problems, abstract mathematical puzzles, sequences, arithmetic, percentages

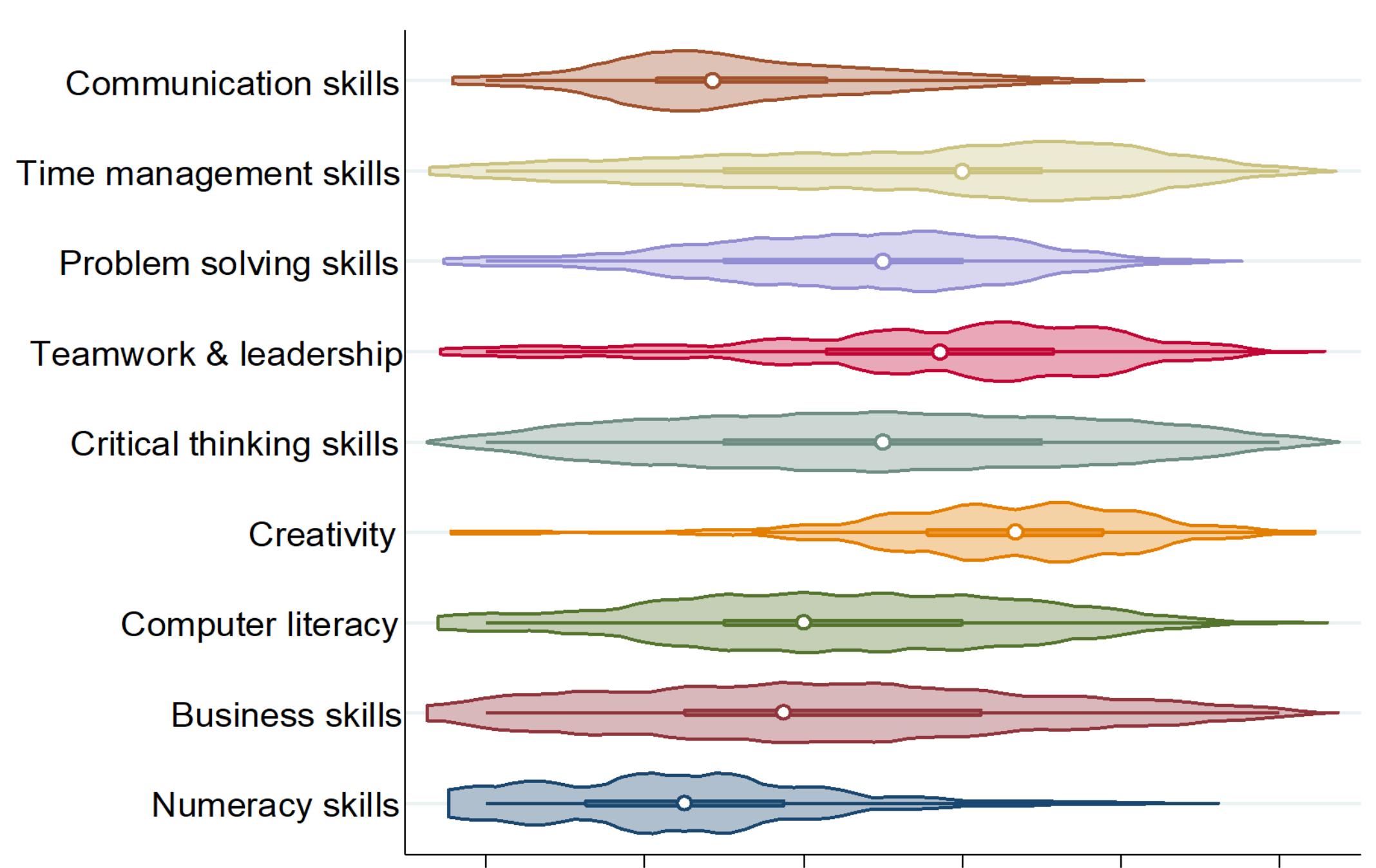
7.3 Results from online skills assessment

Average scores of university students and recent graduates in online skills assessment



The findings from the online skills assessment of university students and recent graduates show that the highest average score was obtained in creativity, whereas the lowest average scores were obtained in communication and English language skills and numeracy and mathematical skills.

7.4 Violin plot of skills assessment scores



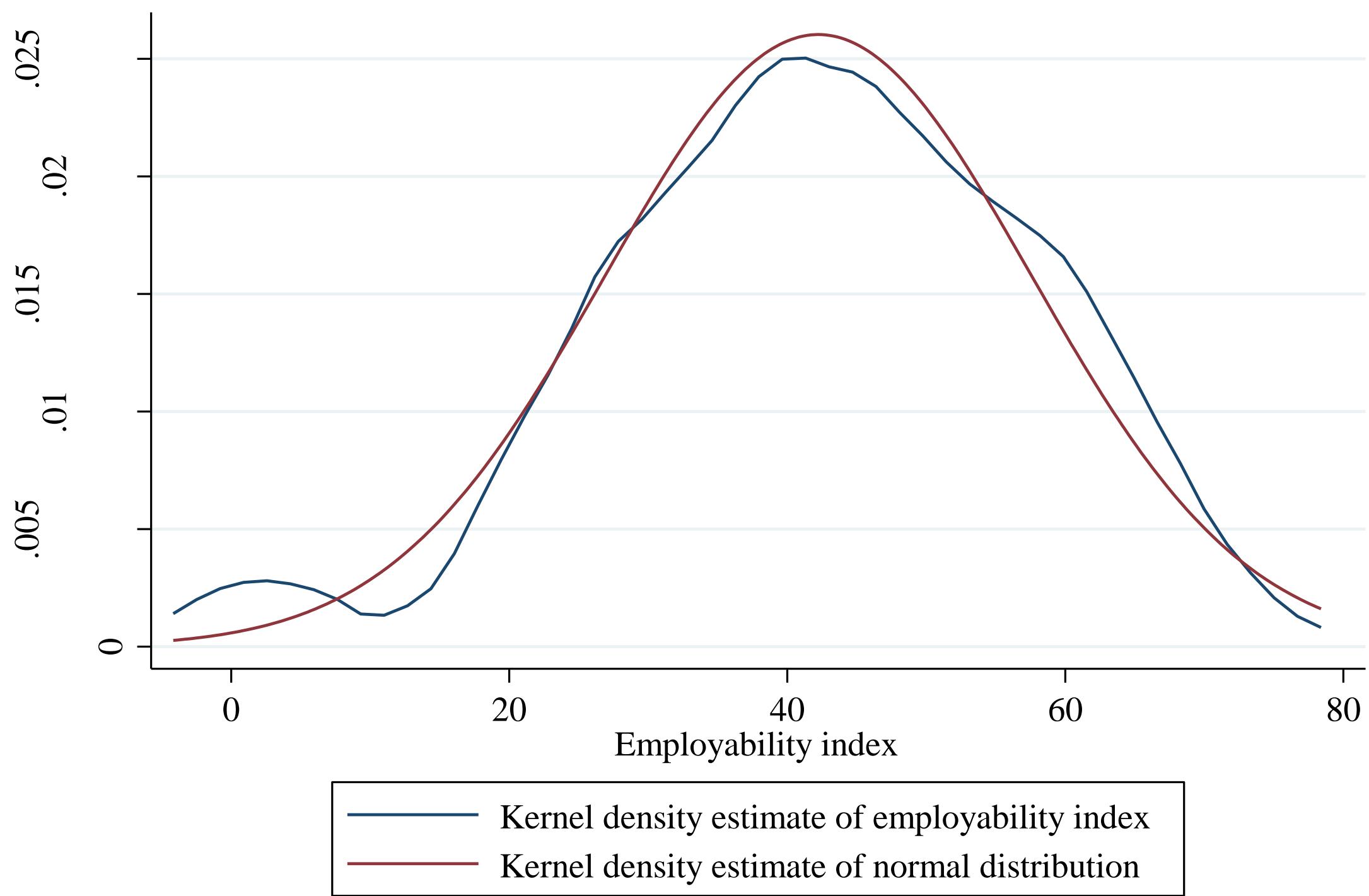
Violin plots of the scores of the skill assessment which show that the median scores for communication skills and numeracy were significantly lower than other skills such as creativity or teamwork and leadership

7.5 Calculation of the Employability Index

Name of skill	Employer preference ranking	Mark allocation in assessment	Weight assigned	Weighted value
Communication and English language skills	1	28	1.32	36.96
Time management skills	2	10	1.30	13.00
Problem solving skills	3	10	1.17	11.70
Teamwork and leadership skills	4	7	1.15	8.05
Critical thinking skills	5	10	0.77	7.70
Creativity	6	9	0.75	6.75
Computer skills	7	10	0.66	6.60
Business skills	8	8	0.58	4.60
Numeracy and mathematical skills	9	8	0.58	4.60
Total		100		100

Source: Authors' calculations based on survey data collected as part of the study

7.6 Distribution of Employability Index scores



The kernel density plot of the employability index is surprisingly close to the kernel density plot of the normal distribution.

kernel = epanechnikov, bandwidth = 4.1606

7.7 Skill preferences of employers, skill performance of university students and graduates, and skills gap

Skill	Average values	Ranking			Skills gap (preference – performance)
		Skill preference of employers	Skill performance of university students and graduates		
Communication and English skills	30	1	8		-7
Time management skills	52	2	3		-1
Problem solving skills	45	3	5		-2
Teamwork and leadership skills	54	4	2		2
Critical thinking skills	48	5	4		1
Creativity	64	6	1		5
Computer literacy	42	7	6		1
Business skills	41	8	7		1
Numeracy and mathematical skills	23	9	9		0
Employability index	41				
Overall skills gap					0

Source: Authors' calculations based on survey data collected as part of the study

6. Limitations

6.1 Some limitations of the study



- 
- Given the time and resource constraints, the survey of university graduates was conducted with a small sample and may not be nationally representative.
- The skills gap identified may not be valid over time and space, since the skills required by employers and the skills possessed by workers may change over time and may be different for labour markets in different countries.
- Only students who have access to the internet could participate in the survey. Therefore, skills of students who do not have access to the internet could not be evaluated.
- The survey itself was in English due to the lack of wide variety of standardised tests available in Bengali.
- The survey of employers was not sector specific

7. Conclusions

7.1 Findings from the surveys

- The findings of the survey of employers show that most employers tend to prefer soft skills over hard skills.
 - Within soft skills, most employers placed the highest importance on communication skills, followed by time management skills and problem-solving skills.
 - Within hard skills most employers placed the highest importance on subject specific technical knowledge, computer literacy and English language skills.
- The findings from the online skills assessment of university students and recent graduates show that the lowest average scores were obtained in communication and English language skills and numeracy and mathematical skills.
 - Kernel density plots showed that there was a high density of low scores in both communication and English language skills and numeracy and mathematical skills.

7.2 Is there a skills gap?

- Juxtaposing the skill preference ranking of the employers with the skill performance ranking of the university students and graduates showed that the greatest gap existed in communication and English language skills.
- However, no skills gap could be found overall across the nine different skills that were assessed, since the weaknesses in some skills were compensated by the strengths in some other skills.
- Hence, it may unlikely that the high level of youth unemployment and youth NEET that currently prevails in the labour market is due to a skills gap.
- However, a clear causal relationship cannot be ascertained and a general conclusion cannot be established since the samples used in the surveys were not collected randomly.

8. Recommendations

7.1 Role of government

- Comprehensively reform the education system so that the students develop soft skills along with hard skills.
- Align curriculum with market demands, ensuring that students are more equipped for the job market.
- Promote relevance of education by revising course content on a regular basis.
- Collaborate with the private-sector and invest in improving the public-sector educational institutes so that a greater number of students from low-income households may acquire quality education.
- Include skill-based curricula and place more importance on practical and real-life situations in the syllabus rather than theoretical scenarios.
- Re-design skill development curriculum, such as technical and vocational education (TVET), based on the market demand.
- Expand computer and internet connectivity, particularly in rural regions.
- Integrate and encourage skills training to include soft, advanced ICT, service industry and 4IR skills to respond to rising employer demand.
- Build a database of youth NEET, which would provide a comprehensive picture of the labour market.

7.1 Role of educational institutions

- Short courses on diverse skills, including soft-skill development, must be organized to boost the job market relevance of education.
- All educational institutions should have career counsellors who will help students identify their strengths, prepare curriculum vitae and job applications, and engage in entrepreneurship from an early age.
- Job fairs can be organized so that effective interaction between graduates and employers may inform future job seekers about the skills that are in demand in the upcoming labour market.
 - Exposure to potential occupations and their hiring criteria will assist students in preparing for their careers. Employers who are experiencing a scarcity of skilled employees may also benefit from this.
- Teachers should acquire ICT skills in order to help their students to be more skilled in computer operation and technology because employers believe that digital skill development should be prioritized.
- Programming and coding can be taught in the classroom to boost the chances of getting work in the fast-modernising manufacturing and service industries, where there is a scarcity of skilled workers.

7.1 Role of employers

- Equal employment opportunities should be provided to all capable applicants, regardless of gender, age, race, religion, ethnicity or political affiliation.
- Employment should be based on merit, and entry-level job experience requirements should be lowered to ensure that young applicants have a fair shot in the employment market.
- Companies need to create a positive work environment for all, especially women, and encourage innovation among the employees.
- Companies can hire students either on a part time basis, or during their semester break so that students can learn practically, and have an understanding of the operations of the companies and also make decisions about the kind of career that they want to build.
- Active learning can be stimulated by sending the employees to attend trainings, seminars, and workshops.
 - This will help improve soft skills like communication skills, networking skills and leadership skills.

7.1 Role of employers

- Students should take personal initiatives to develop their communication and English language skills by reading fiction and non-fiction English books, outside of their formal education
 - They can also take some online courses to improve their skills in a particular field of knowledge.
- Self-motivation can promote the drive to expand knowledge and soft skills such as problem-solving skills, critical thinking skills, time management and creativity.
 - Being focused and working towards a particular passion may help young job seekers get their desired job.
- Starting from primary level, young people should be encouraged to become entrepreneurs.
 - From an early age, they should be exposed to new business concepts and taught the skills necessary to establish and manage a firm.
 - Besides, aspiring young entrepreneurs should be given financial assistance through access to financing from financial institutions and government incentives.

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