

# Determining Skillsets for Sustainable Employability in Manufacturing Industry of Bangladesh

Tarik Raihan\*  
Salma Begum\*\*  
Habibun Nahar\*\*\*

Submission	: 22/04/2025
Revision	: 07/07/2025
Acceptance	: 12/08/2025

## **Abstract**

*From an industrial perspective, the post-COVID era has evolved, necessitating the possession of modern, technologically advanced, and intelligence-driven skills. Therefore, this study strives to develop a scale for employability skillsets that are sustainable and will aid job seekers in adjusting to their "new-normal" life following the COVID-19. A total of 51 skills are categorized under 8 skillsets. The mixed mode of data collection, such as off-line and on-line was employed in this study. The quantitative approach is employed and Excel, SPSS, and structural equation modeling (SEM) based confirmatory factor analysis is done for analyzing and proposing the scale. This study addresses that gap by conceptualizing a new scale specifically designed to assess an individual's employability within the remolded job market shaped by recent global disruptions of COVID-19. The results showed that the proposed skills explained the graduate's employability firmly. In this direction, these skills are likely to benefit both job seekers and employers in responding to their needs respectively.*

**Keywords:** Sustainable employability, Interpersonal skills, Decision-making skill, Leadership skills, Individualistic skills, Professional etiquette skills, Life-long learning skills, Analytical skills, High-tech skills.



The Chittagong University  
Journal of Business Administration  
Volume 36, 2022, pp. 144-171  
© Faculty of Business Administration  
University of Chittagong  
ISSN: 2219 - 4843

---

\* **Corresponding Author:** Assistant Professor, Department of Management, Faculty of Business Administration, University of Chittagong, Chattogram, Bangladesh. E-mail: tarikraihan@cu.ac.bd, Mobile: 01813-770007.

\*\*Lecturer, Department of Human Resource Management, Faculty of Business Administration, University of Chittagong, Chattogram, Bangladesh. E-mail: salma@cu.ac.bd, Mobile: 01814-910320.

\*\*\*Lecturer, Department of Business Administration, School of Business, Uttara University, Holding No 77, Beribadh Road, Turag, Uttara, Dhaka 1230. Email- habibun.nahar@uttarauniversity.edu.bd, Phone- 01882019269.

## **1.0 Introduction**

Organizations have faced a very atypical catastrophe after the outbreak of covid-19, and the shock is enduring and eternal across the globe. As the COVID-19 epidemic continued, the situation worsened as more people lost their jobs as a result of the economic downturn and their lack of competence and the skills needed for future employment (Alam, 2022). According to the report of the International Labor Organization as of September 20, 2020, in 2019, the total unemployment rate worldwide was 5.395%, and in 2020 it rose to 5.42%, which clearly illustrates the toll COVID-19 has taken on the lives of people across the world (ILO, 2020). In Bangladesh also the same scenario persists. Thousands of people have lost their jobs and are now searching for new ones or still struggling to enter the job market with extensive competition (Totskaya, 2021). Global Business-giants in many countries have fallen prey to bankruptcy due to stagnation of the economy and decrease in operation but an increase in cost ( Smith, J., & Rahman, M. 2024; Amankwah-Amoah, Khan, & Wood, 2021). Likewise, small businesses in Bangladesh that used to employ a substantial amount of people have also ceased their operations and, in many cases, have been shut down. With this scenario persisting worldwide, the current job market demands people with excellent capabilities that enable them to go beyond the traditional way of dealing with problems. From an industrial standpoint, the post-covid period has changed, and it now calls for updated, technologically sophisticated, and wit-driven abilities. According to Briede & Drelinga (2020), the ability to successfully adjust to the needs of a changing labor market and apply the idea of sustainable employment is what businesses increasingly look for in employees rather than distinct and confined talent. So rather than shrinking our skill acquisition, employees should learn in a broader spectrum to strengthen their adaptability at workspace. The changing scenario has given rise to the need to conceptualize a new scale in the current context of the situation to determine an individual's employability for the remolded job market. Though substantial amounts of studies (Buheji & Buheji, 2020; de Schepper, Sotiriadou, & Hill, 2021; Yawson, Yamoah, Owusu Sarpong, & Abban-Ampiah, 2020) have been conducted worldwide concerning the actual skillsets valued in this regard, regrettably, the availability of established scale is not redesigned in a newer reality, namely COVID-19 context.

The aim of this study is to develop a scale for sustainable employability skill sets to help job seekers to adjust to ‘new-normal’ lives from a post covid-19 pandemic perspective. This includes identification of the vital skills among the prevalent skillsets, suggests ideas whose implementation can be both met with domestic and global market demand, also encourages policymakers to signify bringing need-based reform to higher education, academic system, and teaching methodologies. Career Construction Theory (Savickas, 2005) provides a conceptual lens through which this study examines employability, particularly in the context of evolving job market demands. Career aspirations, personal desires, social needs and environmental dynamics create a relentless pressure on an individual to engage in continuous adaptation process for successful career development. (Hirschi, Herrmann, & Keller, 2015; Savickas, 2005). Career construction theory examines how people self-manage work-related demands, transitions, and traumas (Savickas, 2013). The COVID-19 pandemic has made a profound impact on human psychology by putting human civilization in a mental trauma and changing the professional landscape by incorporating different skillset requirements for neo normal adaptation.

After thorough analysis and discussion with experts in various sectors, eight skills such as interpersonal skills (Spitzberg & Cupach, 2011), leadership skills (Hambrick & Wowak, 2021), professional etiquettes (Deale & Lee, 2021), individualistic skills (Chamorro-Premuzic, Arteché, Bremner, Greven, & Furnham, 2010), hi-tech skills ((Maisiri, Darwish, & Van Dyk, 2019), analytical skills (Harrigan & Hulbert, 2011), decision making skills (Friedman, 2014), lifelong learning skills have been identified to establish a comprehensive and fruitful scale that will enable the upcoming job seekers to evaluate their job readiness for the market and will also help the employment authorities to assess the potential candidates and identify the best match with their requirements.

## **2.0 Literature Review**

Technology and automation systems have originated from the Industrial Revolution; hence, the Covid-19 hastens digital transformation to cope with this situation. COVID-19 repels economies beneath recession; all the jobs are not affected equally, but most jobs are at risk (Fernandes, 2020). Recent studies have been examined and strived to situate some critical employability skills in the new normal situation (Chen, L, & Kumar, S. 2025; Agrawal, De Smet, Lacroix, & Reich, 2020). The term employability skills in the new normal surpasses the ability

to get a job and more about maintaining that job through tough and difficult times, and coping with job challenges in turbulent times. (Sarfraz, Rajendran, Hewege, & Mohan, 2018) defines employability skill as “specific skill and quality displayed by a person that differentiates one job seeker from another in a particular field of work and helps them get a worthwhile job, supporting them in that job and advance in career to reach their highest potential and make their contribution towards personal and organizational goals.” A person's interpersonal skills are manifested in social situations, at work, within the family, or when dealing with others. Regarding desirable assignments, group involvement, positive reviews and job development, lack of strong interpersonal skills can put an employee at a disadvantage (Ono & Odionye, 2022). Good interpersonal skills enable to participate effectively as team members, meet customer or client expectations, negotiate, make decisions, manage time effectively, take responsibility, build rapport and collaborate with other colleagues resulting in a better and less stressful work environment. From recruiters to business school administrators, a wide range of participants in management education recognize that soft skills, including interpersonal skills, may be the most crucial skills for success in management education. Among interpersonal skills, teamwork is considered a very important skill which employers point out that every position, regardless of industry size, requires some kind of teamwork (Beenen, Pichler, Livingston, & Riggio, 2021)). Szelwach (2020) stated to be a remarkable leader it is necessary to overcome adversity and come out stronger and more committed than before. Interactive organizations require a comparative leadership that supports and encourages information governance practices. Leadership skills abilities are crucial parts of enabling executives to make thoughtful decisions about the mission and goals of their organization, and to allocate resources in a way that best fulfills those mandates. According to Alston, Alston, and Mueller (2021) team work and dedication were ranked by employers as highly important followed by the ability to lead. Hence, leadership includes supervising the work based on goal by providing subordinates, peers proper direction and guidance and decentralizes his/her power. In an organization, etiquette demonstrates how to be comfortable around the people & making a pleasant environment for others. (Chen, Li, & Zhang, 2021) described etiquette as gesture, confidence, and competency one must have in their traits. Nowadays, more attention is paid to etiquette and moral values of the society, emphasizing that moral value should be preserved and implemented in educational institutions. One of the tasks of school principals in the post-covid

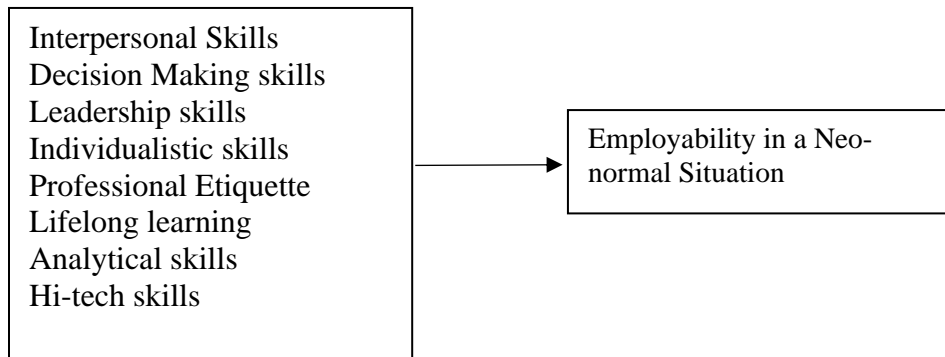
era is to identify ethical challenges (Ghasemzadeh, Mohammadi, & Minaei, 2021). In the revolution of COVID-19, the way of working among the employees of the organization has changed and for this to create deeper synergy in the workplace it needs to be reconsidered (Gavrila Gavrila & De Lucas Ancillo, 2022). The era of today's market concerns e-business, e-mail, e-transaction, e-learning, e-marketing, and the constantly changing global economy. Technology literacy is the understanding of the machines that make up the information age. In the present context, High technological (hi-tech) tools such as Web 2.0, Microsoft office suites, excel, search engine, SEO and SEM, Chatroom, and many more are different from traditional office management equipment. To support a life transition in digitalized era, technological skill enhances the growth of workplace in less time by installing updated available software. Importance of technological skill has already identified in mid-20 furthermore Covid brought visible aspects of technology in many ways to exist in market (Lindner, Muraközy, Reizer, & Schreiner, 2022). New employment opportunities now highly depend on technological knowledge because varieties of information are available in internet where all the information is not relevant for everyone. Many organizations look for information literacy' skill in recruitment which demonstrate ability to identify & evaluate appropriate information to work on among vast of data (Gu & Feng, 2022). Lifelong learning is the building of skills and knowledge that continue throughout one's life. It has been seen as a triangle of research, education & innovation which is a continuous process to adapt & act in thoughtful way. People with lifelong learning skill are aware of reality as technology is dominating human behavior & upgrading their proficiency (Salim, Ali, & Ijab, 2019). It includes an individual's development orientation, internal work criterion, scholastic propensity, and self-objectivity which play an enormous role in developing managerial skills (Piopiunik, Schwerdt, Simon, & Woessmann, 2020). In an organization, tenacity and sound decision-making are key elements which are the foundation of leadership. Decision making often comes when there is a situation to choose among two or more things, which gives the best outcomes in the short, intermediate, or long-term. It is a kind of forecasting about some choices which have relevant consequences, and picking up the best one (Prasad, 2020). In addition, the aptitude to make a quick decision can help to set up a strong bond of trust with other employees that can improve workplace culture. The multi-criteria decision-making technique for Order Preference through Similarity to the Ideal Solution (TOPSIS) will be utilized to develop a ranking of nations founded on criteria that characterize

every three areas which are health, society and work (Marti & Puertas, 2021). Decision-making is a crucial issue in managing a crisis situation and maintaining proper leadership by looking at abilities needed in the workplace for progress. Good decision-making can assist administrators to exhibit their workers that they value their work and have their first-rate pursuits in mind. The modern world is characterized by innovation where businesses compete with each other to provide innovative solutions to existing problems and bring new products to market. Ratiocinative or analytical skills include knowledge and capabilities related to proper analysis of data, meaningful and critical interpretation and presentation. It also means the abilities that allow one to examine, look up and analyze a problem and improve complicated thoughts and solutions. It has been appreciated by some people as a fundamental ability for a postgraduate job because people inside the private sector have claimed higher education to reevaluate how this skill is taught to students (Waltz & Sasso, 2021). Another study by Sabaityte, Davidaviciene, and Karpoviciute (2020) illustrated how companies invest in their employees' literacy rationally, making it visible to bare eyes, increasing this skill in the upcoming tomorrow. In a narrative study that researched with critical questioning improvement taken by undergraduate student leaders at two universities in which students took the Wason Rule Discovery Task (WRDT) and Cornell Critical Thinking Test Level Z (CCTT-Z), it was found that student had no considerable distinction in connection held between inadequately ascertained analytical thinking skills, the incidence of inferential attitudes, and when regulating for educational level. Although the COVID-19 pandemic has uncovered difficulties, the search for best methods and generalizable propositions supports students' critical thinking skills and the ability for their betterment identified by (White, 2023). Individualistic Skills are more valued compared to other particular sets of skills irrespective of fields. In congruence with previous research of (Batey, Chamorro-Premuzic, & Furnham, 2010) individualistic skills are gaining importance in value by employers and are becoming a significant predictor of employability. Individualistic skill posits the ability of a person to exert self-dependence, self-governed decision making, and achievement of goals with individual discretion, often emphasizing self-reliance and personal responsibility over collective action. According to Hooley et al. (2018), individualistic skills are often highlighted in career development and employability discourses that prioritize personal agency, adaptability, and self-promotion in navigating the labor market. They include but are not limited to graduates who thrive for the initiative, teamwork facilitation,

interpersonal skills, self-motivation, adaptability towards changing nature of work, oral communication and presentation skills and stress resilience. Although the process of individualistic skills is not tangible, it is related to personal competence. To overcome various social and financial problems, it can be rearranged to achieve transformation in society so youth can achieve their goal (DeJaeghere & Murphy-Graham, 2022). A quick preview of prior literature in Bangladesh perspective shows that researchers, in one hand, shed light on employability skills (Hosain, Mustafi, & Parvin, 2021; Khan & Mojkury, 2021; Sarfraz et al., 2018), generic skills (Tabassum, Roknuzzaman, & Begum, 2020), soft skills (T. A. Chowdhury & Miah, 2019b), on the other hand, developed a six-dimensional scale for employability in Bangladesh perspective. However, it is very unlikely that no study in Bangladesh is yet been confirmed on the COVID context. Thus, the present study fills the gap addressing the emergence of employable skill set for a neo-normal pandemic context.

## **2.1 Conceptual Framework of Employability Skillsets**

The research endeavor uses literature from all the possible sources, such as indexed journals and conference proceedings (Web of Science, Scopus, Scimago, ABDC, ABS, ABI Inform, ProQuest, and CPCJ), edited books, and magazines. Based on the existing literature and multi-theoretical lens, we developed the following research framework:



### **3.0 Research Methods**

#### **3.1 Scale Development**

While developing the scale or survey measures for the neo-employability skill-set for neo-normal life, we followed the process followed in (Hinkin, 1995; Pham et al., 2023). Initially, the authors identified 62 employability skills or criteria by conducting rigorous literature review in where we employed a panel of experts consisting of teachers with teaching experience in Human Resource (HR) management, graduates at post-graduate levels for identifying 62 skills. They argued that ‘all the skills required in this neo-normal life have appeared in this list, and, however, a few redundancies have been observed. Thus, they recommend this project administrator drops off 7 skills set and, accordingly, we thus retained 55 skills.

Following the process mentioned in Hinkin (1995) and Pham et al. (2023), we invited a group of 10 HR professionals who have been working in talent acquisition department for more than 5 years. The research team explained the process of identifying those enlisted skills set through the extensive literature review and asked them to finally examine the suitability of the identified and refined 55 skills set to the survey questionnaire for collecting the data. After thorough examination in their extensive review process, those professionals asked us to drop off another 4 skills for removing further redundancy. Moreover, they made minor edits to other 15 skills for increasing their readability for eliciting accurate responses from the potential respondents (Beaton, Bombardier, Guillemin, & Ferraz, 2000; T. A. Chowdhury & Miah, 2019a).

At this stage, we identified 51 skills through the cross-level participation of academia, practitioners, and post-graduate students. They also advised us to collect data using survey questionnaire via 5-point Likert scale (where ‘5’ stands for ‘strongly agree’ and ‘1’ stands for ‘not agree at all’) conducting the survey as Likert scale is extensively used in different studies for collecting the attitudinal data (T. A. Chowdhury & Miah, 2019a; Pham et al., 2023). We produced a formal questionnaire with complete statements for representing those 51 skills.

As those statements were drafted in English, we followed back-translation procedure of Brislin (1970). For back-translation procedure, we made a group of bi-lingual experts in HR academia both in English and Bangla who translated

the original developed statement in English into native (Bangla) language. The main purpose of this back-translation to the native (Bangla) is to increase the readability of the questionnaire for eliciting the accurate responses from the respondents (Mahmood et al., 2023). The iterative back-translation process has been continued till we receive no significant difference between the original English and that of in Bangla (native language).

### **3.2 Questionnaire development and administration**

The present study contains multi-item survey questionnaire for representing a variable and divided the entire questionnaire into three different segments. We included dichotomous, multiple choice, open-end, and scale-based questions for administering the survey questionnaire. Additionally, we also included reverse scoring for detecting biasness in the responses.

In section I, we introduced the study's title, project team, and the confidentiality statement. The confidentiality statement focused on the privacy, informed consent issue and anonymity of the respondents' information. The confidentiality and anonymity statements postulated that the present study will keep all data and information in private and individuals' data will not be reported elsewhere rather the general information will be depicted for demonstrating the overall scenario of the study's context. Moreover, we took informed consents of the respondents and guarantee to each of those respondents that anyone can withdraw them at any time during the data collection, processing, and final demonstration.

Section II contains the demographic data of the respondents. This study collected data on the diverse characteristics of the respondents to find out any variation due to the respondents' diversity issues. Notably, the demographic data includes gender, age, employment status, and tenure of the respondents. The organizations where the respondents have been working were also reported.

Section III includes the statements representing each variable both in English and Bangla for the exact comprehension of the respondents. A total of 51 statements were added in the survey questionnaire on a 5-point Likert scale. It is to be noted that 21 items were reversely scored for removing response biasness.

### **3.3 Data collection procedure**

The mixed mode of data collection, such as off-line through physical visits and on-line via uploading google doc form, procedure was employed in this study. The rationale of employing both is to get a large size of data from a wide-variety of respondents (Saunders, Lewis, & Thornhill, 2023). Our research assistants were trained through a rigorous training program about how to collect data from the respondents. They briefed the title, objectives, and other issues of the questionnaire to each respondent, and also the procedure of responding to the survey. Each respondent was told that their participation is voluntary and they may withdraw themselves from this survey at will and at any time during the research. During on-line survey, our research assistants sent the link to them and gave a phone call afterward for repeat reminder to respond to the survey. For off-line survey administration, the research team visited the respondents' premises and briefed the details of the data collection procedure. In addition to this, a self-addressed envelope was given to each respondent for sending the filled questionnaire at their convenience (Dey, Bhattacharjee, Mahmood, Uddin, & Biswas, 2022; M. A. Uddin, Mahmood, & Fan, 2019).

### **3.4 Demographic profile**

The present study distributed 1037 questionnaires through on-line and off-line media to collect the required data. Finally, we received 534 survey questionnaires and found 503 complete questionnaires after eliminating 31 questionnaires with incomplete and un-matched cases. The response rate is 51.49 percent, which is found adequate in any behavioral science research (Davern, 2013). For determining the sample size, we adopted the threshold set by Saunders et al. (2023, p. 298) and found that our sample size is more than the minimum threshold (for example 394 for 5 percent significance level). Moreover, studies showed that any sample size more than 200 responses can be fitted for the SEM (Hoelter, 1983; Loehlin, 2004). Additionally, we further ran the minimum sample size calculation by the rule of 5 threshold accepted in Pituch and Stevens (2016) that postulated that the sample size can be determined by (i) sample size (n) and (ii) the number of predictors (k) utilizing the "5 times rule" (Pituch & Stevens, 2016) which means a minimum of 255 participants would be needed (Bentler & Chou, 1987). Thus, the sample size is adequate.

Table 1 revealed that the majority of the respondents were male (351, 69.8%) with a major portion of them from the total respondents belong to the age range

of 26 years to 30 years. The tenure track of the respondents was found that 380 respondents (77.1 %) have experience of 1 to 5 years, followed by 89 respondents experienced with 6-10 years, and 26 respondents experienced with more than 10 years. More importantly, most of them are serving lower-level management (283 respondents, 56.3%) and have been working in small and medium organizations (219, 43.6%).

**Table 1: Demographic Information**

<b>Variable</b>	<b>Classification</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Gender</b>	Male	351	69.8
	Female	152	30.2
<b>Age</b>	20 years to 25 years	177	35.1
	26 years to 30 years	185	36.8
	31 years to 35 years	79	15.7
	36 years to 40 years	38	7.6
	Above 40 years	24	4.8
<b>Tenure</b>	1 year to 5 years	388	77.1
	6 years to 10 years	89	17.7
	More than 11 years	26	5.2
<b>Management level</b>	Lower level	283	56.3
	Mid-level	193	38.4
	Top-level	27	5.4
<b>Type of firm</b>	Small	219	43.6
	Medium	180	35.8
	Large	104	20.6

**Source: Author's own compilation (2023)**

### **3.5 Data analytical tool**

The present study used a few analytical tools to rigorously analyze the data for determining the skill-set in the neo-normal life. Primarily, we used Microsoft excel to screen and clean the data. Secondly, we used IBM SPSS (version 24) for conducting descriptive study and exploratory factor analysis. Finally, we run structural equation modeling (SEM) based confirmatory factor analysis for proposing the scale. The study used SEM as it is a holistic approach of measuring measurement model and structural model altogether (Hair, Howard, & Nitzl, 2020; Hair Jr., Hult, Ringle, & Sarstedt, 2017). The SEM is a second

generation regression technique of analyzing multi-variate data holistically than in standalone (Hair Jr. et al., 2017).

### **3.6 Employability skill-set development process**

#### **Step 1- exploratory factor analysis**

Before running exploratory factor analysis (EFA), the study ran Kaiser–Myer–Olkin (KMO) test for assessing data adequacy test and the calculated score of KMO (0.833,  $p < 0.01$ ) is reported to adequate for factor analysis (Field, 2018). We then ran EFA and found that 50 items (excepting 1) from 51 (fifty-one) clustered in 8 different groups with the conditions imposed there on, such as principal component analysis, ProMax (rotation), eigenvalue more than 1.00, and absolute co-efficient value above 0.50. These eight dimensions explained employability 54.46 percent. Table 3 represents The Rotated Component Matrix which shows the results of a factor analysis, from where eight skill dimensions were identified from survey or questionnaire items. Each item had a strong loading on a single component, suggesting a structured solution to the factor analysis. The first factor represents Interpersonal Skills with the seven labels representative of that factor loading on high on the component. The second factor represents Decision-Making Skill, particularly considering the elements which show the capacity to analyze information and make informed decisions. The potentially third image is a Leadership Skills which builds on items which present concepts around influencing and leading others. The fourth potentially represents Individualistic skills that relates to personal, or self-managed competencies. The fifth captures what Professional Etiquette behaviors suggest what could be seen as accepted workplace behaviors. The sixth component suggests Lifelong Learning that represents behaviors associated with continuous personal and professional development. The seventh factor suggests Analytical Skills which refers to critical thinking and problem-solving capability. The final factor describes using technology or High-Tech Skills which is associated with the employing technology in a workforce/modern context.

**Table 2. Rotated Component Matrix**

Items	Component							
	Interpersonal	Decision making	Leadership	Individualistic	Professional etiquette	Lifelong learning	Analytical	High-tech
IS4	.807							
IS2	.769							
IS6	.755							
IS7	.754							
IS3	.752							
IS5	.750							
IS1	.749							
DmS5		.770						
DmS6		.766						
DmS4		.756						
DmS1		.720						
DmS3		.679						
DmS2		.675						
DmS7		.665						
LS6			.791					
LS5			.760					
LS2			.754					
LS4			.741					
LS3			.722					
LS1			.632					
LS7			.618					
IK5				.829				
IK4				.810				

*Determining Skillsets for Sustainable Employability in Manufacturing Industry of Bangladesh*

IK7				.810				
IK6				.791				
IK8				.786				
IK2					.805			
IK3					.803			
IK9					.798			
PE5					.792			
PE4					.790			
PE3						.677		
PE2						.666		
PE1						.655		
LIS4						.640		
LIS2						.599		
LIS1						.586		
LIS5						.581		
LIS3						.548		
AS5							.783	
AS6							.780	
AS4							.768	
AS3							.630	
AS1							.617	
AS2							.600	
HtS3								.731
HtS4								.723
HtS5								.721
HtS2								.713
HtS1								.650

Source: Author's own compilation

## **Step 2 - confirmatory factor analysis**

In EFA, it is observed that the employability skill set explains 54.46 percent holistically. In this stage, the study investigated the model-fitness through running confirmatory factor analysis (CFA). We imported component rotated matrix through pattern matrix builder to CFA and found the measurement model (figure 1). The present study used the common thresholds, such as Minimum Discrepancy Function by Degrees of Freedom divided (CMIN/DF), Root Mean Square Residual (RMR), Goodness of fit (GFI), Tucker Lewis index (TLI), Incremental Fit Index (IFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and PClose to estimate the authenticity of the model fitness (Kline, 2011). The model fitness estimates showed that most of the thresholds were met (CMIN/DF=1.247, RMR=0.016, GFI=0.900, IFI=0.967, TLI=0.965, CFI=0.967, RMSEA=0.022, PClose=1.000). The examined regression weight of each item represents each latent variables and it is observed that each item is found significant ( $p < 0.01$ ). Moreover, the study checked modification index (MI) result and found that a few items have higher MI scores. Thus, the re-run of the measurement model has been done and co-variated those items with higher MI scores. The co-variations were executed between e2 and e6, e3 and e5, e12 and e13, e18 and e19, e41 and e43, e43 and e44, e44 and e45, and e46 and e50. The model fitness estimates showed that most of the thresholds were met (CMIN/DF=1.173, RMR=0.016, GFI=0.907, IFI=0.977, TLI=0.975, CFI=0.977, RMSEA=0.019, PClose=1.000) (Hu & Bentler, 1999; Kline, 2011; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Moreover, the examined regression weight of each item representing each latent variables and it is observed that each item is found significant ( $p < 0.01$ ).

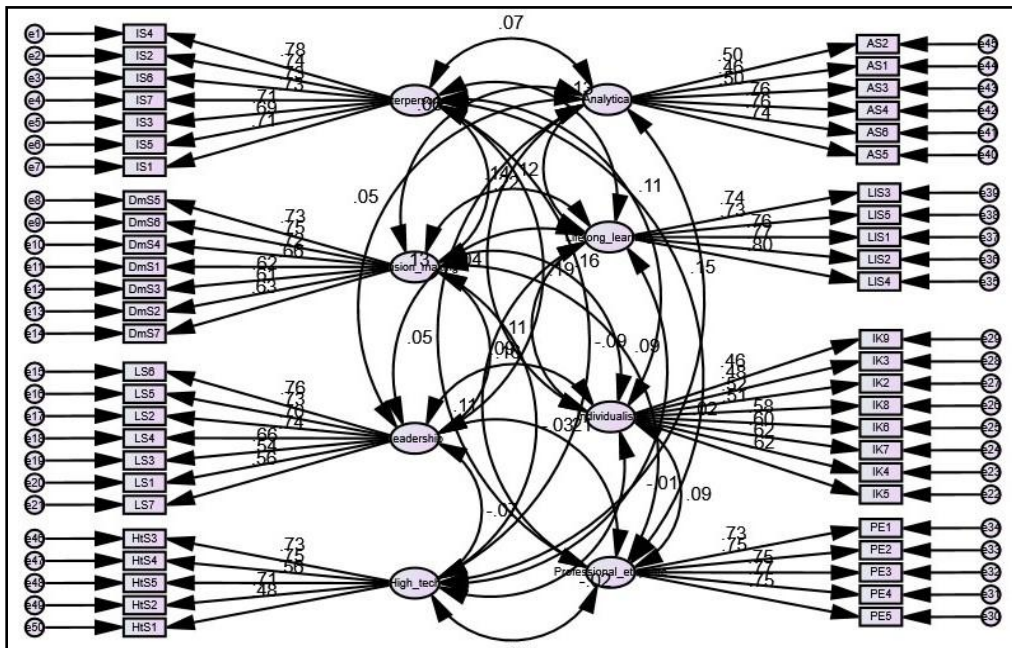


Figure 1. Transforming EFA into CFA

### Step 3 – Constructing the employability skill for Bangladesh

Figure 2 mentioned final (measurement model) with eight (8) different dimensions of employability in the context of Bangladesh. At this stage, the study needs to examine the reliability and validity scores to assess the consistency of the scale and its effectiveness to explain what it intends to really measure. The study initially estimated Cronbach’s Alpha scores showed 0.773, 0.777, 0.793, 0.849, 0.872, 0.853, 0.886, and 0.865 for individualistic skill, high-tech skill, analytical skill, leadership skill, life-long learning skill, decision making skill, interpersonal skill, and professional etiquette skills, respectively.

However, an important concern emerged regarding convergent validity in the early Confirmatory Factor Analysis (CFA). As shown in Table 3, some Average Variance Extracted (AVE) values fell below the recommended threshold of 0.50 (Hair et al., 2020; Hair Jr. et al., 2017), indicating that certain constructs did not explain sufficient variance in their observed indicators. While composite reliability values remained above acceptable levels, the presence of low AVE values suggests that the measurement model may have included items

that were either too broad or overlapping in nature, thus reducing construct clarity and precision.

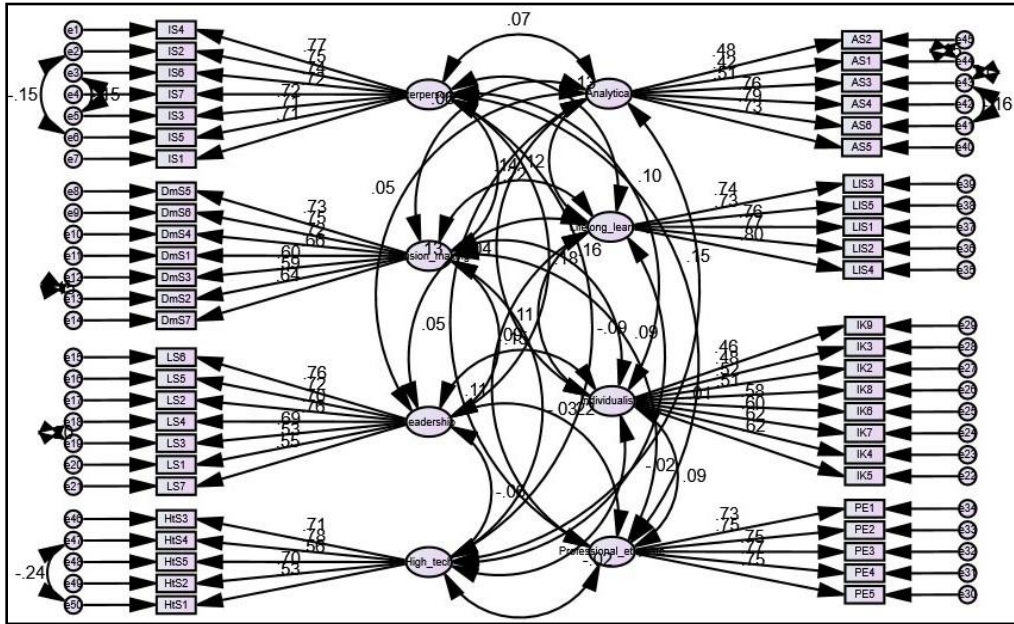


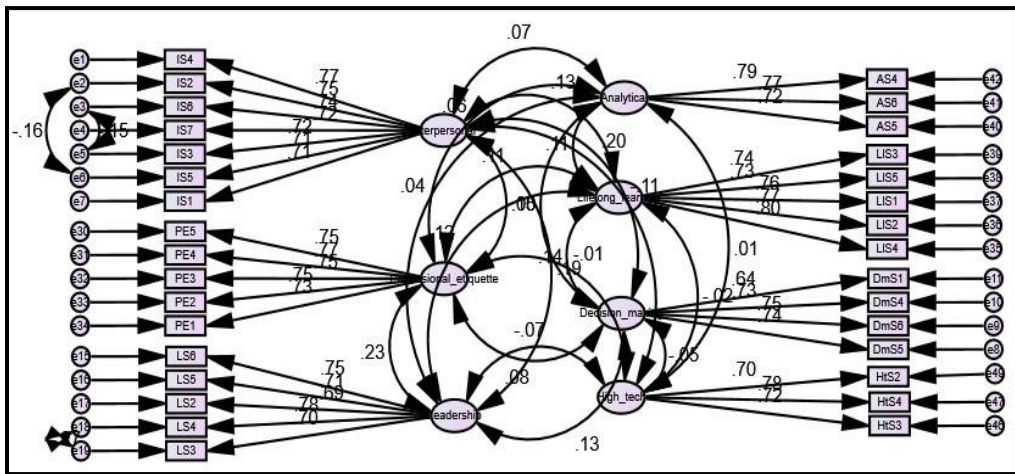
Figure 2. Confirmatory factor analysis (MI adjusted)

Table 3: Reliability and validity estimates

LV	CR	AVE	1	2	3	4	5	6	7	8
1. InS	0.889	0.535	0.731							
2. DS	0.851	<b>0.452</b>	0.217***	0.672						
3. LS	0.854	<b>0.459</b>	0.184***	0.150**	0.678					
4. IS	0.776	<b>0.304</b>	0.104†	0.160**	0.094†	0.552				
5. PES	0.866	0.563	0.149**	0.091†	0.215***	0.092†	0.75			
6. LLS	0.873	0.578	0.133**	0.142**	0.127*	0.115*	0.109*	0.761		
7. AS	0.791	<b>0.400</b>	0.068	0.058	0.046	0.042	0.05	0.115*	0.633	
8. HS	0.794	<b>0.441</b>	-0.088†	-0.034	-0.064	-0.019	0	-0.018	0.006	0.660

LV. Latent variables, InS. Interpersonal skills, DS. Decision-making skill, LS. Leadership skills, IS. Individualistic skill, PES. Professional etiquette skills, LLS. Life-long learning skills, AS. Analytical skills, HS. High-tech skills, CR. Composite reliability, AVE. Average variance extracted, italicized bold scores indicated that AVE with less than threshold (<0.50).

At this stage, we further checked the measurement model and eliminated all those items with the regression weight(s) less than 0.65. After further eliminating items, the figure 3 demonstrated the model fitness measures that met all the fitness measures (CMIN/DF=1.171, RMR=0.014, GFI=0.942, IFI=0.988, TLI=0.987, CFI=0.988, RMSEA=0.018, PClose=1.000) (Hu & Bentler, 1999; Kline, 2011; MacKinnon et al., 2002). Each of the items is found significant ( $p < 0.05$ ). Notably, all items from individualist variable were found regressed weights less than 0.65. Therefore, this latent variable was deleted.



**Figure 3. Confirmatory factor analysis**

Finally, we calculated reliability and validity issues for the newly formatted measurement model via the master calculations. Table 4 shows that the composite reliabilities range from 0.777 to 0.889 and AVE ranges from 0.513 to 0.583 issues which are found satisfactory (Hair et al., 2020; Hair Jr. et al., 2017). Table 5 attests that both reliability (composite reliability) and convergent validity (AVE) are met. The study also examined the discriminant validity that confirms that the square root of any latent variable's AVE is higher than its

correlation with other latent variables. Thus, there is no issue with both convergent validity and discriminant validity.

**Table 4: Reliability and validity estimates**

LV	CR	AVE	1	2	3	4	5	6	7
1. InS	0.889	0.535	0.731						
2. DS	0.807	0.513	0.201***	0.716					
3. LS	0.847	0.527	0.186***	0.129*	0.726				
4. PES	0.866	0.563	0.149**	0.075	0.230***	0.75			
5. LIS	0.873	0.578	0.133**	0.142**	0.123*	0.109*	0.76		
6. AS	0.807	0.583	0.065	0.003	0.037	0.058	0.112*	0.764	
7. HS	0.777	0.538	-0.107*	-0.053	-0.068	-0.01	-0.019	0.008	0.733

(LV. Latent variables, InS. Interpersonal skills, DS. Decision-making skill, LS. Leadership skills, PES. Professional etiquette skill, LIS. Life-long learning skills, AS. Analytical skills, HS. High-tech skill, CR. Composite reliability, AVE. Average variance extracted)

Moreover, the study examined the cross-loading of items to attest if any of the item representing a latent variable loads higher to another latent variable. It is observed that each item loads highly to its latent variable and none of the items loads highly to other latent variable. Finally, the study also checked the multi-collinearity issue of the latent variable as multi-collinearity issue seriously affect the overall predictability of the model due to the presence of higher standard error. Estimates of variance inflation factor postulates that none of them was above 0.10, signifying that the multi-collinearity is not a major concern (Field, 2018).

#### 4.0 Discussion and Implications

Due to the long-term impact of the global recession since 2008, coupled with the recent pandemic COVID-19, the world economy is slowing down significantly. One of the devastating outcomes of such a global economy is the reduction in the purchasing power of people in general, resulting in less production and ultimately a decline in employment opportunities. Thus, graduate employability is and will continue to be a hot topic in forums for the foreseeable future. Although a degree may serve as a declaration of one's level of knowledge and proficiency, employability is more concerned with how

university graduates can integrate into the domestic and global labor market (Deloitte 2010). Having employability skills is essential for recent grads not just to land a job but also to thrive there and most importantly to flourish. They will be able to react quickly to situations, come up with new ideas, and be more effective. Greater flexibility means they can adapt and adjust more easily to changes in technology and organizational restructuring (Khan, 2018). Likewise, learning skills lead to task management while leadership and teamwork skills which require interpersonal and management skills can effectively get the best results from groups and teams. Problem solving skill helps in developing a systematic and dynamic approach to solving multidimensional problems encountered at work. These skills are necessary to work in all job areas and at all levels of organizational hierarchies. There is an increasing need for employees to possess the competencies required to function in a multicultural workplace. Not only are globally competent professionals necessary for international roles, but they are also necessary for businesses to compete and flourish internationally (Caligiuri and Tarique, 2012). In today's world which is shaped by rapid changes and advancements in all fields, lifelong learning has become evident to adjust with the developments.

While graduate skills are more widespread in the 21st century, expanding research has not yet been translated into a better understanding of how new shocks such as the COVID-19 pandemic might alter employability skills. In this direction, our analysis yields a set of employability skills that are likely to benefit both the students as well as those about to start their careers and enter the job market. These findings will also be a threshold for academia and policymakers in designing curriculum, reforming teaching methods, restructuring classroom setting, developing global employability attributes and relevant policies to prepare graduates ready to work around the world. As the worldwide number of workers is expected to increase (Lauder, 2013) compared to job prospects (ILO, 2015b), the impact of this global situation will be more visible in emerging economies than in advanced economies. Therefore, to stay relevant and thrive in a competitive workforce, it is now even more crucial for employees and job searchers to have the necessary skills and abilities alongside their degree. Academia and industry experts should work hand in hand to develop up-to-date curriculum to produce skilled graduates that will ultimately enrich the job market. More collaboration is needed from the employers' side

with the universities to provide learning experiences that will foster the development of students' employability skills. Policymakers should encourage and support the continuation of experimentation and learning in various programs that connect educational institutions and industries and direct government resources to improve teachers' ability to teach employability skills. Institutions should design the classroom in a manner that replicates the key features of actual work environments and provides students with tasks similar to what employees do in those situations.

According to The World Economic Forum's (WEF) (2010) report on talent mobility, the mismatch between demand and supply of skills is so severe that it will lead to a real talent crisis in less than a decade unless industry experts, policymakers and academic institutions work jointly to implement an inclusive, modern human capital strategy. Hence, it is obvious that the development of a system that promotes and upgrades employability skills is needed in no time. The study's conclusions are in line with Career Construction Theory, which highlights flexibility as a crucial skill for managing changing career paths (Savickas, 2005; 2013). Sustainable employability in Bangladesh's manufacturing sector is contingent upon both technical proficiency and the ability of the individual to continuously re-create their professional identity in the face of market fluctuations, technological breakthroughs, and socio-environmental disruptions like the COVID-19 pandemic.

#### **4.1 Limitations and direction for future research**

Although this research appears to have many implications, it is not beyond limitations. The major limitation of the study is that it focused on the organizations based in Chattogram City. Employers' perceptions may vary depending on type of work experience and environment. A similar study could be conducted using larger sample groups across other cities in the country comparing the perceptions of students and employers on essential employability skills to make the results more generalizable. Additionally, our research findings are based solely on data collected from employees and employers in the manufacturing industry. Further research should include other industries as well to provide deeper analysis and understanding to adequately integrate employability skills with industry needs. Moreover, qualitative investigation is warranted to strengthen the research outcomes.

#### **4.2 Concluding remarks**

The developed Employability Skills Assessment Tool is an analytical instrument used to make decisions about students, graduates and employees. As mentioned above, employability skills are the unique combination of skills, knowledge and values needed to obtain a first job and navigate throughout the career. Employers are also interested to hire candidates who are "job-ready" with clear job-specific skills and can easily be productive. To be competitive in the job market, graduates need to be equipped with employability skills throughout their studentship. Higher education institutions are growing as a source of vital human capital that supports national economic growth. Consequently, it is evident that there is a need to integrate these eight skills found from this study namely interpersonal skill, decision-making skill, leadership skill, individualistic skill, professional etiquette skill, life-long learning skill, analytical skill, high-tech skill into the curricula of higher education.

## References

- Agrawal, S., De Smet, A., Lacroix, S., & Reich, A. (2020). To emerge stronger from the COVID-19 crisis, companies should start reskilling their workforces now. *McKinsey Insights (Issue May)*, 1-7.
- Alam, A. (2022). Mapping a sustainable future through conceptualization of transformative learning framework, education for sustainable development, critical reflection, and responsible citizenship: an exploration of pedagogies for twenty-first century learning. *ECS Transactions*, 107(1), 9827.
- Alston, E., Alston, L. J., & Mueller, B. (2021). *Leadership and Organizations: National Bureau of Economic Research*.
- Amankwah-Amoah, J., Khan, Z., & Wood, G. (2021). COVID-19 and business failures: The paradoxes of experience, scale, and scope for theory and practice. *European Management Journal*, 39(2), 179-184.
- Batey, M., Chamorro-Premuzic, T., & Furnham, A. (2010). Individual differences in ideational behavior: Can the big five and psychometric intelligence predict creativity scores? *Creativity Research Journal*, 22(1), 90-97.
- Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*, 25(24), 3186–3191. doi: 10.1097/00007632-200012150-00014
- Beenen, G., Pichler, S., Livingston, B., & Riggio, R. (2021). The good manager: Development and validation of the managerial interpersonal skills scale. *Frontiers in Psychology*, 12, 631390.
- Bentler, P. M., & Chou, C.-P. (1987). Practical Issues in Structural Modeling. *Sociological Methods & Research*, 16(1), 78-117. doi: doi:10.1177/0049124187016001004
- Briede, L., & Drelinga, E. (2020). Personal sustainability and sustainable employability: Perspective of vocational education students. *Journal of Teacher Education for Sustainability*, 22(2), 40-48.
- Brislin, R. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185-216. doi: <https://doi.org/10.1177/135910457000100301>
- Agrawal, S., De Smet, A., Lacroix, S., & Reich, A. (2020). To emerge stronger from the COVID-19 crisis, companies should start reskilling their workforces now. *McKinsey Insights (Issue May)*, 1-7.
- Alam, A. (2022). Mapping a sustainable future through conceptualization of transformative learning framework, education for sustainable development, critical reflection, and responsible citizenship: an exploration of pedagogies for twenty-first century learning. *ECS Transactions*, 107(1), 9827.
- Alston, E., Alston, L. J., & Mueller, B. (2021). *Leadership and Organizations: National Bureau of Economic Research*.

*Determining Skillsets for Sustainable Employability in Manufacturing Industry of Bangladesh*

- Amankwah-Amoah, J., Khan, Z., & Wood, G. (2021). COVID-19 and business failures: The paradoxes of experience, scale, and scope for theory and practice. *European Management Journal*, 39(2), 179-184.
- Batey, M., Chamorro-Premuzic, T., & Furnham, A. (2010). Individual differences in ideational behavior: Can the big five and psychometric intelligence predict creativity scores? *Creativity Research Journal*, 22(1), 90-97.
- Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*, 25(24), 3186–3191. doi: 10.1097/00007632-200012150-00014
- Beenen, G., Pichler, S., Livingston, B., & Riggio, R. (2021). The good manager: Development and validation of the managerial interpersonal skills scale. *Frontiers in Psychology*, 12, 631390.
- Bentler, P. M., & Chou, C.-P. (1987). Practical Issues in Structural Modeling. *Sociological Methods & Research*, 16(1), 78-117. doi: doi:10.1177/0049124187016001004
- Briede, L., & Drelinga, E. (2020). Personal sustainability and sustainable employability: Perspective of vocational education students. *Journal of Teacher Education for Sustainability*, 22(2), 40-48.
- Brislin, R. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185-216. doi: <https://doi.org/10.1177/135910457000100301>
- Buheji, M., & Buheji, A. (2020). Planning competency in the new Normal–employability competency in post-COVID-19 pandemic. *International Journal of Human Resource Studies*, 10(2), 237-251.
- Caligiuri, P., & Tarique, I. (2012). Dynamic cross-cultural competencies and global leadership effectiveness. *Journal of world Business*, 47(4), 612-622.
- Chamorro-Premuzic, T., Arteché, A., Bremner, A. J., Greven, C., & Furnham, A. (2010). Soft skills in higher education: Importance and improvement ratings as a function of individual differences and academic performance. *Educational Psychology*, 30(2), 221-241.
- Chen, L., Li, T., & Zhang, T. (2021). Supply chain leadership and firm performance: A meta-analysis. *International Journal of Production Economics*, 235, 108082.
- Chen, L., & Kumar, S. (2025). *Enhancing sustainable employability through digital skill development in emerging economies*. *International Journal of Human Resource Management*, 36(4), 450–470. <https://doi.org/10.1080/09585192.2024.9812345>
- Chowdhury, T. A., & Miah, M. K. (2019a). Developing Multidimensional Employability Skill Index: A Study of Local and Multinational Companies in Bangladesh. *South Asian Journal of Human Resources Management*, 6(1), 73-96. doi: 10.1177/2322093718821217

- Chowdhury, T. A., & Miah, M. K. (2019b). Perceptions of students and employers regarding employability skills for entry-level positions in marketing and sales. *Australian Journal of Career Development, 28*(1), 3-13. doi: 10.1177/1038416217751566
- Davern, M. (2013). Nonresponse rates are a problematic indicator of nonresponse bias in survey research. *Health Services Research, 48*(3), 905-912. doi: 10.1111/1475-6773.12070
- de Schepper, J., Sotiriadou, P., & Hill, B. (2021). The role of critical reflection as an employability skill in sport management. *European Sport Management Quarterly, 21*(2), 280-301.
- Deale, C. S., & Lee, S.-H. (2021). An exploratory study of hospitality and tourism stakeholders' perceptions of professional etiquette. *Journal of Hospitality & Tourism Education, 33*(1), 43-56.
- DeJaeghere, J., & Murphy-Graham, E. (2022). *Life skills education for youth: Critical perspectives*. Sweden: Springer Nature.
- Dey, M., Bhattacharjee, S., Mahmood, M., Uddin, M. A., & Biswas, S. R. (2022). Ethical leadership for better sustainable performance: Role of employee values, behavior and ethical climate. *Journal of Cleaner Production, 337*, 130527. doi: <https://doi.org/10.1016/j.jclepro.2022.130527>
- Fernandes, N. (2020). Economic effects of coronavirus outbreak (COVID-19) on the world economy.
- Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics ( 5th ed.)*. London, UK.: Sage Publications Inc.
- Friedman, G. (2014). Workers without employers: shadow corporations and the rise of the gig economy. *Review of keynesian economics, 2*(2), 171-188.
- Gavrila Gavrila, S., & De Lucas Ancillo, A. (2022). Entrepreneurship, innovation, digitization and digital transformation toward a sustainable growth within the pandemic environment. *International Journal of Entrepreneurial Behavior & Research, 28*(1), 45-66.
- Ghasemzadeh, A., Mohammadi, M., & Minaei, H. (2021). Ethical challenges of school principals during of COVID-19. *International Journal of Ethics and Society, 3*(1), 15-23.
- Gu, C., & Feng, Y. (2022). Influence of Public Engagement with Science on Scientific Information Literacy During the COVID-19 Pandemic: Empirical Evidence from College Students in China. *Science & education, 31*(3), 619-633.
- Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research, 109*, 101-110. doi: <https://doi.org/10.1016/j.jbusres.2019.11.069>
- Hair Jr., J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Los Angeles: USA: Sage Publication.
- Hambrick, D. C., & Wowak, A. J. (2021). Strategic leadership. *Strategic management: State of the field and its future, 337-353*.

*Determining Skillsets for Sustainable Employability in Manufacturing Industry of Bangladesh*

- Harrigan, P., & Hulbert, B. (2011). How can marketing academics serve marketing practice? The new marketing DNA as a model for marketing education. *Journal of marketing education*, 33(3), 253-272.
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21(5), 967-988. doi: [https://doi.org/10.1016/0149-2063\(95\)90050-0](https://doi.org/10.1016/0149-2063(95)90050-0).
- Hirschi, A., Herrmann, A., & Keller, A. C. (2015). Career adaptivity, adaptability, and adapting: A conceptual and empirical investigation. *Journal of Vocational Behavior*, 87, 1-10. doi:10.1016/j.jvb.2014.11.008
- Hosain, M. S., Mustafi, M. A. A., & Parvin, T. (2021). Factors affecting the employability of private university graduates: an exploratory study on Bangladeshi employers. *PSU Research Review, ahead-of-print*(ahead-of-print). doi: 10.1108/PRR-01-2021-0005
- Hu, L.-t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. doi: <https://doi.org/10.1080/10705519909540118>
- ILO. (2020). ILO Monitor: COVID-19 and the World of Work.
- Khan, M. A. I., & Mojkury, M. A. H. (2021). Curricula and Employability: An Empirical Study on Tertiary Level Students of Bangladesh. *Asian Journal of Education and Social Studies*, 17(2), 1-10. doi: <https://doi.org/10.9734/ajess/2021/v17i230415>
- Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling*. New York, NY: The Guilford Press.
- Lindner, A., Muraközy, B., Reizer, B., & Schreiner, R. (2022). Firm-level technological change and skill demand. (1857), 1-138.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1), 83-104. doi: 10.1037/1082-989X.7.1.83
- Mahmood, M., Uddin, M. A., Hwang, H. J., Ostrovskiy, A., Orazalin, N., & Griffiths, M. D. (2023). Social Networking Site Use, Personality, User Habit, and Subjective Wellbeing: A Kazakhstani Pilot Study. *Journal of Technology in Behavioral Science*. doi: 10.1007/s41347-023-00312-7
- Maisiri, W., Darwish, H., & Van Dyk, L. (2019). An investigation of industry 4.0 skills requirements. *South African Journal of Industrial Engineering*, 30(3), 90-105.
- Marti, L., & Puertas, R. (2021). European countries' vulnerability to COVID-19: Multicriteria decision-making techniques. *Economic Research-Ekonomska Istraživanja*, 34(1), 3309-3320.
- Ono, G. N., & Odionye, C. M. (2022). Study about Interpersonal Communication for Development. *Research Developments in Arts and Social Studies Vol, 1*, 98-108.
- Pham, N. T., Jabbour, C. J. C., Pereira, V., Usman, M., Ali, M., & Vo-Thanh, T. (2023). Common good human resource management, ethical employee behaviors, and organizational

- citizenship behaviors toward the individual. *Human Resource Management Journal*, n/a(n/a). doi: <https://doi.org/10.1111/1748-8583.12493>
- Piopiunik, M., Schwerdt, G., Simon, L., & Woessmann, L. (2020). Skills, signals, and employability: An experimental investigation. *European Economic Review*, 123, 103374.
- Pituch, K. A., & Stevens, J. P. (2016). *Applied Multivariate Statistics for The Social Sciences*. New York, NY: Routledge, Taylor & Francis Group.
- Prasad, L. (2020). *Principles and practice of management*: Sultan Chand & Sons.
- Sabaityte, J., Davidaviciene, V., & Karpoviciute, R. (2020). Learning Skills for Enhancing the Use of Big Data. *World Journal on Educational Technology: Current Issues*, 12(1), 23-36.
- Salim, M. H. M., Ali, N. M., & Ijab, M. T. (2019). Understanding students' motivation and learning strategies to redesign massive open online courses based on persuasive system development. *International Journal of Advanced Computer Science and Applications*, 10(12).
- Sarfraz, I., Rajendran, D., Hewege, C., & Mohan, M. D. (2018). An exploration of global employability skills: a systematic research review. *International Journal of Work Organisation and Emotion*, 9(1), 63-88.
- Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research Methods for Business Students* (9th ed.). Harlow: Pearson Education Limited.
- Savickas, M. L. (2005). *The theory and practice of career construction*. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 42–70). John Wiley & Sons.
- Savickas, M. L. (2013). Career construction theory and practice. In R. W. Lent & S. D. Brown (Eds.), *Career development and counselling: Putting theory and research into work* (2nd ed., pp. 147-183). Hoboken, NJ: Wiley.
- Smith, J., & Rahman, M. (2024). *Skill requirements for Industry 4.0 in the manufacturing sector: A case study from South Asia*. *Journal of Manufacturing Technology Management*, 35(2), 215–233.  
<https://doi.org/10.1108/JMTM-07-2023-0345>
- Spitzberg, B. H., & Cupach, W. R. (2011). Interpersonal skills. *The Sage handbook of interpersonal communication*, 4, 481-527.
- Szelwach, C. (2020). Embodied leadership: Skills for the fourth industrial revolution. *Body Studies Journal*, 2(6), 53-65.
- Tabassum, M., Roknuzzaman, M., & Begum, D. (2020). Employability skills of new generation lis professionals in Bangladesh. *Journal of Knowledge & Communication Management*, 10(2), 121-144.
- Totskaya, N. (2021). Increasing Employability Through Development of Generic Skills: Considerations for Remote Course Delivery During COVID-19 Pandemic (pp. 69-76): Springer.

## *Determining Skillsets for Sustainable Employability in Manufacturing Industry of Bangladesh*

- Uddin, M. (2021). Addressing employability challenges of business graduates in Bangladesh: Evidence from an emerging economy perspective. *Australian Journal of Career Development, 30*(2), 83-94.
- Uddin, M. A., Mahmood, M., & Fan, L. (2019). Why individual employee engagement matters for team performance? Mediating effects of employee commitment and organizational citizenship behaviour. *Team Performance Management: An International Journal, 25*(1/2), 47-68. doi: <http://dx.doi.org/10.1108/TPM-12-2017-0078>
- Waltz, R. W., & Sasso, P. A. (2021). What's With the Attitude? Implicit Attitudes and Critical Thinking in Traditional Undergraduate Student Leaders. *Journal of College and Character, 22*(3), 200-214.
- White, A. (2023). Critical workers? Private security, public perceptions and the Covid-19 pandemic. *Security Journal, 36*(2), 317-332.
- White, A. (2023). *Critical workers? Private security, public perceptions and the Covid-19 pandemic. Security Journal, 36*(2), 317-332.

### **Acknowledgements**

The authors would like to express their sincere gratitude to the Research and Publication Cell, University of Chittagong, for providing the financial support that made this research possible. Their contribution is gratefully acknowledged and deeply appreciated.