



# Skills Gap and Youth Employment in Bangladesh

## An Exploratory Analysis

Fahmida Khatun  
Syed Yusuf Saadat  
Kashfia Ashraf  
Mohammad Abu Tayeb Taki

**FRIEDRICH  
EBERT  
STIFTUNG**  
Bangladesh



# SKILLS GAP AND YOUTH EMPLOYMENT IN BANGLADESH

*An Exploratory Analysis*

Fahmida Khatun

Syed Yusuf Saadat

Kashfia Ashraf

Mohammad Abu Tayeb Taki

**FRIEDRICH  
EBERT  
STIFTUNG**  
Bangladesh



Published in May 2022 by

---

**Centre for Policy Dialogue (CPD)**

House 40/C, Road 11 (New)

Dhanmondi, Dhaka 1209, Bangladesh.

Tel: +(88 02) 48118090, 55001185, 58156979

Fax: +(88 02) 55001181

E-mail: [info@cpd.org.bd](mailto:info@cpd.org.bd)

Website: [www.cpd.org.bd](http://www.cpd.org.bd)

Copyright © Centre for Policy Dialogue (CPD)

*Disclaimer:* The views expressed in this paper are those of the authors alone and do not necessarily reflect the views of the CPD or the FES Bangladesh Office.

*Citation:* Khatun, F., Saadat, S. Y., Ashraf, K., & Taki, M. A. T. (2022). *Skills Gap and Youth Employment in Bangladesh: An Exploratory Analysis*. Dhaka: Centre for Policy Dialogue (CPD) and Friedrich-Ebert-Stiftung (FES) Bangladesh.

*Cover photo*

Syed Yusuf Saadat

*Design concept*

Farah Nusrat

*Typesetting*

Md Shaiful Hassan

Price: BDT 300

ISBN 978-984-95073-5-2

Printed at

---

Lithograph

41/5 Purana Paltan, Dhaka 1000

# FOREWORD

Bangladesh's labour market is now dealing with the simultaneous issues of employing a large number of young people and tackling the disruptions caused by the Fourth Industrial Revolution (4IR). Employers' skill requirements are shifting as the Bangladesh economy is undergoing structural transformation. There has been an increase in the need for employees with a broad range of skills that complement their education. Employers are increasingly valuing soft skills in addition to hard skills. As a consequence, young people looking for work must possess a diverse set of skills and abilities in order to be competitive. Regrettably, when it comes to employment readiness, Bangladesh's youth may be lacking the necessary skills which the country's existing educational system cannot provide. As a result, Bangladesh is losing out on its demographic dividend because of the high rate of unemployment among the country's youth.

In the above context, the Centre for Policy Dialogue (CPD), with support from Friedrich Ebert Stiftung (FES) Bangladesh Office, has conducted this study that investigates Bangladesh's labour market to find out which skills are the most in demand. As part of this study, two online surveys were carried out to understand what skills companies want, and what degree of proficiency university students and recent graduates have in those skills. Insights from 100 non-government employers, combined with skills assessment scores from 500 young university students and recent graduates, have portrayed a picture of the current set of skills demanded by employers from different sectors of the economy and the skills possessed by youth from different universities.

## Foreword

This book is mainly intended for students in undergraduate and graduate programmes, university professors, independent researchers, think tanks, research institutions, international development organisations, and policymakers in Bangladesh, South Asia, and other developing countries. It is anticipated that the results of this research will help allocate resources more effectively in the development of market-relevant skills for Bangladeshi youth, and also lead to further research on similar topics in the future.

Dhaka, Bangladesh  
May 2022

*Fahmida Khatun, PhD*  
Executive Director  
Centre for Policy Dialogue (CPD)

# ABSTRACT

The labour market of Bangladesh is presently facing the dual challenges of employing a large young population, while coping with the disruptions caused by the fourth industrial revolution (4IR). As the Bangladesh economy undergoes structural change, the skills demanded by employers are also changing. Thus, it is crucial to understand which skills are highly demanded so that resources can be allocated accordingly. This study utilised two online surveys to understand which skills are demanded by employers and what is the level of expertise of university students and recent graduates in these skills. The findings of the survey on employers show that most employers placed the highest importance on communication and English language skills, followed by time management skills, and problem-solving 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. 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, a clear causal relationship between skills gap and youth employment cannot be ascertained; and a general conclusion cannot be established since the samples used in the surveys were not collected randomly.



# ACKNOWLEDGEMENTS

This research has been conducted by the Centre for Policy Dialogue (CPD), Dhaka. This study is part of CPD's "Skills Gap and Youth Employment in Bangladesh" programme implemented in collaboration with Friedrich-Ebert-Stiftung (FES) Bangladesh.

This report has been authored by *Dr Fahmida Khatun*, Executive Director, CPD, *Mr Syed Yusuf Saadat*, Research Fellow, CPD, *Ms Kashfia Ashraf*, Programme Associate, CPD, and *Mr Mohammad Abu Tayeb Taki*, former Research Intern, CPD.

The research team gratefully acknowledges the valuable support received from *Mr Avra Bhattacharjee*, Joint Director, Dialogue and Outreach, CPD and *Ms Farah Nusrat*, Senior Publication Associate, CPD.

The team would also like to register its sincere thanks to the officials from several institutions, and to the graduates and students from various universities who participated in the surveys which were conducted as part of this study.





# CONTENTS

<i>Foreword</i>	<i>iii</i>
<i>Abstract</i>	<i>v</i>
<i>Acknowledgement</i>	<i>vii</i>
<i>Acronyms</i>	<i>xi</i>
1. Introduction	1
2. Literature Review	5
3. Impact of COVID-19 Pandemic on Youth Skills and Employment	11
4. Conceptual Framework	13
5. Methodology	19
6. Findings From the Survey on Employers	23
7. Findings From the Survey on Students	49
8. Conclusion	55
9. Recommendations	59
References	65

**List of Tables and Figures**

Table 1	: Types of Skills	17
Table 2	: Details of the Online Skills Assessment	41
Table 3	: Results from Tests of Normality	43
Table 4	: Employability Index	45
Table 5	: Skill Preference of Employers, Skill Performance of University Students and Graduates, and Skills Gap	52
Figure 1	: Broad Sector of Industry	25
Figure 2	: Current Number of Employees in the Respondent's Company	26
Figure 3	: Constraints That May Prevent Employees From Producing the Best Output	27
Figure 4	: Structural Change Which Will Cause a Need to Acquire New Skills Over the Next 12 Months	28
Figure 5	: Companies Hire Employees with Occupation-Specific Skills	29
Figure 6	: The Three Most Important Factors Considered While Making a Hiring Decision	30
Figure 7	: Recruitment of Workers Who Are Non-Bangladeshi Nationals	31
Figure 8	: Employers Hiring Skilled Foreigners Because Bangladeshi Applicants With Proper Skills Could Not Be Found	32
Figure 9	: Reasons Behind the Difficulties in Filling Vacancies in the Companies	33
Figure 10	: Most Important Skills Lacking in the Applicants Which Makes It Hard to Fill Vacancies in Companies	34
Figure 11	: Importance of Soft Skills Over Hard Skills According to Employers	35
Figure 12	: Most Important Skills That Employers Expect From the Graduates	36
Figure 13	: Soft Skills Considered the Most Important by Employers	37
Figure 14	: Hard Skills Considered the Most Important by Employers	38
Figure 15	: Kernel Density Plots of Skills Assessment Scores	46
Figure 16	: Violin Plot of Skills Assessment Scores	51

# ACRONYMS

4IR	Fourth Industrial Revolution
BA	Bachelor of Arts
BBS	Bangladesh Bureau of Statistics
COVID-19	Coronavirus Disease
CV	Curriculum Vitae
ICT	Information and Communication Technology
ILO	International Labour Organization
IT	Information Technology
LDC	Least Developed Country
MA	Master of Arts
MICS	Multiple Indicator Cluster Survey
NEET	Not in Education, Employment, or Training
QLFS	Quarterly Labour Force Survey
RMG	Readymade Garments
SDG	Sustainable Development Goal
SWTS	School-to-Work Transition Survey
TVET	Technical and Vocational Education and Training



CHAPTER

1

# INTRODUCTION

Under the backdrop of the fourth industrial revolution (4IR), contemporary labour markets all over the world have become more competitive than ever before. This is especially the case in many least developed countries (LDCs), such as Bangladesh, which have large pools of young workers entering their labour markets each year. Consequently, employers now demand that workers have a wide repertoire of skills that complement their education. The aim of this research study is to identify the skills that have value in the labour market of Bangladesh so that resources can be invested in the development of such skills in order to increase earnings for workers and improve overall tightness of the labour market.

Nowadays, employers are not only looking for hard skills but also prioritising the need for soft skills. As a result, young job seekers are expected to have a wide range of skills and competencies for any particular job. Education plays an integral part in developing the required skill set of young individuals entering the labour market. Therefore, educational institutions should put more focus on shaping the youth with both hard and soft skills for the labour market in the era of 4IR.

The Quarterly Labour Force Survey (QLFS) 2016–17 of Bangladesh Bureau of Statistics (BBS) reveals that, while the national unemployment rate was 4.2 per cent, youth unemployment rate was as high as 10.6 per cent (BBS, 2018). The share of unemployed youth in total unemployment was 79.6 per cent (BBS, 2018). Research has shown that, in Bangladesh, the unemployment rate was 2.7 per cent among those who have completed primary school and 11.2 per cent among those who have completed tertiary level education (Rahman *et al.*, 2021). QLFS 2016–17 also indicated that unemployment was highest among youth with secondary level education (28 per cent) (BBS, 2018). The graduate unemployment rate in 2015 was 32 per cent and it went up to 43 per cent in 2019 (BBS, 2018). The current

educational system does not seem to build enough technical and vocational skills which have the potential to create favourable labour market outcomes (Rahman *et al.*, 2021). In 2016–17, almost 30 per cent of the youth of Bangladesh were not in education, employment, or training (NEET) (BBS, 2018). In Bangladesh, the percentage of female NEET is higher than male NEET in every division and the percentage of married female youth NEET is significantly higher than the percentage of unmarried female youth NEET (Khatun & Saadat, 2020). On average, the unemployed youth were found to be more educated than the employed youth in Bangladesh (Khatun & Saadat, 2020).

This implies that, in Bangladesh, education is not empowering youth with the right skill sets which can be deemed employable in the job market. Prevalence of such high unemployment among youth implies that Bangladesh is being deprived of the productivity and potential of this large workforce. At this juncture, it is of paramount significance to conduct a study that can pinpoint skills which are highly rewarded in the current labour market. Such research can enlighten job-seekers and encourage policymakers so that resources are efficiently allocated towards building market relevant skills. Consequently, the existing skills gap in the labour market can be narrowed. This may be conducive to the achievement of Sustainable Development Goal (SDG) targets 8.5 (achieve full employment) and 8.6 (reduce youth NEET) (UN, 2019).

This research study aims to explore which skills are most highly demanded in the labour market of Bangladesh. In the aforementioned context, the present study will address the following research questions:

1. Is there any skills gap in the labour market of Bangladesh?
2. If such gap exists, then:
  - a) What are the skills which are most highly demanded by employers?
  - b) What is the level of expertise of potential job seekers in these skills?

It is anticipated that this study will lead to two research outcomes: i) improved understanding of the skills that are relevant in the labour market of Bangladesh; and ii) empirical evidence of skills gap in the labour market of Bangladesh.



The remainder of this book is structured as follows: Section 2 reviews some of the past literature on the topic, Section 3 discusses the impact of COVID-19 on youth education and employment, Section 4 builds the conceptual framework of the study, Section 5 explains the research methodology, Sections 6 and 7 describe the findings from the surveys, and Sections 8 and 9 present concluding remarks and recommendations respectively.

CHAPTER



# LITERATURE REVIEW

**B**angladesh is now showing signs of a youth bulge, which means that it is well-poised to reap the benefits of a demographic dividend if it can capitalise on the potential of its vast young labour force. Conventionally, the entry point for the discourse on youth unemployment has been education. Ironically, research has shown that each additional year of schooling increases the probability of entering NEET status by 1.16 per cent for male youth and 1.07 per cent for female youth (Khatun & Saadat, 2020).

On the supply side, education and training institutions are often unsuccessful in educating young adults with the proper skills and expertise that employers demand. Weak skills limit the employment opportunities available to young graduates (Solutions for Youth Employment (S4YE) and LinkedIn, 2019). The existence of the skills gap in Bangladesh may be due to the undergoing structural transformation which makes it difficult for the potential job seekers to cope with the rapidly changing skills demand of the employers (Khatun & Saadat, 2020).

The structures of economies have been changing in many developing countries as the world is transforming rapidly during the 4IR. On the demand side, lack of quality job creation and inadequate economic development have made it difficult to close the skills gap (Solutions for Youth Employment (S4YE) and LinkedIn, 2019). In developing countries, the unemployment rate among graduate and postgraduate students is the greatest, showing that the labour market plays a detrimental role in retaining educated young adults (Bisht & Pattanaik, 2020).

In a survey conducted by the International Labour Organization (ILO) in Bangladesh, it was found that the proportion of unemployed youth who

searched jobs for more than a year was around 46.8 per cent (GED, 2019). School-to-Work Transition Survey (SWTS) findings have revealed a high correlation between a young person's educational level and their labour market transition, as 46.7 per cent of tertiary educated youth completed their transition to a stable or satisfactory job, compared to 30.5 per cent of secondary educated youths and 41.2 per cent of primary educated youth (ILO, 2016). Education level is found to be inversely proportional to the probability of entering NEET status among Bachelor of Arts (BA) and Master of Arts (MA) graduates in the country (Murshid *et al.*, 2019).

According to a recent study, the agro-food industry in Bangladesh has the largest skill gap, followed by the readymade garments (RMG) sector (SEIP, 2017). According to the BIDS study report (SEIP, 2017), the skill gap in the information technology (IT) sector of Bangladesh was also found to be quite high since the demand was mostly for skilled jobs. Skills mismatch is a reflection of the fact that education alone cannot bridge labour market disparities. Computer skills, which may be used to complement education, are becoming more essential in modern labour market (Khatun & Saadat, 2021). In Bangladesh, about 96 per cent of individuals who do not own a computer have never used a computer; whereas, among people who have a computer in their house, 67 per cent have never used it (BBS, 2015). This shows that the people who cannot afford to have a computer have poor computer literacy and weak ICT (information and communication technology) skills. Around 81 per cent of the youth in rural areas lack numeracy, reading and ICT skills (BBS and UNICEF Bangladesh, 2019). Computer literacy skills have been found to be rare among the women in Bangladesh. According to the Multiple Indicator Cluster Survey (MICS) 2019, only 4.6 per cent of all women had used a computer at least once in their lifetime (BBS and UNICEF Bangladesh, 2019). Moreover, only 1.4 per cent of all women from both rural and urban areas carried out computer related activities in the last 3 months prior to the MICS 2019 (BBS and UNICEF Bangladesh, 2019). Two thirds of the youth in Bangladesh who got married early did not possess any literacy skills, while half of them lacked basic ICT skills (UNICEF Bangladesh, 2020). Furthermore, research has shown that, in Bangladesh, workers who have used computers earned 17 per cent more than workers who did not use computer (Khatun & Saadat, 2021).

According to McDonough's most recent skills index, the shortfall in programming and software skills is roughly equivalent to the deficit in executive functioning skills such as time management and problem-solving skills. The most efficient approach for companies to reduce skills gap is providing training on both the hard and soft skills which are vital for their positions. In order to do so, companies must first obtain knowledge of industry-wide skills trends, their specific skills shortages, and the underlying causes of both so that they can optimise the impact and return of their staff training and development spending (McDonough, 2017).

As the rate of job creation is slowing down in Bangladesh, it is likely that it may eventually give rise to social unrest and an increase in criminal activities (Rahman *et al.*, 2021). Lack of sufficient number of skilled workers could be a reason behind the low level of youth employment in Bangladesh. Even though there has been a positive growth in tertiary education at universities, the pool of unemployed youths is growing rapidly. In fact, Bangladesh's employers are hiring people from foreign countries incurring a total outflow of USD 2 million a year keeping its own country's youths unemployed (Rahman *et al.*, 2021). Empirical evidence shows that economic growth and investment in education are positively correlated. Therefore, it has become vital for Bangladesh to implement optimum education and human resource development policy (Rahman *et al.*, 2021).

The National School Assessment 2015 showed that average scores for Bangla and Mathematics in Grade 3 and Grade 5 dropped in 2015 compared to 2013 (MoPME, 2017). This may be due to a high student–teacher ratio and the lack of qualified teachers. Research has shown that at grade 8, only 35 per cent of the students in Bangladesh were competent in mathematics (World Bank, 2013). In 2017, Bangladesh was ranked 107 out of 137 countries in terms of quality of math and science education, where rank 1 indicated the best quality and rank 137 indicated the worst quality (World Economic Forum, 2017). In 2016, the teacher–student ratios in technical and vocational educational institutes were 1:27 (BANBEIS, 2017), which was short of the corresponding target of 1:12 set out in the National Education Policy 2010 (GoB, 2010). Classroom observation and structured interviews have found that private university students may

have an advantage in the labour market over public university students in Bangladesh, due to their higher proficiency in English (Farooqui, 2007).

Since education is an investment in human capital, the decision to invest in education, just like any other investment decision, will be influenced by potential returns from the market. Returns to higher education in Bangladesh were found to be only 12.8 per cent (Asadullah, 2006). This was much lower than some of the South Asian countries. For example, Psacharopoulos and Patrinos estimated that returns to higher education was 18.2 per cent in India, 31.2 per cent in Pakistan, and 16.1 per cent in Sri Lanka (Psacharopoulos & Patrinos, 2004). The low returns to higher education in Bangladesh raise questions regarding the effectiveness of higher educational institutions in Bangladesh in developing the cognitive and analytical skills of graduates. In 2019, Bangladesh was ranked 123 out of 141 in terms of the skills of its current workforce, and 111 out of 141 in terms of the skills of its future workforce (World Economic Forum, 2019).



CHAPTER

3

**IMPACT OF  
COVID-19 PANDEMIC ON  
YOUTH SKILLS AND  
EMPLOYMENT**



**T**he COVID-19 crisis has adversely affected the education and training of youth all over the world. The disruption caused by the pandemic had a detrimental impact on the skills and employability of future workforce.

According to Asian Development Bank (2021), in 2020, more than the half of all students in South Asia had no access to education during lockdown. As a result, there was a loss of learning that may diminish the future productivity and skills of the youth. To make up for the lost school days, digital and online modes and platforms, such as Zoom, Google Classroom, television, radio, and even government websites, were used to impart education and training. While remote learning did lessen the loss of learning owing to school closures, but its effectiveness was limited due to the low availability of electronic devices such as smartphones, computers and televisions in the South Asian countries.

Bangladesh's youth has also been severely affected by the COVID-19 pandemic. According to a research by the ILO, the government-mandated closure of schools, colleges, universities and training centres has affected over 70 per cent of youth who are in education, or in education and working simultaneously (ILO, 2020a). Education, training, and work have all been affected by the COVID-19 pandemic, and their future is uncertain (ILO, 2020b). According to ILO, one in six youth globally had to stop working since the outbreak of the coronavirus and about 14 per cent of those who continued working faced a reduced income (ILO, 2020a). Covid has increased the graduate unemployment rate in South Asian countries from 47 per cent to 58 per cent in 2020 and intensified the dearth of job and business opportunities, worsening graduate unemployment (Shahriar *et al.*, 2021). On a positive note, the pandemic led to the creation of jobs in sectors such as ICT, e-commerce, agro-based foods, healthcare services, and creative media (Shahriar *et al.*, 2021).

CHAPTER

4

# CONCEPTUAL FRAMEWORK

Whilst there are many theories explaining skills gap, in the following exposition we explore two theoretical concepts relevant for understanding the current labour market of Bangladesh to mitigate youth unemployment and skills gap in Bangladesh. These two theories are the Michael Spence's Signalling Model and Pissarides' Job-Matching and Beveridge Curve.

### **Michael Spence's Signalling Model**

Signalling is any activity undertaken by an individual with the intention of affecting the actions and perceptions of others (Riley, 2018). Michael Spence, in his signalling model, stated that before hiring an employee, the employer is unaware of the productive capabilities of the employee (Spence, 1973). In the labour market, these capabilities are manifested through indicators such as educational background, academic performance, job or internship experience, communication skills, computer literacy skills and other cognitive and job-specific technical skills. These indicators are referred to as signals and these signals are alterable by the individual. Employers observe signals such as education, and computer literacy before making a recruitment decision. In order to be deemed highly qualified for that specific position, the individual will invest in education and training as there might be sufficient return for him. However, investment in such signals like education is expensive (Spence, 1973). Therefore, cost of education can be regarded as signalling cost. Other signalling costs include psychic costs, monetary costs and other costs.

Spence argued that signalling costs are inversely proportional to the ability of acquiring education. Individuals with higher productivity are able to acquire education at a lower cost. Hence, we can say that people who have lower costs of attaining education are comparatively more productive

on the job (Ehrenberg & Smith, 2015). The low signalling cost for some productive workers is a useful signal for the employer because it helps them determine the marginal productivity of the employee. A signal like educational attainment can be used as a hiring standard for firms to select a suitable employee whose productivity can eventually increase the firm's profits (Spence, 1973).

Through the course of discussions with several employers, it has been revealed that many employers in Bangladesh also make use of signals to estimate the skills of job applicants. For instance, the vast majority of white-collar job advertisements in Bangladesh usually include English language skills as one of the required or desired skills. However, many jobs actually do not require an employee to actively use English on a day-to-day basis. Nevertheless, employers still continue to advertise their requirement for English language skills since they feel that such skills are important signal of other skills. Nowadays, Bangladeshi employers mostly use such signals to hire young individuals with little or no job experience. Therefore, the youth of Bangladesh can learn about these signalling tools to strengthen their job profile and improve their chances of landing on a job after graduation.

### **Pissarides' Job-Matching and Beveridge Curve**

Matching, also known as job-matching, is the process through which a company determines whether the qualities possessed by the worker complement the company, which in turn allows the company to make a decision about the employability of that worker (Moscarini, 2018). The matching function, which relates to hiring unemployed workers and job vacancies, is the fundamental element of Pissarides' equilibrium model (Jackman, 2018). In this model, the possibility of a worker receiving a job offer is determined by the ratio of vacancies to unemployment in the relevant labour market. From this model, it is possible to generate the Beveridge curve (Jackman, 2018).

The Beveridge curve depicts an inverse relationship between unemployed workers and job vacancies. It is a convex and negatively sloped curve that gives us an idea about the condition of the labour market (Yashiv, 2018). The Beveridge curve demonstrates that in an economy, the influx

of workers into unemployment ultimately equals the outflow, resulting in an equilibrium. According to the Beveridge curve, vacancies represent the demand of jobs by the workers. The Beveridge curve is suitable for understanding the tightness or efficiency of the labour market. A high level of vacancy and low level of unemployment would indicate a tight labour market (Riley, 2018). If the Beveridge curve is close to the origin, it indicates that the labour market efficiency or tightness is high, whereas if the curve is far from the origin, it indicates that the labour market efficiency or tightness is low. The fundamental idea illustrated by the Beveridge curve is the search and matching theory, in which employees and employers engage in costly searches that lead to random matching (Riley, 2018). The speed of matching is relatively fast if the skills required by the job vacancies are similar to the skills of the unemployed workers. In contrast, if unemployed individuals take a long time to fill new vacancies, it implies that the labour market is inefficient and that a skills gap may exist.

In a country like Bangladesh, where the economy is experiencing structural change, such a skills gap is likely to emerge. This is because structural change tends to modify employers' demands, and these changes in employment requirements can sometimes happen at a quicker rate than what workers can cope with. As a result, workers are underprepared for the skills according to the prospective employers' demand. This leads to a lengthy job search and matching process in which firms struggle to locate qualified employees and employees struggle to find qualified employers. New entries into the labour market also have an impact on the unemployment–vacancy nexus. If newcomers have the necessary skills, job openings will be filled swiftly, and the market will become more efficient. However, if the newcomers lack the necessary skills, jobs will remain unfilled for extended periods of time, and unemployment will rise. Given that the Bangladesh's economy is experiencing structural transformation and that the skills gap is contributing to unemployment, it is important to dig further into the issue to learn which skills are most in demand by employers and which skills are most typically missing in job candidates.

### **Types of Skills**

Before delving into the analysis of the skills gap in Bangladesh labour market, it is important to have a clear understanding of what is meant

by a skill and which skills will be relevant to this study. In Table 1, the desirable skills in the job market are categorised into two types—hard skills and soft skills.

**Table 1: Types of Skills**

Soft Skills		Hard Skills	
1.	Communication skills	1.	Subject-specific technical knowledge
2.	Problem solving skills	2.	General knowledge and awareness about current affairs
3.	Critical thinking skills	3.	Computer literacy
4.	Creativity	4.	Language skills
5.	Time management skills	5.	Numeracy and mathematical skills
6.	Teamwork and leadership skills	6.	Operational skills, such as ability to operate specialised equipment
7.	Professional networking skills	7.	Business skills, such as finance, accounting, management, marketing, etc.

**Source:** Authors' compilation based on skills categorisation and skills hierarchy model (Aken & Michalisin, 2007).

Soft skills are skills related to a person's personality traits, attitudes, behaviours and qualities that determine his or her relationship with others in a social environment (Tsirkas *et al.*, 2020). These soft skills are based on actions and experiences, such as idealism, values, and emotions (Sopa *et al.*, 2020). On the other hand, hard skills are cognitive and technical skills associated with an individual's capability to perform a certain goal, activity, operation or task (Tsirkas *et al.*, 2020). Hard skills are associated with knowledge in science, technology, and technical abilities (Sopa *et al.*, 2020). This includes job-specific skills such as practical skills, business skills, language skills, and computer literacy skills. Both soft skills and hard skills increase an individual's productivity significantly, and also increase the chance of employment (Balcar, 2016).



CHAPTER

5

# METHODOLOGY



The proposed study was carried out using primary data collected through two surveys: a survey on employers, and a survey on university students and recent graduates. In the survey on employers, hiring managers of 100 non-government employers from various sectors of economy were interviewed to understand what are the skills they are looking for in potential employees. Non-government employers were selected from companies such as, inter alia, pharmaceutical companies, hotels and resorts, telecommunication companies, banks, real estate development companies, architectural and engineering firms, research organisations, development sector organisations, higher education institutes, hospitals, law firms, and accounting and auditing firms. Owing to time and resource constraints, a flexible purposive sampling strategy was used, with the overall goal of obtaining responses from as many different sectors as possible. Based on the information provided by the employers, a Skills Assessment Test was designed by the research team using various international standardised test. A draft Skills Assessment Test was sent to the hiring managers who participated in the survey of employers, for review and feedback. Based on the comments received from the hiring managers, the Skills Assessment Test was finalised.

The survey on students and graduates was carried out on 500 young university students and recent graduates, aged between 18 and 35, from both public and private universities in Bangladesh. These students and young graduates were from different fields of study including Medical Science, Business Management, Engineering, Law, Architecture, Economics and Social Science. They were students pursuing their bachelors and master's degree, as well as young graduates who graduated in the past 12 months, and were looking for jobs. They had to take an online Skills Assessment Test which helped us evaluate their level of expertise on the skills which the employers have identified as important. Data from the Skills Assessment

Test were analysed in order to understand the gap between the skills required by employers and skills possessed by university graduates.

The Skills Assessment Test was accompanied by a short survey questionnaire. This questionnaire collects data on other variables which may influence youth employment, such as, inter alia, number of years of education of the respondent, number of years of education of the respondent's father, number of years of education of the respondent's mother, respondent's father's occupation, respondent's mother's occupation, language of instruction during primary education and secondary education, gender, and existence of physical disabilities.

Among the 500 respondents at the graduates' survey, 34.1 per cent were born in Dhaka, 11.1 per cent were born in Cumilla, 7.9 per cent were born in Chittagong, and the remaining were born in other parts of Bangladesh. With regard to gender, 64.4 per cent of the respondents were male and 35.6 per cent of the respondents were female. In terms of the access to technology, 85.7 per cent had access to computer and 86.3 per cent had access to fixed broadband internet connection. Among the respondents, 43.8 per cent had studied at school in Dhaka, and 88.3 percent followed the national curriculum in their schools. Graduates from a total of 38 different universities in Bangladesh participated in the survey. Among these 38 universities, 57.5 per cent were located in Dhaka, and 78.1 per cent were public universities.

The principles of voluntary participation and informed consent were followed whilst conducting the aforementioned surveys. Moreover, all of the respondents were fully informed about the procedures involved in the research and were asked to explicitly give their consent to participate. The identities of the participants of this study were kept anonymous and the information obtained from them were used for research purposes only.



CHAPTER

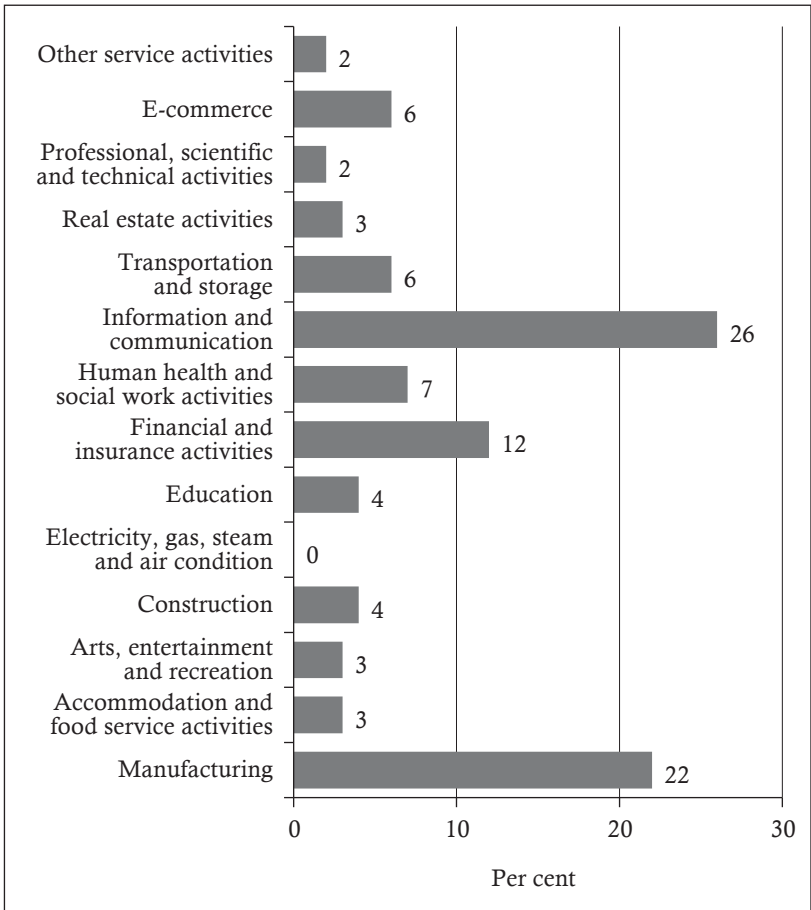


# FINDINGS FROM THE SURVEY ON EMPLOYERS

In order to analyse the existing skills gap among the youth in labour market, an online survey was conducted in November 2021 where responses were collected from 100 major non-government employers from different sectors of the economy to understand which skills they were looking for in potential employees. The survey respondents included HR managers, managers, executive directors, and high officials from the respective organisations who were involved in the recruitment process. Figure 1 shows that the highest percentage of respondents in the survey of employers belonged to the manufacturing and information and communication sectors.

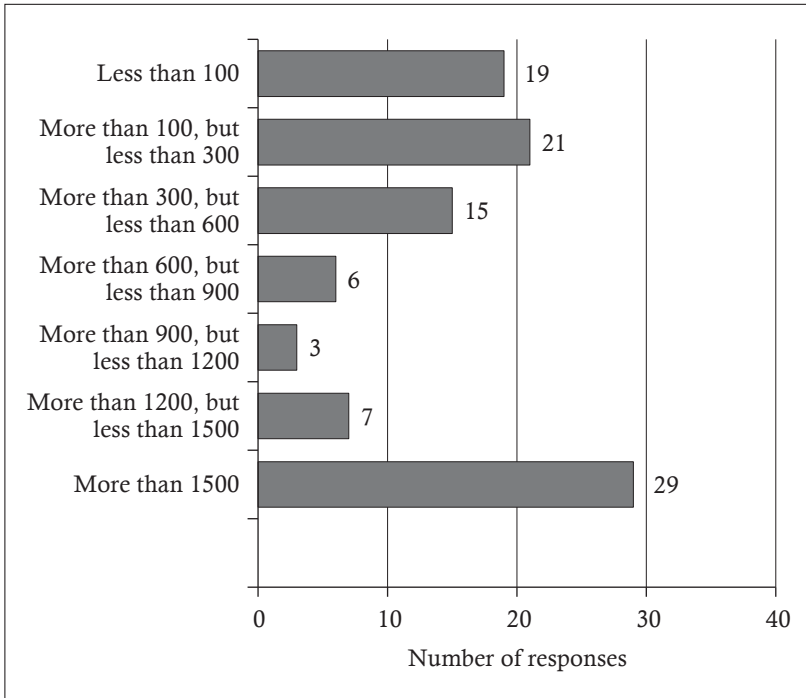
In Figure 2, the distribution of the number of employees is illustrated. When asked about the total number of employees the companies currently have, 29 employers responded that they have more than 1500 employees, while 19 employers responded that they have less than 100 employees. Finally, 21 employers said that they have between 300 and 600 employees.

Figure 3 shows the constraints that the employers believe may prevent their employees from producing the best output. Each employer was allowed to select more than one response to this question. The four major constraints were: i) lack of motivation; ii) insufficient training; iii) lack of skills; and iv) inability to use new technology. Lack of skills was mentioned by 38 employers as one of the constraints that prevent their employees from producing the best output. This indicates that lack of skills may be one of the major constraints among employees in the labour market.

**Figure 1: Broad Sector of Industry**

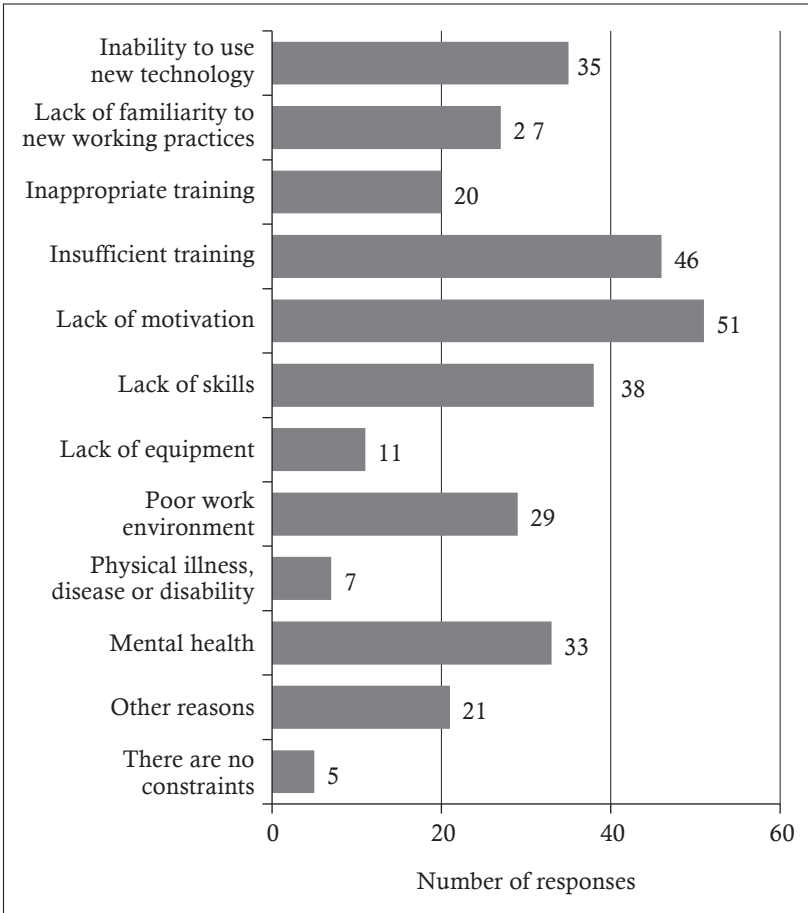
**Source:** Authors' illustration based on the survey conducted by CPD.

**Figure 2: Current Number of Employees in the Respondent's Company**



**Source:** Authors' illustration based on the survey conducted by CPD.

**Figure 3: Constraints That May Prevent Employees From Producing the Best Output**



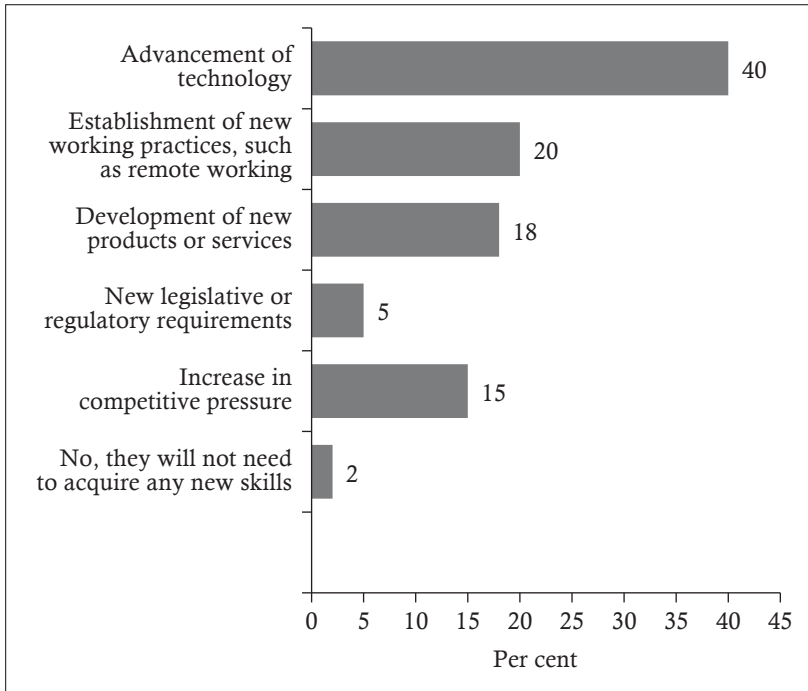
**Source:** Authors' illustration based on the survey conducted by CPD.

The economy of Bangladesh is undergoing structural change due to a shift in output and employment from the agricultural sector to the industrial sector and then to the service sector. It was found that 40 per cent of the employers responded that, due to an advancement in technology, their employees may need to acquire new skills over the next 12 months.



Meanwhile, 20 per cent employers expected that the establishment of new working practices, such as remote working will result in a need for new skills while 18 per cent employers expected that the development of new products or services will result in a need for new skills (Figure 4).

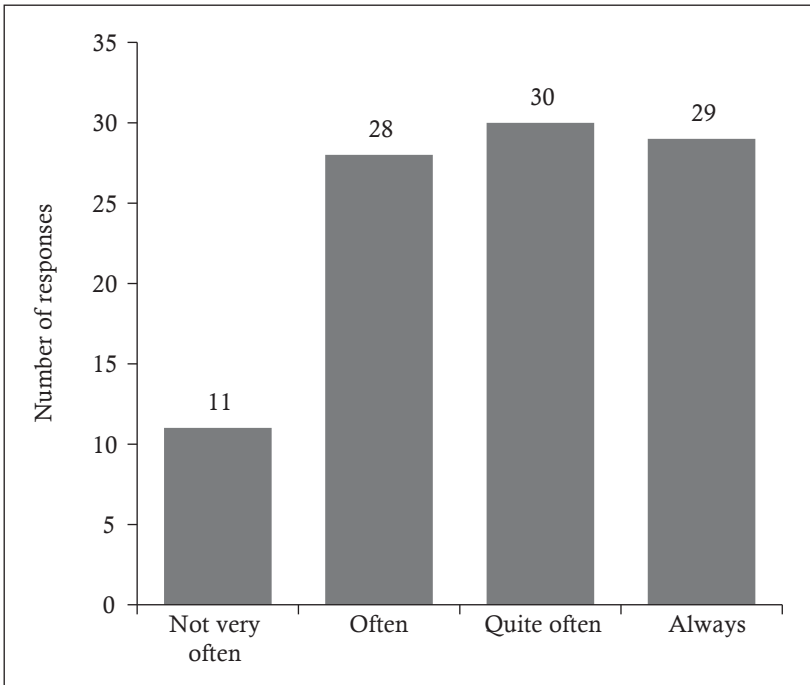
**Figure 4: Structural Change Which Will Cause a Need to Acquire New Skills Over the Next 12 Months**



**Source:** Authors' illustration based on the survey conducted by CPD.

In the survey, the employers were asked how often does their company hire individuals with occupation-specific skills. It was found that 29 per cent employers always hired individuals with occupation-specific skills, whereas 30 per cent employers quite often hired individuals with occupation-specific skills. Only 11 per cent employers did not hire individuals with occupation-specific skills very often (Figure 5).

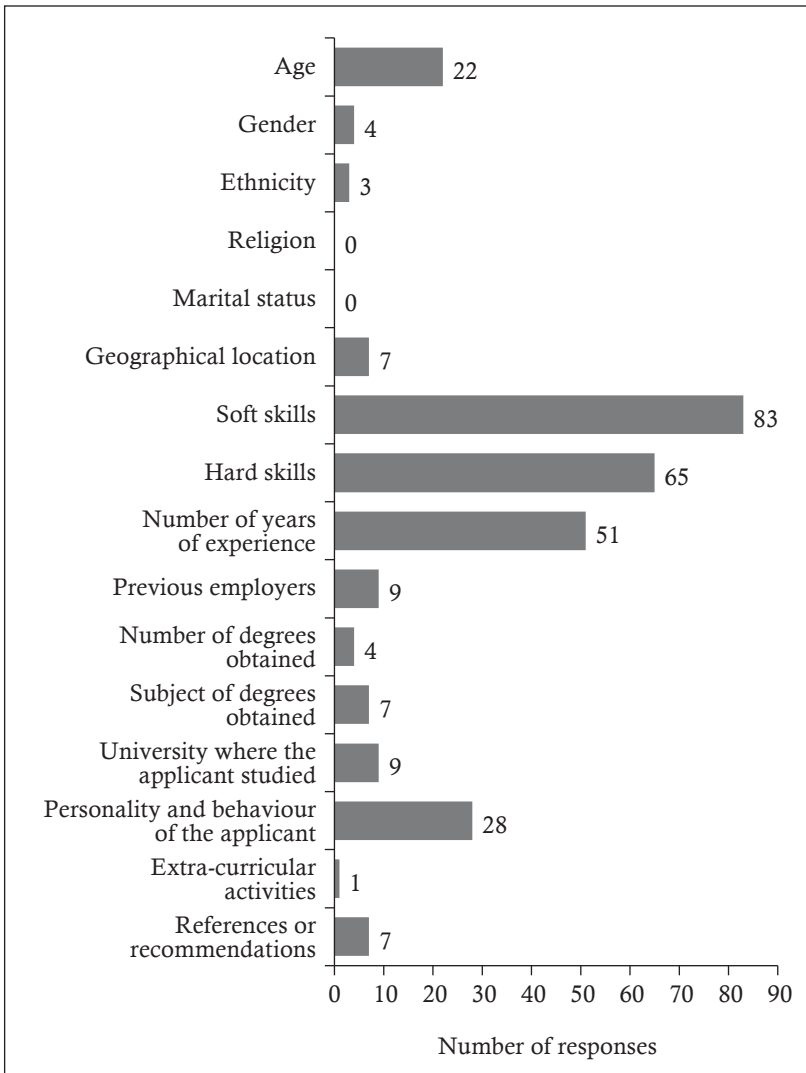
**Figure 5: Companies Hire Employees with Occupation-Specific Skills**



**Source:** Authors' illustration based on the survey conducted by CPD.

The three most important factors that employers consider while making a hiring decision were found to be soft skills, hard skills, and number of years of experience (Figure 6). In the survey, 83 employers selected soft skills, 65 employers selected hard skills and 51 employers selected number of

**Figure 6: The Three Most Important Factors Considered While Making a Hiring Decision**

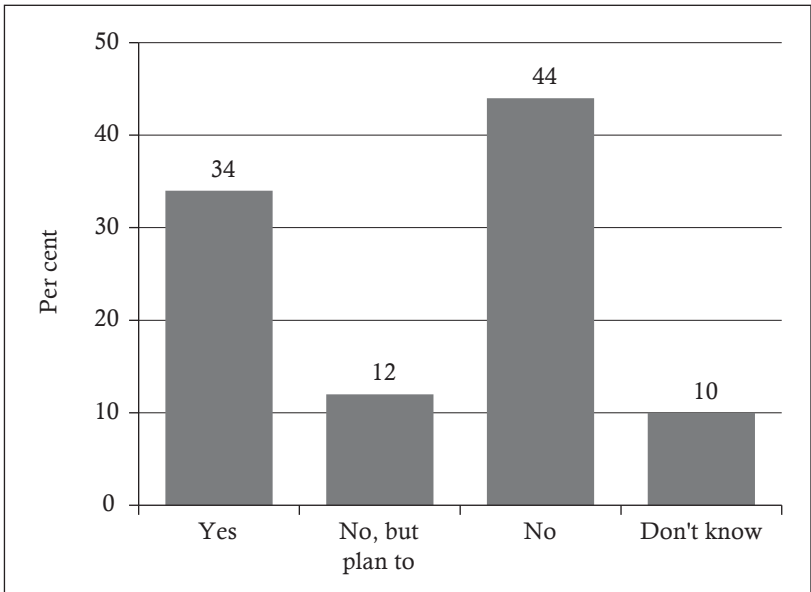


**Source:** Authors' illustration based on the survey conducted by CPD.

years of experience as important factors that are considered when making a hiring decision.

Hiring decisions are quite hard to make, and a number of factors are considered before making the right choice to hire a potential candidate. From the survey, it was found that 44 per cent of the employers never hired foreign or non-Bangladeshi national workers, while 34 per cent employers hired foreign workers because such workers had better skills compared to Bangladeshi workers. Moreover, 12 per cent employers said that they planned to hire non-Bangladeshi nationals (Figure 7). This shows that, even though some employers are hiring or planning to hire foreign nationals, most employers still preferred hiring Bangladeshi workers in their companies.

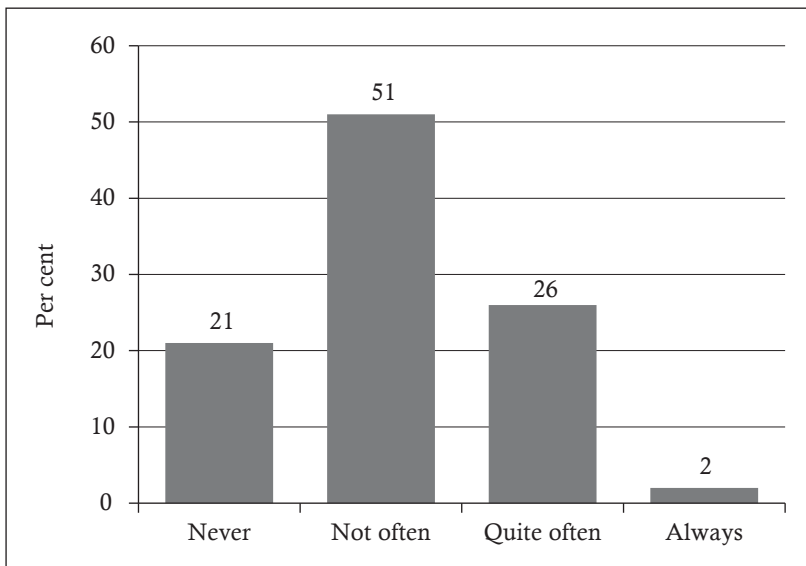
**Figure 7: Recruitment of Workers Who Are Non-Bangladeshi Nationals**



**Source:** Authors' illustration based on the survey conducted by CPD.

Figure 8 presents how often employers hired skilled foreigners because Bangladeshi applicants with such skills could not be found. Fifty-one per cent employers responded that they did not hire skilled foreigners that often, while 21 per cent employers responded that they have never hired skilled foreigners. Only 26 per cent employers said that they often hired skilled foreigners as the required skills are not found in the Bangladeshi workers.

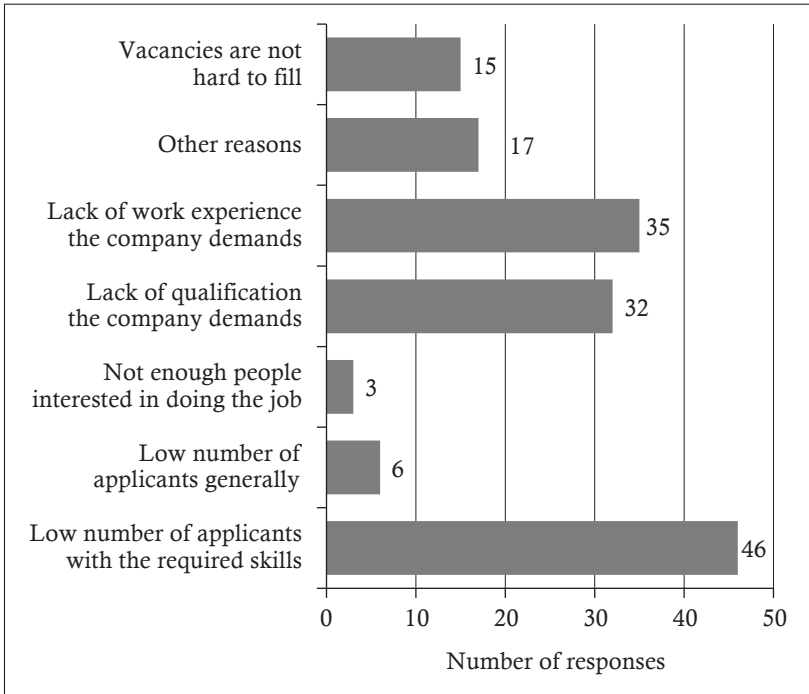
**Figure 8: Employers Hiring Skilled Foreigners Because Bangladeshi Applicants With Proper Skills Could Not Be Found**



**Source:** Authors' illustration based on the survey conducted by CPD.

From the survey, it was found that 46 employers found it hard to fill their vacancies because of the low number of applicants with the required skills. On the other hand, 35 employers found it difficult to fill their vacancies because of the lack of qualifications and 32 employers found it difficult to fill their vacancies because of their work experience demands. This shows that, among other reasons, lack of skills in the applicants was a major reason why vacancies were hard to fill (Figure 9).

**Figure 9: Reasons Behind the Difficulties in Filling Vacancies in the Companies**

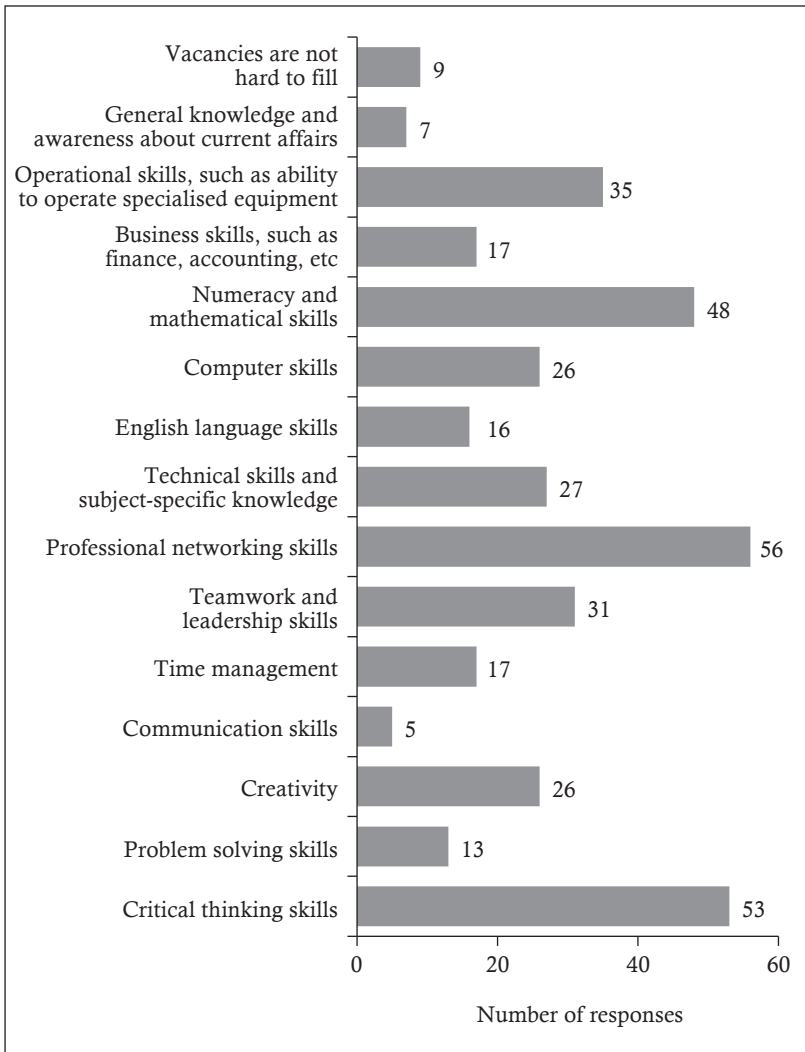


**Source:** Authors' illustration based on the survey conducted by CPD.

When asked about the skills that were lacking in most of the applicants, 56 employers mentioned professional networking skills, 53 employers mentioned critical thinking skills, and 48 employers mentioned numeracy and mathematical skills (Figure 10). Due to the lack of such skills, employers face a hard time filling out job vacancies in their companies.

Soft skills were considered to be quite important according to 41 per cent of the employers and most important according to 43 per cent of the employers who participated in the survey (Figure 11). This shows that, while hard skills were vital, it was more important for the recent graduates to have significant soft skills. It appears that this was the new paradigm adapted by the employers during the 4IR. Employers no longer looked for

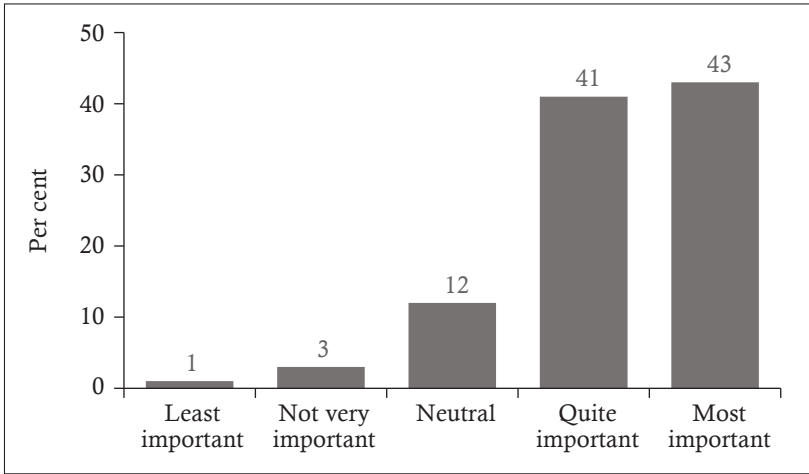
**Figure 10: Most Important Skills Lacking in the Applicants Which Makes It Hard to Fill Vacancies in Companies**



**Source:** Authors' illustration based on the survey conducted by CPD.

occupation-specific technical and practical skills only, but also looked for personal knowledge and behavioural skills.

**Figure 11: Importance of Soft Skills Over Hard Skills According to Employers**



**Source:** Authors' illustration based on the survey conducted by CPD.

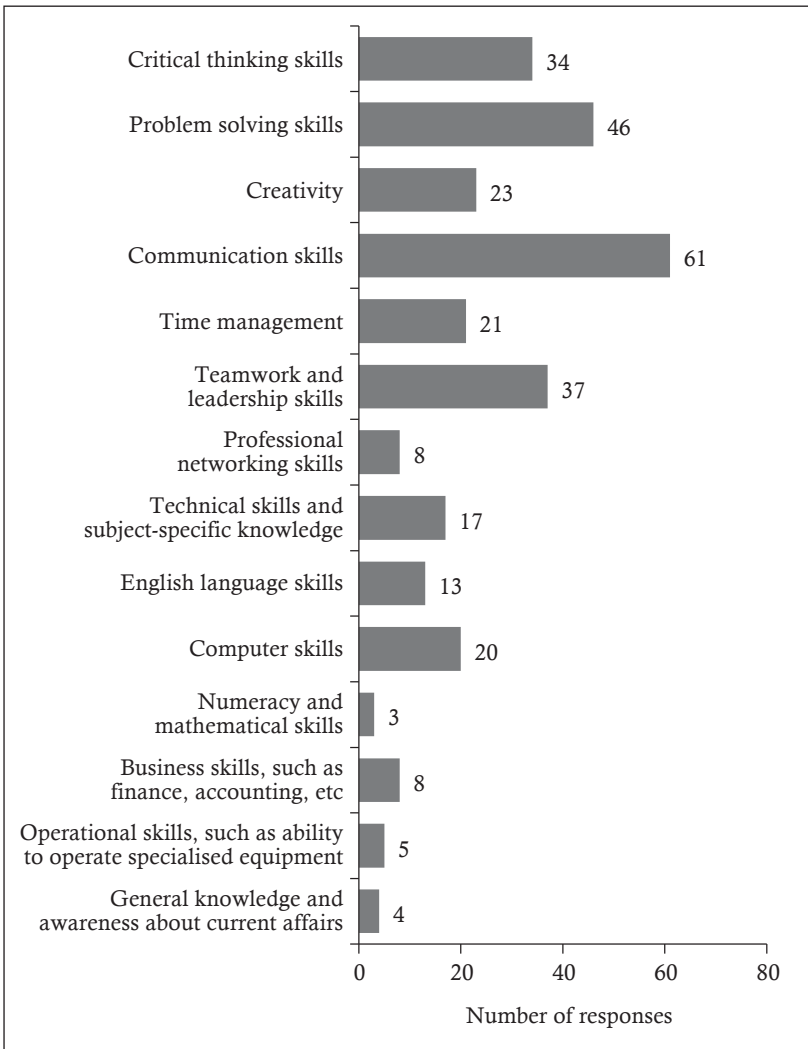
The survey findings show that 61 employers mentioned communication skills as one of the most important skills which they expect from graduates. Problem-solving skills and critical thinking skills were also deemed quite important according to many of the employers. Other soft skills such as creativity, time management, teamwork and leadership were also highly important for the recent graduates to possess according to employers (Figure 12). Among the hard skills, 20 employers said that computer skills were important while 17 employers said that technical skills and subject-specific knowledge were important skills which they expected from graduates (Figure 12).

The survey findings show that 93 employers considered communication skills as the most important skill, while 91 employers chose time management and 88 employers chose problem-solving skills as the most important skills (Figure 13).

Among the hard skills, 85 employers ranked computer skills and 81 employers chose technical skills as the most important hard skills (Figure 14). Other hard skills such as general knowledge, business skills,



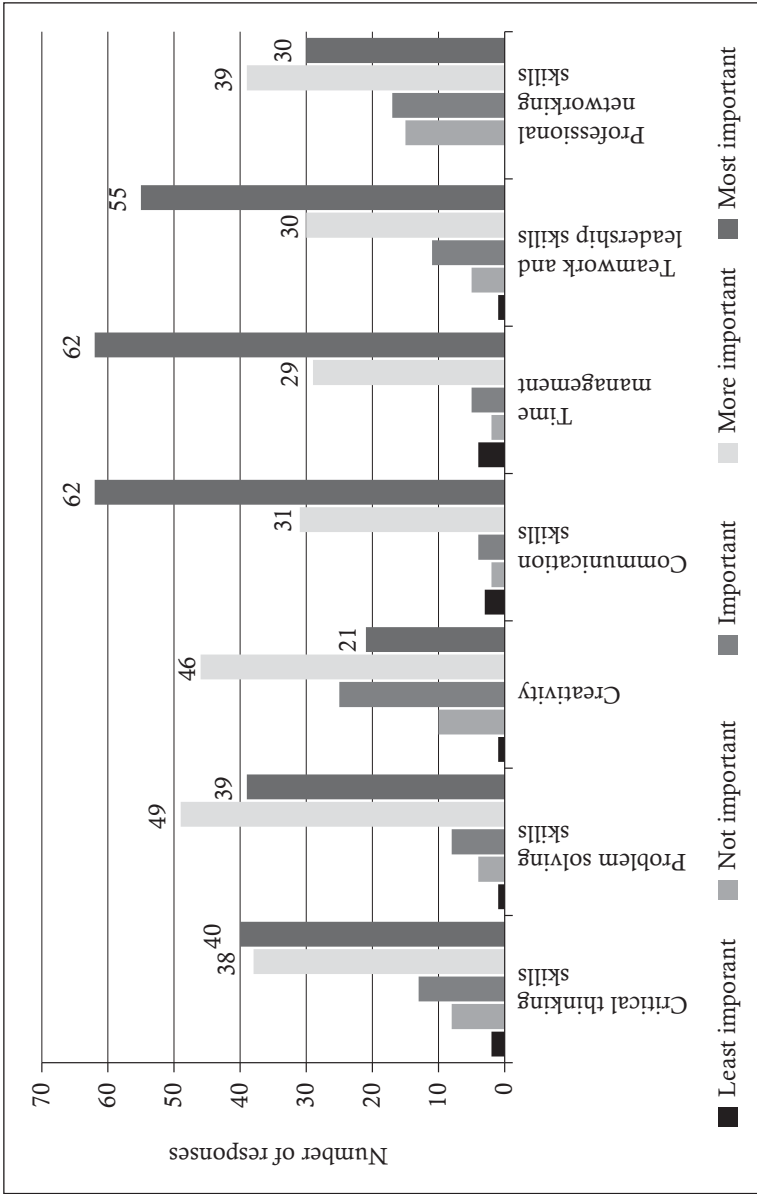
**Figure 12: Most Important Skills That Employers Expect From the Graduates**



**Source:** Authors' illustration based on the survey conducted by CPD.

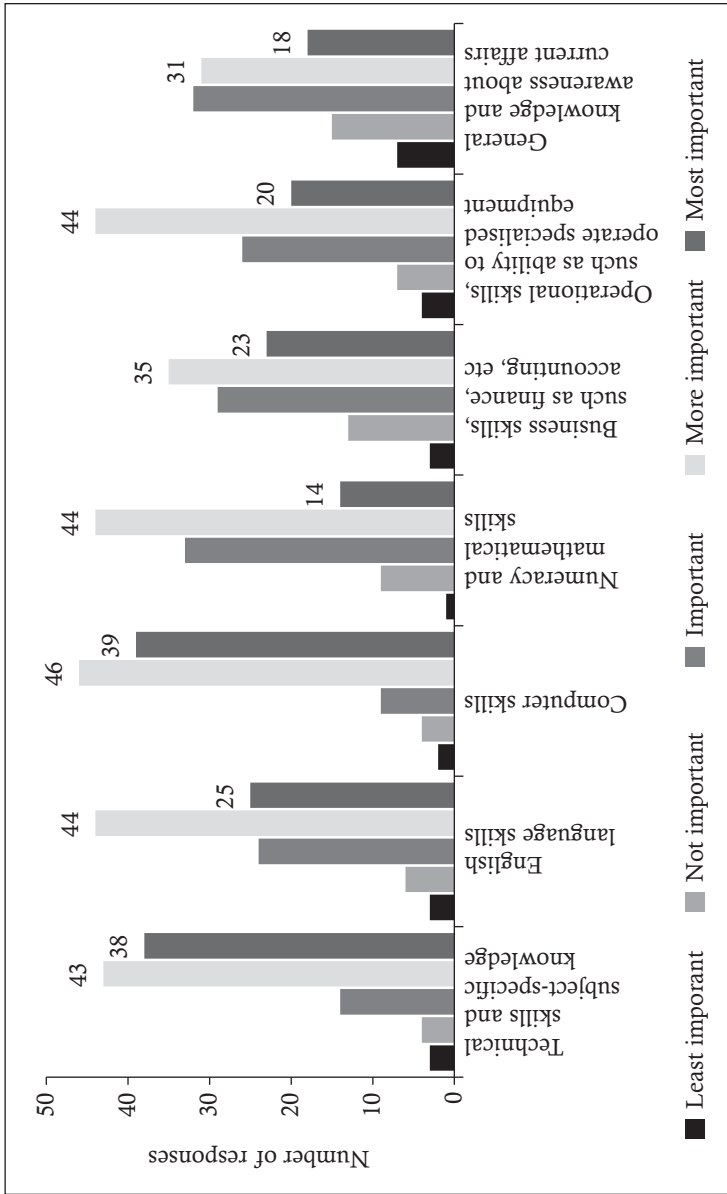
and numeracy skills were relatively less important skills, according to the employers.

Figure 13: Soft Skills Considered the Most Important by Employers



Source: Authors' illustration based on the survey conducted by CPD.

Figure 14: Hard Skills Considered the Most Important by Employers



Source: Authors' illustration based on the survey conducted by CPD.

CHAPTER

7

# FINDINGS FROM THE SURVEY ON STUDENTS

In order to evaluate the proficiency of youth in various skills, an online skills assessment was conducted. This online skills assessment consisted of 100 questions which tested six soft skills and four hard skills of the young participants. Table 2 shows the detailed breakdown of the online skills assessment.

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; and vi) did not participate in Bangladesh Labour Force Survey 2016–17.

Data of the scores of the online skills assessment were analysed using a number of statistical techniques. It was assumed that if there was no skills gap, then skills assessment scores would be normally distributed since some individuals would have low level of skills, some individuals would have high level of skills, but most individuals would have a moderate level of skills. Results from the tests of normality show that the scores of the online skills assessment were not normally distributed (Table 3). This indicates that there may be a skills gap among the university students and recent graduates who were assessed.

Based on the ranking of the skills preference of the employers, an employability index was calculated. Each skill score was assigned a weight which was proportional to the skill preference ranking of the employers. Highly preferred skills were assigned a high weight, whereas less preferred skills were assigned a low weight. Due to this weighting, high scores in

Table 2: Details of the Online Skills Assessment

Sl No	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
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

(Table 2 contd.)

(Table 2 contd.)

SI No	Name of the Section	Skill Tested	Soft Skill	Hard Skill	Number of Questions	Type of Questions
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

**Source:** Authors' compilation based on survey conducted as part of this study.

**Note:** Communication skills include verbal skills and non-verbal skills. Verbal skills consist mainly of written and spoken skills. On the other hand, non-verbal skills are categorised into three categories: i) physical category, which encompasses attire, gesture, touch, body language and facial expressions; ii) social category which refers to the speaker's relationship with other, personal space of each individual, and the status of these involved; iii) environmental category which includes territorial connections, use of time and physical arrangement of the room (Garner & Ackten, 1980). Verbal skills are manifested through the use of language. For the purpose of this study, only verbal skills manifested through English language could be tested since no standardised tests for assessing verbal skills manifested through Bangla was available at the time of writing. In addition, due to the lack of time, resources and specialised equipment, non-verbal communication skills could not be measured.

Table 3: Results from tests of normality

Variable	Skewness-Kurtosis Test	Shapiro-Wilk Test	Shapiro-Francia Test	D'Agostino & Pearson Test	Jarque-Bera Test
Communication and English skills score	9.78 (0.0075)	0.98064 (0.00003)	0.98562 (0.00085)	10.6691 (0.0048)	11.1064 (0.0039)
Time management skills score	40.94 (0.0000)	0.96315 (0.00000)	0.96753 (0.00001)	51.9159 (0.0000)	24.8831 (0.0000)
Problem solving skills score	9.32 (0.0095)	0.98744 (0.00158)	0.98914 (0.00571)	10.0884 (0.0064)	10.2264 (0.0060)
Teamwork and leadership skills score	22.27 (0.0000)	0.96325 (0.00000)	0.96402 (0.00001)	26.8696 (0.0000)	30.9630 (0.0000)
Critical thinking skills score	50.31 (0.0000)	0.98959 (0.00613)	0.99048 (0.01240)	64.6417 (0.0000)	15.4516 (0.0004)
Creativity score	57.78 (0.0000)	0.95023 (0.00000)	0.94947 (0.00001)	74.8445 (0.0000)	142.5277 (0.0000)
Computer literacy score	14.29 (0.0008)	0.98721 (0.00138)	0.99331 (0.06912)	16.4114 (0.0003)	8.5103 (0.0142)
Business skills score	30.81 (0.0000)	0.99051 (0.01112)	0.99461 (0.15490)	38.2509 (0.0000)	13.7504 (0.0010)

(Table 3 contd.)



(Table 3 contd.)

Variable	Skewness- Kurtosis Test	Shapiro-Wilk Test	Shapiro-Francia Test	D'Agostino & Pearson Test	Jarque-Bera Test
Numeracy and mathematical skills score	18.77 (0.0001)	0.97932 (0.00002)	0.99269 (0.04698)	22.2475 (0.0000)	24.3645 (0.0000)
Employability index	9.67 (0.0079)	0.98189 (0.00007)	0.98242 (0.00018)	10.5295 (0.0052)	10.7532 (0.0046)

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

**Note:** i) Null hypothesis is that the distribution is normal; ii) Each cell contains the value of the test statistic, followed by the associated probability values in parentheses.

highly preferred skills would increase employability more than high scores in less preferred skills. The weights were also selected in such a way that the value of employability index ranged from 0 to 100, with zero indicating the lowest employability and 100 indicating the highest employability (Table 4).

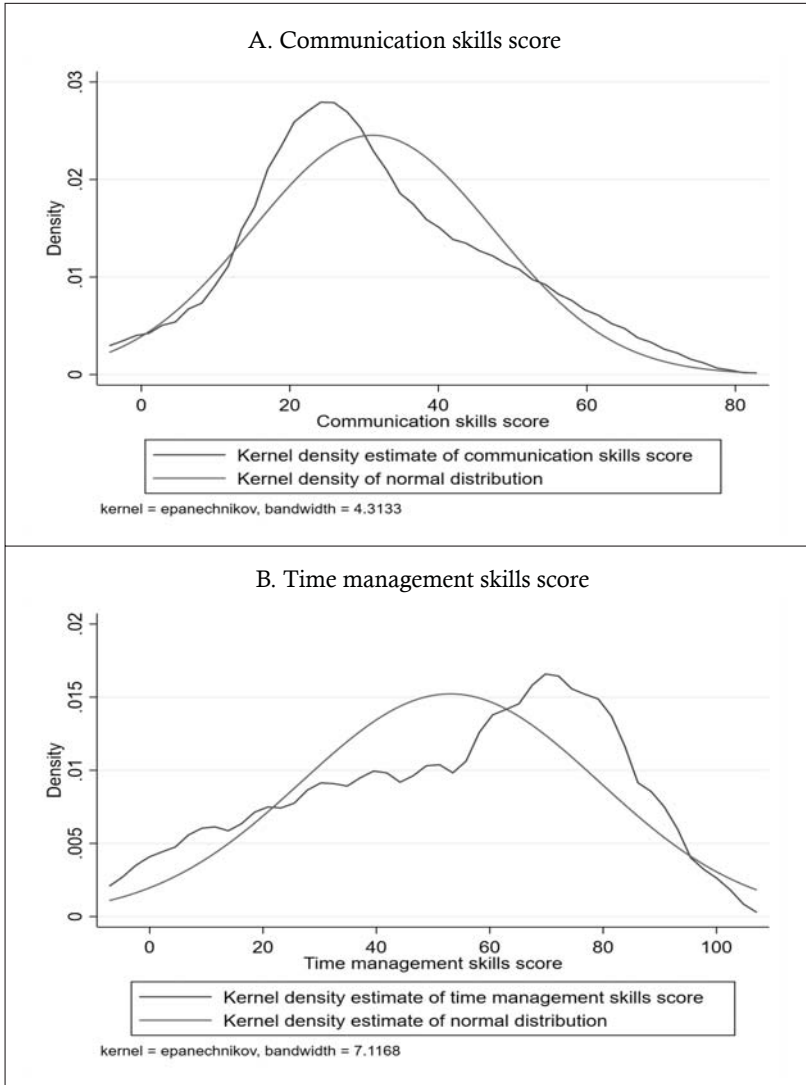
**Table 4: Employability Index**

Skills	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' compilation based on survey data collected as part of the study.

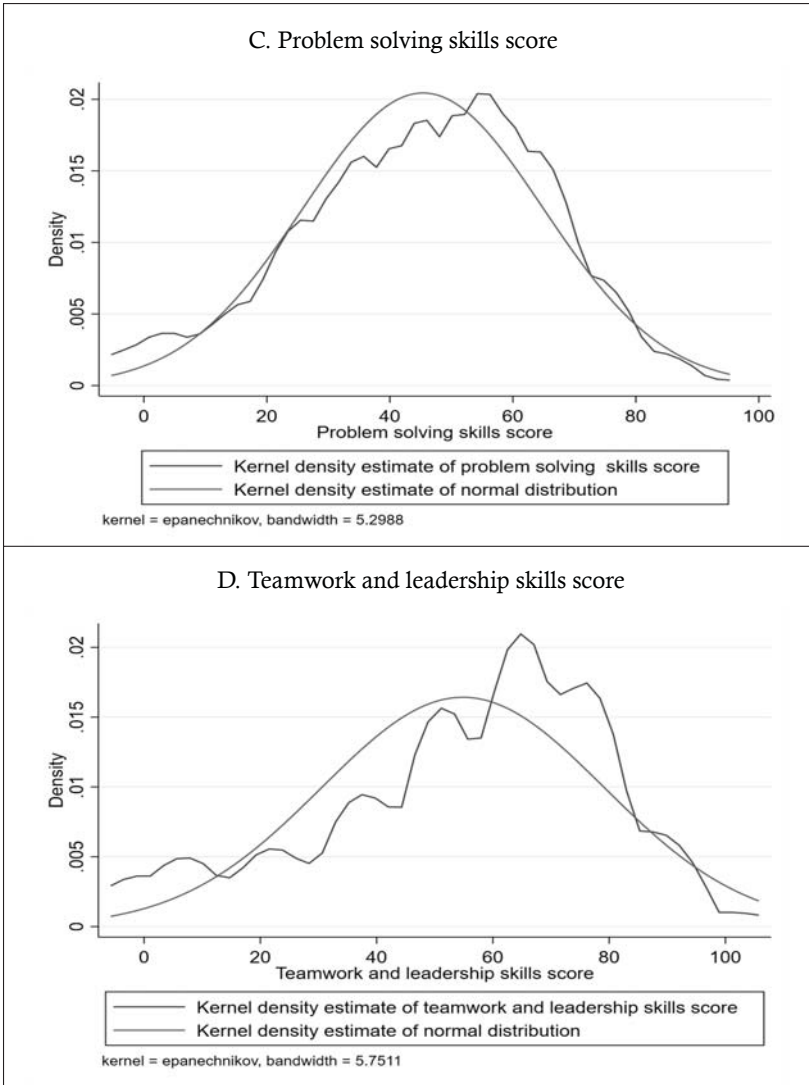
In order to further understand the nature of the skills assessment scores, kernel density plots of the scores of each skill were generated and juxtaposed with the kernel density plots of a normal distribution (Figure 15).

**Figure 15: Kernel Density Plots of Skills Assessment Scores**



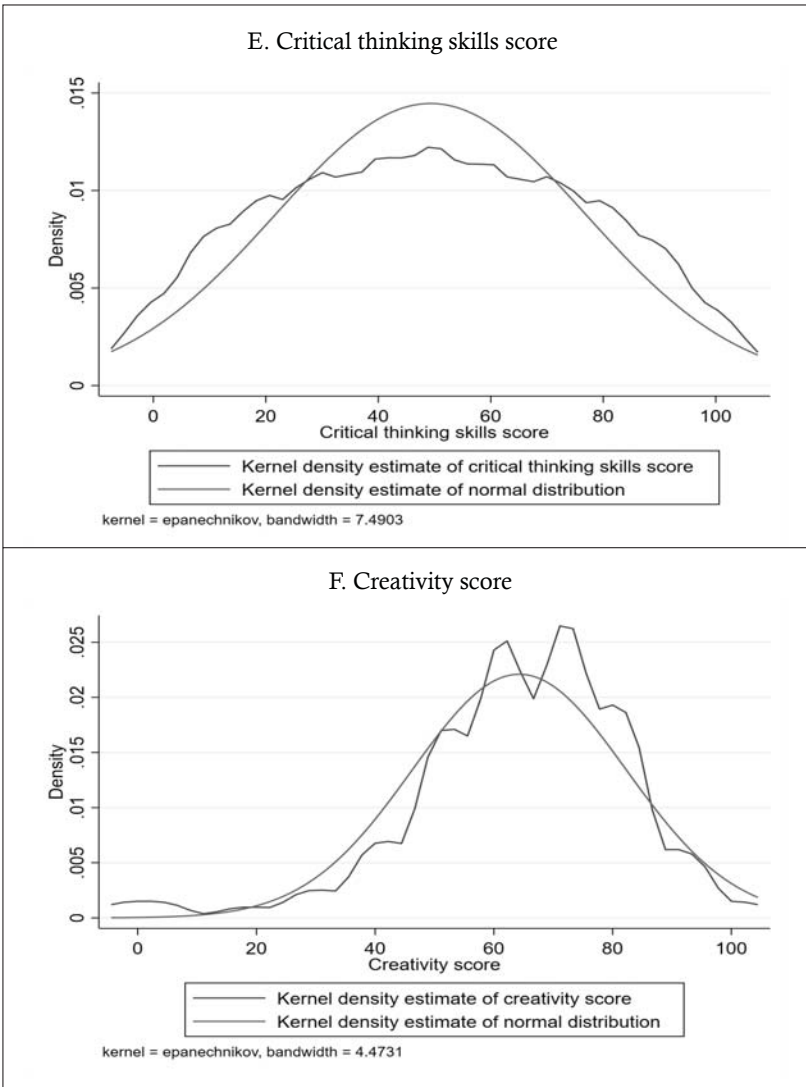
(Figure 15 contd.)

(Figure 15 contd.)



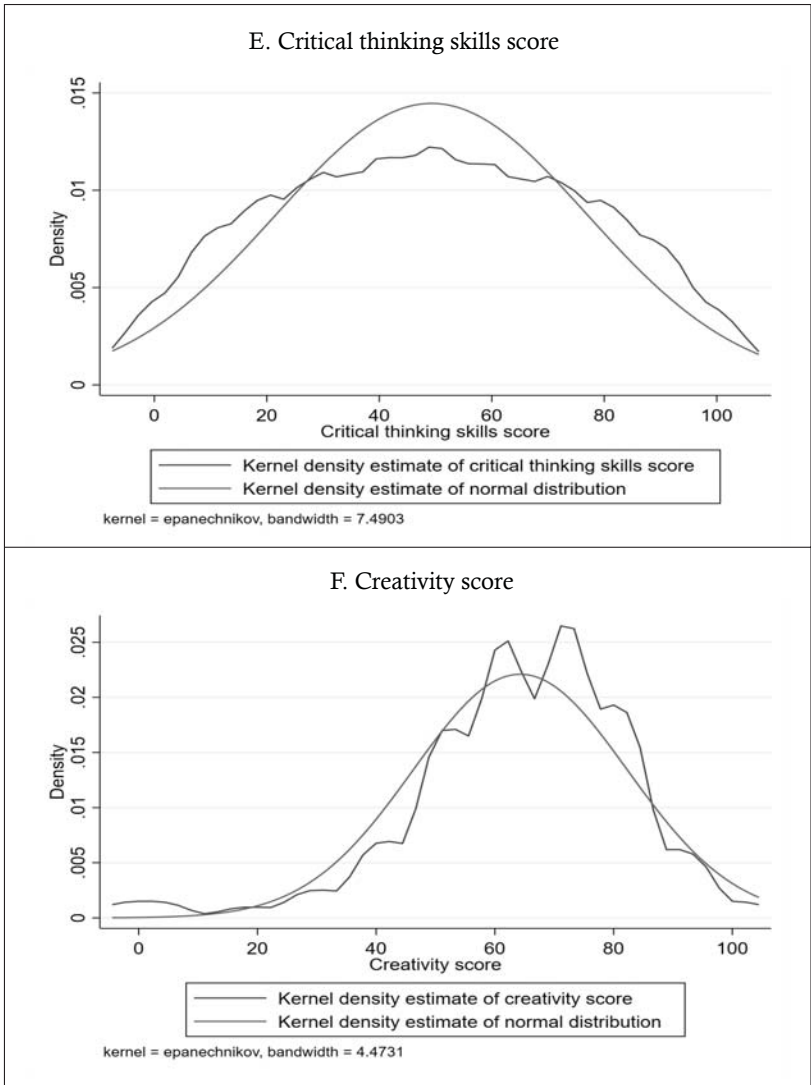
(Figure 15 contd.)

(Figure 15 contd.)



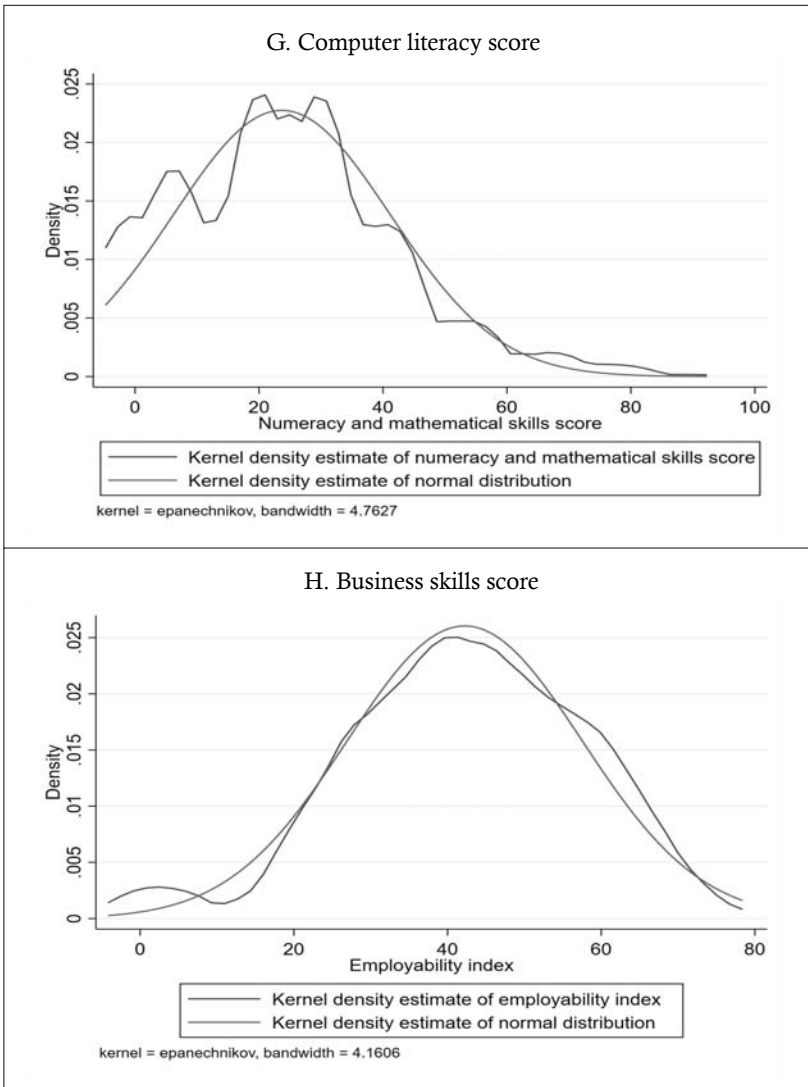
(Figure 15 contd.)

(Figure 15 contd.)



(Figure 15 contd.)

(Figure 15 contd.)

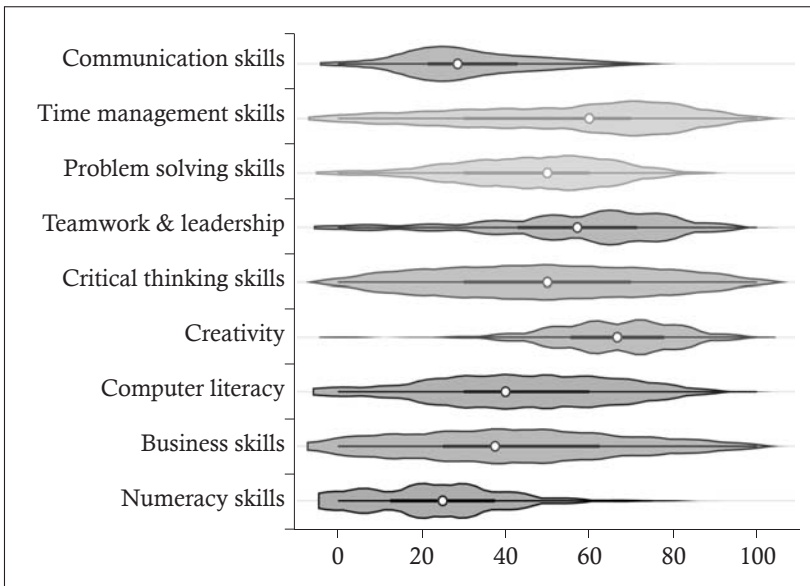


Source: Authors' illustration based on the survey data collected as part of the study.

From the kernel density plots, it can be seen that there were high densities of low scores in communication skills, and numeracy and mathematical skills. On the other hand, the kernel density plots also show that there were high densities of high scores in creativity, teamwork and leadership, and time management. This is further confirmed from violin plots of the scores of 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 (Figure 16). Interestingly, the kernel density plot of the employability index is surprisingly close to the kernel density plot of the normal distribution.

In order to evaluate whether there was any gap in the skills demanded by the employers and the skills possessed by the university students and graduates, a ranking of the skills performance of university students and

**Figure 16: Violin Plot of Skills Assessment Scores**



**Source:** Authors' illustration based on the survey data collected as part of the study.



graduates was developed, based on the average scores obtained by the university students and graduates in each skill that was tested through the online assessment. The skills gap was calculated by subtracting the skill performance ranking of the university students and graduates from the skill preference ranking of the employers (Table 5). Negative values of the skills gap indicate that the skill performance ranking of the university students and recent graduates was lower than the skill preference ranking of the employers. On the other hand, positive values of the skills gap indicate that the skill performance ranking of university students and recent graduates was higher than the skill preference ranking of the employers. And finally, a skills gap value of zero indicates that the skill performance ranking of the university students and recent graduates was equal to the skill preference ranking of the employers (Table 5).

**Table 5: Skill Preference 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	31	1	8	-7
Time management skills	53	2	3	-1
Problem solving skills	45	3	5	-2
Teamwork and leadership skills	55	4	2	2
Critical thinking skills	49	5	4	1
Creativity	64	6	1	5
Computer literacy	44	7	6	1

(Table 5 contd.)

(Table 5 contd.)

Skill	Average Values	Ranking		Skills Gap (Preference – Performance)
		Skill Preference of Employers	Skill Performance of University Students and Graduates	
Business skills	43	8	7	1
Numeracy and mathematical skills	24	9	9	0

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

Based on the calculations, it was found that the greatest skill gap existed in communication and English skills, since the skill preference ranking of the employers for this skill was the highest, but the skill performance ranking of the university students and recent graduates for this skill was the second lowest. Gaps were also uncovered in time management skills and problem-solving skills. It is important to note that gaps were observed in the top three most highly preferred skills by the employers. However, skill surpluses were observed in teamwork and leadership skills, critical thinking skills, creativity, computer literacy, and business skills, since the skills performance ranking of the university students and recent graduates for these skills was higher than the skills preference ranking of the employers. In case of numeracy and mathematical skills, it was observed that there was neither any skills gap nor any skills surplus, as the skills performance ranking of the university students and recent graduates was equal to skills preference ranking of the employers.



CHAPTER 

# CONCLUSION

**M**odern labour markets throughout the world have grown more competitive than ever before as a result of the 4IR. Employers increasingly expect individuals to have a diverse set of talents to supplement their schooling. The goal of this study was to determine which skills are valuable in Bangladesh's labour market. In order to accomplish this goal, two online surveys were conducted in order to understand the skill preferences of the employers and the skill performance of university students and recent graduates.

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. In terms of the hard skills, most employers placed the highest importance on subject-specific technical knowledge, computer literacy, and English language skills.

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. 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.

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, a clear causal relationship between skills gap and youth employment cannot be ascertained and a general conclusion cannot be established since the samples used in the surveys were not collected

randomly. Given the time and resource constraints, the surveys were conducted with small samples and were not nationally representative. Since the surveys were administered online, it was not possible to determine if the employers or students answered the questions seriously, or simply went through the questionnaire for the sake of completing the survey. Moreover, 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. Given the exploratory nature of this study, these limitations were anticipated. Nevertheless, this study provides a useful starting point for further and more rigorous research on this topic.



CHAPTER



# RECOMMENDATIONS



In light of the findings of this study, a number of recommendations are put forward for policymakers. These recommendations have been divided into four groups, based on the role of each relevant stakeholder in reducing the skills gap in the labour market of Bangladesh.

### **Role of government**

In order to provide improved learning opportunities, the government should invest in education and training for the youth. It should collaborate with the private-sector and should invest in improving the public-sector educational institutes so that a greater number of students from low-income households may acquire quality education. The government should include skill-based curricula and place more importance on practical and real-life situations in the syllabus rather than theoretical scenarios. The government should also re-design skill development curriculum, such as technical and vocational education (TVET), based on the market demand.

### **Role of educational institutions**

A comprehensive reform of the education system is required for the students to develop soft skills along with hard skills. To promote learning, course content must be revised on a regular basis. Educational institutes should address the gap between recruiters' demand and/or expectation from the graduates, and the skills that the graduates actually possess. Educational institutions should align their curriculum with market demands, ensuring that students are more equipped for the job market. Short courses on diverse skills, including soft skills, must be organised to boost the job market relevance of education. University teachers should encourage and motivate students to participate in discussions during the class lecture, in order to improve their communication skills. All educational institutes

should have career counsellors who will help students identify their strengths, prepare curriculum vitae (CV) and job applications, and engage in entrepreneurship from an early age. Students should also be encouraged by the educational institutions to take part-time jobs and training programmes. Moreover, both public and private universities should make internships mandatory for students for all degrees to graduate. This will reduce their school-to-work transition and provide them an exposure to the job-world. When it comes to making the transition from university to job, the youth should be educated on all the options accessible in the market. Furthermore, collaboration between industry and academia could help reduce the school-to-work transition. Job fairs can also be organised 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 prioritised. Computer and internet connectivity should be expanded, particularly in rural regions. 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.

## **Role of employers**

Companies can arrange trainee programmes for the graduates to make them ready for work. They also need to create a positive work environment for all, especially women, and encourage innovation among the employees. Active learning can be stimulated by arranging trainings, seminars, and workshops for the young graduates and employees. This will help improve soft skills like communication skills, networking skills and leadership skills. Technical and vocational training can be provided by the employers to upskill young individuals. Many big tech companies such as Google, Facebook, and Amazon now offer short online training courses which are specifically tailored to the needs of their own companies. Prospective job applicants may take such short online training courses,

improve their skills and increase their chances of finding employment. In the same light, companies from beyond the tech industry should also follow suit and introduce tailor-made short online training courses for young job seekers. Existing TVET curricula and study materials should be re-designed on a yearly basis. Training materials must be updated to reflect the current state of the industry and highly-skilled trainers should be recruited to provide training related to that specific field of work. Moreover, employers may collaborate with training institutions to encourage youth NEET to participate in skill-development programmes. Skills development programmes should be updated to mirror the fast-paced nature of technological progress. Training for the informal sector needs to be strengthened as well.

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. Moreover, 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.

### **Role of the university students and recent graduates**

Students should take personal initiatives to develop their fundamental writing and critical analysis skills with extra-curricular activities. They can also take some online courses to improve their skills in a particular field of knowledge. To improve their English writing skills, students may practice writing in English journals, newspaper articles, or even webpages. Verbal and non-verbal communication skills can be enhanced by socialising with people from various backgrounds and even by taking part in different youth conferences and training programmes. They may also undertake short courses which provides certificates, as it expands their skills and knowledge and also adds value to their CV. Being focused and working towards a particular passion may help young job seekers get their desired job. Moreover, from an early age, young people should be exposed to new business concepts and taught the skills necessary to establish and manage

a firm. In this regard, schools should not propagate social stereotypes about academic disciplines, and should encourage good students to study commerce and business subjects. Besides, aspiring young entrepreneurs should be given financial assistance through access to financing from financial institutions and government incentives.



## REFERENCES

- Aken, A., & Michalisin, M. (2007). "The Impact of the Skills Gap on the Recruitment of MIS Graduates." In *SIGMIS CPR 2007: Proceedings of the 2007 ACM SIGMIS CPR Conference*. New York: Association for Computing Machinery. DOI:10.1145/1235000.1235025
- Asadullah, M. N. (2006). Returns to education in Bangladesh. *Education Economics*, 14(4), pp 453-468. DOI: <https://doi.org/10.1080/09645290600854144>
- Asian Development Bank. (2021). *Learning and Earning Losses From COVID-19 School Closures in Developing Asia*. Manila: Asian Development Bank. Retrieved from <http://hdl.handle.net/11540/13607>
- Balcar, J. (2016). Is it better to invest in hard or soft skills? *The Economic and Labour Relations*, 27(4), pp 453-470. DOI: <https://doi.org/10.1177%2F1035304616674613>
- BANBEIS. (2017). *Bangladesh Education Statistics 2016*. Dhaka: Bangladesh Bureau of Educational Information and Statistics (BANBEIS).
- BBS and UNICEF Bangladesh. (2019). *Progotir Pathey: Bangladesh Multiple Indicator Cluster Survey 2019*. Survey Findings Report. Dhaka: Bangladesh Bureau of Statistics (BBS).
- BBS. (2015). *Report on Labour Force Survey (LFS) Bangladesh 2013*. Dhaka: Bangladesh Bureau of Statistics (BBS).
- BBS. (2018). *Bangladesh Labour Force Survey 2016-2017*. Dhaka: Bangladesh Bureau of Statistics (BBS).
- Bisht, N., & Pattanaik, F. (2020). "Youth Labour Market in India: Education, Employment, and Sustainable Development Goals." In *International Perspectives on the Youth Labor Market: Emerging Research and Opportunities*. Hershey: IGI Global. DOI: 10.4018/978-1-7998-2779-5
- Ehrenberg, R. G., & Smith, R. (2015). *Modern Labor Economics: Theory and Public Policy* (11 ed.). New York: Pearson Education, Inc.
- Farooqui, S. (2007). Developing speaking skills of adult learners in private universities in Bangladesh: Problems and solutions. *Australian Journal of Adult Learning*, 47(1), pp 94-110.

## References

- Garner, A., & Acklen, L. M. (1980). Non verbal communication: What, why, and how. *Middle School Journal*, 11(2), pp 6-7. DOI: <https://doi.org/10.1080/00940771.1980.11495529>
- GED. (2019). Study on Employment, Productivity and Sectoral Investment in Bangladesh. Dhaka: General Economics Division (GED).
- GoB. (2010). *National Education Policy 2010*. Dhaka: Ministry of Education, Government of the People's Republic of Bangladesh.
- ILO. (2016). SWTS Country Brief 2016: Bangladesh. Retrieved from [https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/documents/publication/wcms\\_537748.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_537748.pdf)
- ILO. (2020a). COVID-19 disrupts education of over 70 per cent of youth. Retrieved from [https://www.ilo.org/dhaka/Informationresources/Publicinformation/Pressreleases/WCMS\\_753499/lang--en/index.htm](https://www.ilo.org/dhaka/Informationresources/Publicinformation/Pressreleases/WCMS_753499/lang--en/index.htm)
- ILO. (2020b). ILO Bangladesh celebrates World Youth Skills Day 2020. Retrieved from [https://www.ilo.org/dhaka/Informationresources/Publicinformation/Pressreleases/WCMS\\_751962/lang--en/index.htm](https://www.ilo.org/dhaka/Informationresources/Publicinformation/Pressreleases/WCMS_751962/lang--en/index.htm)
- Jackman, R. (2018). "Pissarides, Christopher (Born 1948)." In P. Macmillian, J. Eatwell, M. Milgate, & P. Newman (Eds.), *The New Palgrave: A Dictionary of Economics*, (pp. 10316-10321). London: Palgrave Macmillan. DOI: <https://doi.org/10.1057/978-1-349-95121-5>
- Khatun, F., & Saadat, S. Y. (2020). *Youth Employment in Bangladesh: Creating Opportunities—Reaping Dividends*. Dhaka: Palgrave Macmillan. Retrieved from <https://doi.org/10.1007/978-981-15-1750-1>
- Khatun, F., & Saadat, S. (2021). Returns to computer use in Bangladesh: An econometric. *The Indian Journal of Labour Economics*, 64(1), pp 175–198. DOI:10.1007/s41027-021-00304-2
- McDonough, T. (2017). Closing the skills gap: Key learnings for employers. *Employment Relations*, 43(4), pp 49-54. DOI: <https://doi.org/10.1002/ert.21602>.
- MoPME. (2017). *Annual Primary School Census 2017*. Dhaka: Ministry of Primary and Mass Education (MoPME).

- Moscarini, G. (2018). "Matching." In S. N. Durlauf, & L. E. Blume. (Eds.), *The New Palgrave: A Dictionary of Economics* (3rd ed., pp. 4-6). London: Macmillan Publishers. Retrieved from <https://doi.org/10.1057/978-1-349-95189-5>
- Murshid, K. A., Mahmood, T., & Shashi, N. A. (2019). Employment and unemployment amongst educated youth in Bangladesh: An exploratory analysis. *Bangladesh Development Studies*, XLII(4). Retrieved from [http://bids.org.bd/uploads/publication/BDS/42/42-4/1\\_unempt\\_Murshed,%20Tanveer%20and%20Shashi%205th%20June,%2021%20TM.pdf](http://bids.org.bd/uploads/publication/BDS/42/42-4/1_unempt_Murshed,%20Tanveer%20and%20Shashi%205th%20June,%2021%20TM.pdf)
- Psacharopoulos, G., & Patrinos, H. A. (2004). Returns to investment in education: A further update. *Education Economics*, 12(2), pp 111-134.
- Rahman, M., Farooq, M. O., & Selim, M. (2021). Mitigating educated youth unemployment in Bangladesh. *Journal of Developing Areas*, 55(1), Winter, pp 185-200. DOI: doi:10.1353/jda.2021.0014
- Riley, J. G. (2018). "Signalling." In P. Macmillian, J. Eatwell, M. Milgate, & P. Newman (Eds.), *The New Palgrave Dictionary of Economics* (pp 12309-12314). London: Springer Nature.
- SEIP. (2017). *BIDS Study Report: Labour Market and Skill Gap in Bangladesh*. Dhaka: Skills for Employment Investment Program (SEIP), Finance Division, Ministry of Finance.
- Shahriar, M., Islam, K., Zayed, N., Hasan, K., & Raisa, T. (2021). The impact of COVID-19 on Bangladesh's economy: A focus on graduate employability. *Journal of Asian Finance, Economics and Business*, 8(3), pp 1395–1403. DOI:10.13106/jafeb.2021
- Solutions for Youth Employment (S4YE) and LinkedIn. (2019). *Skills Gap or Signaling Gap?* Washington D.C. and Mountain View: S4YE and LinkedIn. Retrieved from [https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/download/Skills\\_Gap\\_or\\_Signalling\\_Gap.pdf](https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/download/Skills_Gap_or_Signalling_Gap.pdf)
- Sopa, A., Asbari, M., Purwanto, A., Santoso4, P. B., Mustofa, Hutagalung, D., . . . Primahendra, R. (2020). Hard skills versus soft skills: Which are more important for. *International Journal of Control and Automation*, 13(2), pp 156-175.



## References

- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), pp 355-374. DOI: <https://doi.org/10.2307/1882010>
- Tsirkas, K., Chytiri, A. P., & Bouranta, N. (2020). The gap in soft skills perceptions: A dyadic analysis, 62(4), pp 357-377. DOI: <https://doi.org/10.1108/ET-03-2019-0060>
- UN. (2019). *Global Indicator Framework for the Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development*. New York: United Nations (UN).
- UNICEF Bangladesh. (2020). *Bangladesh Education Fact Sheets 2020: Analysis for Learning and Equity using Bangladesh MICS*. Dhaka: UNICEF Bangladesh.
- World Bank. (2013). *Bangladesh Education Sector Review*. Dhaka: The World Bank Office. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/17853/862370WP0ESR0F00Box385168B00PUBLIC0.pdf?sequence=1&isAllowed=y>
- World Economic Forum. (2017). *The Global Competitiveness Report 2017–2018*. Geneva: World Economic Forum. Retrieved from <https://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf>
- World Economic Forum. (2019). *The Global Competitiveness Report 2019*. Retrieved from <https://www3.weforum.org/docs/WEF-TheGlobalCompetitivenessReport2019.pdf>
- Yashiv, E. (2018). “Beveridge Curve.” In P. Macmillian, & R. H. Inglis (Eds.), *The New Palgrave Dictionary of Economics* (3rd ed., pp 923-925). London: Macmillan Publishers. Retrieved from <https://doi.org/10.1057/978-1-349-95189-5>

Which skills are the most highly demanded by the employers in Bangladesh? Are Bangladesh's university students graduating with the right skills for the modern labour market? Is there any skills gap in the labour market of Bangladesh which is affecting youth employment? These questions, inter alia, are answered in this study, and the aim is to identify the skills that have value in the labour market of Bangladesh. Two online surveys were conducted in order to understand which skills are demanded by employers and what is the level of expertise of university students and recent graduates in these skills. It is hoped that the findings of this study will be useful for allocating resources efficiently in the development of market-relevant skills for the youth of Bangladesh.

