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Outcome-based Learning and Graduate Employability: The Case of Bangladesh

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ABSTRACT

There is an increasing body of literature focused on outcome-based learning and its impact on students' employability. Current higher education policies often fall short of aligning with the demands of a rapidly evolving society and the expectations of employers globally, which has led to a considerable disconnect between university education and the job market. This study investigates the relationship between outcome-based learning and graduate employability, aiming to identify the existing literature in this field and propose a future research agenda. Specifically, it explores the connections among students' international mindsets, learning outcomes, academic performance, and employability among postgraduate students at Bangladesh Open University (CEMBA/CEMPA/MBA/PMBA programs). The findings underscore the conceptual rationale for enhancing employability among university students through increased engagement and improved learning outcomes. Furthermore, the proposed conceptual model suggests that students' learning outcomes can significantly contribute to the primary objective of university education: employability, with a mediating effect.

KEYWORDS

Employability; outcome-based education; Bangladesh Open University.

1. Introduction

A growing body of literature exists on outcome-based learning, and graduate employability already exists (Arkoudis & Doughney, 2016; Henderson & Trede, 2017; Jorre de St Jorre & Oliver, 2018; Lloyd & Griffiths, 2008; Peng, 2019; C. Smith & Worsfold, 2015; Sweetman, Hovdhaugen, & Karlsen, 2014; Tucker, Byrnes-Loinette, & Bodary, 2018; Warraich & Ameen, 2010; Whelan, 2017; Young & Keup, 2018). A significant part of the outcome-based learning on employability literature has examined work-integrated learning in the light of graduate employability. Since both

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the objectives—outcome-based learning and work-integrated learning—focus on the common goal of graduate employability, this study examines both as part of the literature review. A part of work-integrated learning is also outcome-based learning (Schuster & Glavas, 2017). Work-integrated learning can be explained as the combination of common effort from students, academic supervisors, and industry (Raelin, 1997). The objective of work-integrated learning is to incorporate industry experience for students during their higher education period through work placement, so that students gain real-life experience (Calvin Smith & Worsfold, 2014).

In recent years, the discourse on graduate employability has also shifted toward a more holistic view that incorporates not only technical competencies but also soft skills, adaptability, and lifelong learning capabilities. Studies highlight that universities worldwide are under increasing pressure to align their curricula with the dynamic needs of industry, technological disruptions, and globalization of labour markets (Clarke, 2018; Bilsland, Carter, & Wood, 2019). For developing countries such as Bangladesh, these challenges are even more pronounced due to structural inefficiencies, limited industry–academia collaboration, and the prevalence of traditional pedagogical approaches. Consequently, there is an urgent need to critically evaluate how outcome-based learning initiatives can be leveraged to bridge the employability gap in such contexts. This study contributes to this discourse by providing empirical evidence from the postgraduate programs of Bangladesh Open University, thereby extending the global conversation on outcome-based learning and employability into a developing country perspective.

Higher education policy fails to meet the requirements of a rapidly changing society and employers' expectations worldwide, resulting in a significant gap between university education and employment. This study aims to explore the relationship among students' international mindsets, learning outcomes, students' performance and student employability among Bangladesh Open University postgraduate (CEMBA/CEMPA/MBA/PMBA programs) students. The main objective of this study is to examine the mediating role of learning outcomes on the employability of Bangladesh Open University Postgraduate Students (CEMBA/CEMPA/MBA/PMBA programs). This study only focuses on the School of Business of Bangladesh Open University (BOU), especially the Master of Business Administration (MBA) program, Commonwealth Executive Master of Business Administration (CEMBA) and Commonwealth Executive Master of Public Administration (CEMPA) program and the Professional Master of Business Administration (PMPA) for sample selection and result accumulation.

2. Literature Review

2.1 Overview of Bangladesh Open University

Since its founding in 1992, Bangladesh Open University (BOU) has provided distance education. Every Bangladeshi citizen can attend this university at any time, and students can study there while staying anywhere in the world. The only public university that uses an open and distance learning method to deliver academic programs is the Bangladesh Open University. With the help of its 12 Regional Centers (RCs), 80 Sub-Regional Centers (SRCs), and 1550 Study Centers (as of December 2021), it has a nationwide network that enables it to bring a wide range of distance learning programs right to the doorsteps of students in various regions. Students can use their home as their campus and incorporate studying into a flexible, self-determined schedule. BOU presently has 1550 study centers spread across the nation that provide 83 academic programs. BOU now offers 83 programs (64 formal programs and 19 non-formal programs), with the assistance of 6 academic schools. In total, there are 672859 students and 24067 teachers or tutors (as of December 31, 2021).

2.2 Research Framework

A conceptual framework has been developed based on the literature review as presented in Figure 8 which shows the independent variables (student engagement) that includes six relationships such as higher order thinking, course effort, collaborate learning student facility, interpersonal engagement and campus support. The present study proposes employability as the dependent variable and learning outcomes as the mediating variable. This mediating construct were identified through literature review and are consistent with the objective of the study. This study has developed several hypotheses based on the study's research objective in order to determine the relations that exist between student engagement and employability.

Based on the findings of earlier studies, the conceptual model as illustrated in Figure 1 depicts the conceptual motivation for the argument of creating employability among the university students through student engagement and learning outcomes. Student engagement can also impact the employability. However, according to the proposed conceptual model, learning outcomes of students can contribute to the core objective of university education, which is employability with mediating impact.

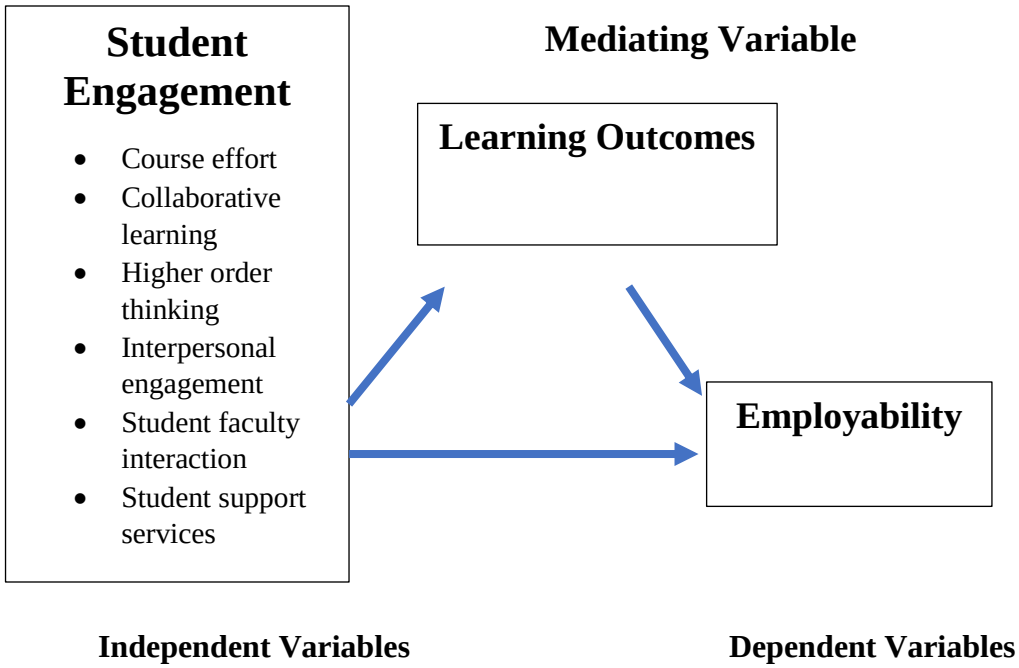

Figure 1: Research framework

2.3 Hypotheses Formulation

This study's hypotheses depend on the statement that sound Student engagement has a direct effect on the employability of Bangladesh Open University postgraduate students. According to the conceptual framework, student engagement is closely linked to employability. The results may or may not support the hypotheses. The following sections describe the hypotheses proposed for this study.

H1: Course effort is positively related to learning outcomes
H2: Collaborative learning is positively related to learning outcomes
H3: Higher-order thinking is positively related to learning outcomes
H4: Interpersonal engagement is positively related to learning outcomes
H5: Student-faculty interaction is positively related to learning outcomes
H6: Student Support Services is positively related to learning outcomes
H7: Course effort is positively related to employability
H8: Collaborative learning is positively related to employability
H9: Higher-order thinking is positively related to employability
H10: Interpersonal engagement is positively related to employability

H11: Student-faculty interaction is positively related to employability
H12: Student Support Services is positively related to employability
H13: learning outcomes are positively related to employability
H14: The effect of student engagement towards course effort on employability is mediated by learning outcomes.
H15: The effect of student engagement towards collaborative learning on employability is mediated by learning outcomes.
Learning outcomes mediate H16: The effect of student engagement on employability through higher-order thinking.
H17: The effect of student engagement towards interpersonal engagement *on employability is mediated by learning outcomes*
H18: The effect of student engagement towards student-faculty interaction on employability is mediated by learning outcomes
H19: The effect of student engagement towards Student Support services on employability is mediated by learning outcomes

3. Research Design and Methodology

A research design provides a framework to guide the collection and analysis of data in research. In particular, it outlines the details of the necessary procedures to formulate and achieve answers to the research problems (McDaniel & Gates, 2010; Zikmund et al., 2013). This study uses both qualitative and quantitative approaches. In the qualitative approach, research was conducted in the form of extensive literature reviews and focus group discussions with the respondents. Following the qualitative phase, the quantitative phase involved field research, collecting data from 316 learners online via self-administered questionnaires.

3.1 Population and Sample Size

The population of this study comprises the postgraduate students of the Bangladesh Open University. The population of the current study is 871 students, who are enrolled in a total of four postgraduate programs at the Bangladesh Open University's School of Business. About 37% of current CEMBA/CEMPA, MBA, and PMBA students are included in the study.

On the sample size, Saiful et al. (2011) suggested that an applicable sample size is between 30 and 500 respondents. According to Cohen's (1975) rule of thumb, 260 is the minimum sample size for a PLS-SEM analysis for eight arrows directed at one construct (Hair et al., 2014). Hair et al. (2010) explained that a significant sample is needed because smaller samples are not stable for estimation when carrying out a test on a research model by utilizing the SEM. Nevertheless, no consensus has been reached among scholars on the adequate sample size for SEM. For instance, William

and Holahan (1994) suggested 100 as an adequate sample size. According to Hair et al. (2012), a researcher must take into consideration the distribution of data, methods of estimation, complexity of models, missing data, as well as the quantity of the average variance extracted (AVE) when determining the SEM analysis's sample size. A sample size of between 150 and 400 is needed and proposed when the estimation is based on maximum likelihood. In short, the more complex models with more variables and items require a larger sample size. As a result, the sample size in this study is 316, as recommended by Hair et al (2012).

Generally, calculation of sample size does not necessarily result in the representation of the population; it depends on the process used in the selection of the elements (Hair et. al., 2012).

Thus, the total number of respondents is 316 from three postgraduate programs of the School of Business. The survey was conducted between August 2021 and October 2021. There are 112 CEMBA/CEMPA students among them, with participation rates for Chittagong and Dhaka of 50 and 62 students, respectively; in addition to that, a total of 107 MBA students from the university's various study centers participated in this study. The participation in the MBA program is as follows: 40, 30, 10, 15, and 12 students from Dhaka, Chittagong, Rajshahi, Khulna, and Sylhet, respectively, in this study. In addition, 97 students from the PMBA program participated in the survey, comprising 50 from Gazipur and 47 from Dhaka. When there are 316 student respondents, we cease receiving responses from the respondents. Since the data was complete and accurate, no exclusion was necessary. Table 1 shows the respondents by study center.

Table 1: The respondents for the primary data collection

Program Name	Study Centre-wise respondents	
CEMBA/CEMPA	Dhaka	62
	Chittagong	50
MBA	Dhaka	40
	Chittagong	30
	Rajshahi	10
	Khulna	15
	Sylhet	12
PMBA	Dhaka	47
	Gazipur	50
Total Respondents	**316**	

For Qualitative analysis, we conducted focus group discussions. The focus group discussion (FGD) construction is listed in Table 2.

Table 2: Demographic distribution of respondents for FGD

Study Centre Name	No. of FGD	Attendance	Program Name
Dhaka	3	30	CEMBA/ CEMPA, MBA &PMBA
Chittagong	2	20	CEMBA/ CEMPA & MBA
Rajshahi	1	10	MBA
Khulna	1	10	MBA
Sylhet	1	10	MBA
Gazipur	1	10	PMBA

For the section on the literature review, the secondary source has been widely consulted. The references section at the end contains citations for all of the secondary sources referenced in this report.

3.2 Focus group discussion

The focus group discussion (FGD) is an extension of the study where we examined the factors of employability of different postgraduate programs of the School of Business, Bangladesh Open University. Respondents' profile is generally used to present the main characteristics of the samples. This section provides demographic information about the respondents, including their gender, age, nationality, education level, and profession.

4. Analysis

4.1 PLS-SEM Analysis Results

In Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis, the PLS measurement model gives the values of reliability test, validity test and path coefficient along with the coefficient of determination. In a structural equation model-based partial least squares analysis, all the variables are usually connected in one figure that shows the direction of the relationship (path coefficient) between exogenous and endogenous variables. Figure 2 below shows the hypothesized model generated through smart PLS software version 2.0M3.

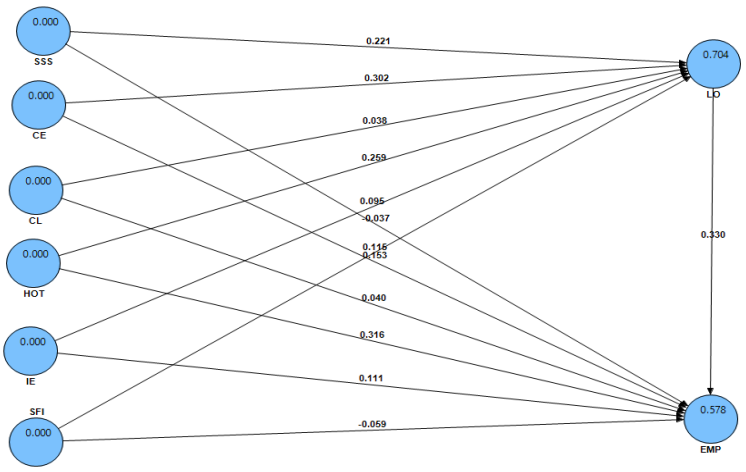

Figure 2: Hypothesized model generated through smart PLS

As shown in Table 3, the square root of the AVEs exceeds the highest correlation between that construct and the other constructs, providing further support for discriminant validity (Chin, 1998; Fornell & Larcker, 1981) of the constructs in this study.

Table 3: Inter-constructs correlations

	CE	CL	EMP	HOT	IE	LO	SFI	SSS
CE	0.808							
CL	0.651	0.880						
EMP	0.653	0.504	0.738					
HOT	0.711	0.540	0.685	0.866				
IE	0.511	0.449	0.499	0.487	0.864			
LO	0.757	0.621	0.694	0.702	0.561	0.792		
SFI	0.594	0.685	0.446	0.482	0.474	0.613	0.879	
SSS	0.582	0.562	0.465	0.477	0.515	0.655	0.554	0.882

4.2 Coefficient of Determination (R^2)

The coefficient of determination (R^2) value indicates how much variation in the endogenous variable is caused by the exogenous variables. The present study has a R^2 value of 0.704 for LO, indicating that the independent variables influence the Learning Outcome by 70.40%. Similarly, the employability of graduates is influenced by the independent variables by 57.80%, with a R2 value of 0.578. As a rule of thumb, a R^2 values of 0.75, 0.50, or 0.25 for endogenous latent variables can be respectively described as substantial, moderate, or weak (Hair, Ringle, & Sarstedt, 2011; Moosbrugger et al., 2009). The present study has got a R^2 value of 0.704 for LO which is very close to substantial effect and a R^2 value of 0.578 for EMP which falls in the moderate effect range.

4.3 Structural Model for Hypothesis Testing

Having assessed the measurement model for reliability and validity, the next step is the assessment of the structural model. In the structural model of PLS analysis, hypothesis testing can be done. Here, the path coefficients, t-statistics, p-values and errors are considered. A hypothesis is said to be accepted if it is significant at 5% level (t value >1.96 or p<0.05) (Henseler & Fassott, 2010). Table 4 shows the findings of the structural model for hypothesis testing.

Table 4: Findings of the structural model

Hypothesized Path	Path coefficient	Standard Error	T Value	P Value
CE->LO (H1)	0.301	0.069	4.257	0.000
CL-> LO (H2)	0.038	0.064	0.592	0.554
HOT->LO(H3)	0.259	0.071	3.649	0.000
IE-> LO(H4)	0.095	0.057	1.643	0.101
SFI -> LO(H5)	0.115	0.046	2.485	0.013
SSS -> LO(H6)	0.221	0.061	3.613	0.000
CE->EMP (H7)	0.153	0.075	2.036	0.042
CL-> EMP (H8)	0.040	0.061	0.658	0.510
HOT->EMP(H9)	0.316	0.077	4.097	0.000
IE-> EMP (H10)	0.110	0.050	2.201	0.028
SFI -> EMP (H11)	-0.058	0.057	1.013	0.311
SSS -> EMP(H12)	-0.037	0.068	0.547	0.584
LO->EMP (H13)	0.329	0.087	3.757	0.000

The smartphone 2.0M3 was used to test the structural estimates of the constructs in this study for hypothesis testing. The result demonstrates the findings of the structural model for hypothesis testing. The findings support Hypothesis (1), as the path coefficient value (0.301) is significant at a 1 percent (P <0.01) level. So, CE positively influences the LO of graduates. Hypothesis (2) is rejected because the path coefficient value (0.038) is insignificant (t-statistic, 0.592; P> 0.05). Therefore, the findings indicate that CL does not significantly influence the LO of graduates. Hypothesis 3 is supported because the path coefficient of HOT with LO is significant (path coefficient, 0.259; t, 3.649). Figure 3 also shows the PLS structural model output.

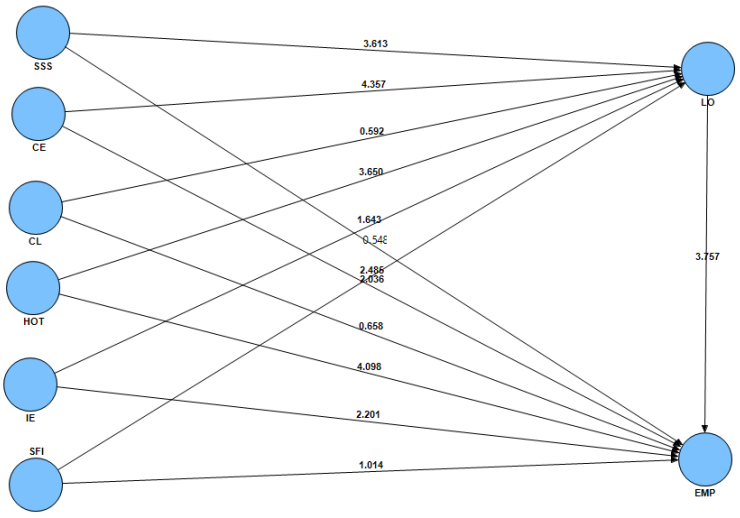

Figure 3: Structural Model output

Again, the findings do not support hypothesis H4 because IE is insignificantly correlated with LO (path coefficient, 0.095; t-statistic, 1.643). Hypothesis five (H5) is also supported since the path coefficient value (0.115) is positive and significant (t-statistic, 2.485; p<0.01). So SFI is an important predictor of the LO of graduates. The findings also support hypothesis six (H6), as the path coefficient value of 0.221 is significant (t-statistics, 3.613; p<0.01). So SSS positively influences the LO of graduates. The findings also support hypothesis seven (H7) since the path coefficient value (0.153) is significant (t, 2.036; p<0.05). Hypothesis eight (H8) is not supported since the path coefficient value (0.040) of CL with EMP is insignificant (t-statistics,

4.097; p<0.000). The findings also support hypothesis nine (H9) since the path coefficient value (0.153) of HOT with EMP is significant (t, 2.036; p<0.05). Hypothesis ten (H10) is also supported as the path coefficient value (0.110) of IE with EMP is significant (t, 2.201; p<0.05). Hypothesis eleven (H11) is rejected due to the negative relationship (path coefficient, -0.058) between SFI and EMP, which is also insignificant (t, 1.013). Hypothesis twelve (H12) is also rejected due to the negative relationship (path coefficient, -0.037) between SSS and EMP, which is insignificant (t, 0.547). Finally, hypothesis thirteen (H13) is supported because the relationship between LO and EMP is positive and significant (path coefficient, 0.329; t, 3.757)

4.4 Mediating Effect Analysis

The present study was designed to test the mediating effect of LO on the relationship between student engagement constructs (higher-order thinking, Course effort, Collaborative learning, student-faculty interaction, Interpersonal engagement, and campus support) and the employability of BOU graduates. Table 5 shows the findings of the mediating effect test.

Table 5: Findings of the mediating effect test

Hypothesized Path	**Direct relationship**	**Indirect relationship**	T-value	P-Value	Mediation
CE->LO->EMP (H14)	0.253	0.100	2.908	0.003	Partial mediation
CL-> LO->EMP (H15)	0.052	0.012	0.624	0.532	No mediation
HOT-> LO->EMP(H16)	0.399	0.084	2.614	0.008	Partial mediation
IE->LO-> EMP (H17)	0.141	0.029	1.387	0.165	mediation
SFI -> LO-> EMP (H18)	0.020	0.038	2.154	0.031	Full mediation
SSS -> LO->EMP(H19)	0.037	0.072	2.632	0.008	Full mediation

First of all, it is seen from Table 5 that the direct effect of CE on EMP is 0.253, while the indirect effect is 0.100 (CE->LO->EMP). On the other hand, the indirect effect is significant at 5% level (P = 0.003; t = 2.908). Therefore, LO mediates the relationship between CE and EMP of BOU graduates. It is a partial mediation because CE significantly influences EMP of BOU graduates. So, hypothesis 14 is supported.

Again, the direct effect of CL on EMP is 0.052, while the indirect effect is 0.012 (CL->LO->EMP). On the other hand, the indirect effect is insignificant (P = 0.624; t = 0.532) and H15 is rejected. So, there is no mediating effect of LO in the relationship between CL and EMP. H16 is supported as the indirect relationship (HOT-> LO->EMP) is significant at 5% level. It is a partial mediation because HOT significantly influences EMP of BOU graduates. H17 is not supported as the indirect relationship (IE->LO-> EMP) is insignificant (P, 0.165; t, 1.387). So, there is no mediating effect of LO in the relationship between IE and EMP. The findings support H18 as the indirect relationship (SFI -> LO -> EMP) is significant at the 5% level. It is a complete mediation because SFI was found to be insignificantly correlated with EMP of BOU graduates. H19 is supported as the indirect (SSS -> LO -> EMP) is significant at a 5% level. It is a complete mediation because SSS was found to be insignificantly correlated with EMP of BOU graduates.

4.5 Qualitative Analysis

4.*5.1 Learning outcomes*

A curriculum must be designed to achieve a set of possible outcomes from the participants of the program. This study employs both qualitative and quantitative approaches to examine the factors relevant to learning outcomes and how they may influence the employability of the students in their future. The results from the factor analysis demonstrate a clear connection between possible learning outcomes and student employability. This section presents the qualitative aspects of the question posed to students to assess the effectiveness of BOU's postgraduate program curriculum. The FGD questionnaire yielded the following outcomes.

In a practical job environment, employees often make managerial decisions. This quality of managers must be built in during the student life. In a postgraduate program, it is expected that the curriculum is designed to achieve such qualities. Regarding the BOU postgraduate programs, it has been identified that students believe the program aligns with their expectations. In line with the findings of factor analysis above, all participants have agreed that the analytical parts of the postgraduate curriculum have been helping them in their current role in their current organization or their business. According to their own words:

> "… competition in the market has been rocketing every day. The ability to think critically and make decisions based on analytical results is essential for being a fast mover in this technology-driven world. The postgraduate program of BOU has taught us how to analyze critically and how to use basic analytical tools."
>
> (Dhaka, CMBA, Stu.: 19)

Despite overwhelming positive feedback from FGD respondents on 'critical thinking and analytical ability', a few students suggested improving the curriculum to enhance the current analytical parts of the syllabus. A larger portion of the curriculum should also encompass practical case studies from the Bangladeshi Market and involve more computerized problems to solve in simulation. In summary, an improvement in the curriculum, both qualitatively and quantitatively, in the area of 'critical thinking and analytical ability' should increase employability in the market. One student mentioned.

> "…we have learned a lot. However, the analytical and real-life problem-solving aspects are not mentioned. It would be beneficial to have learned more about analytical issues and case solving. Above all, real-time data and analysis ability might increase our employability."
>
> (Sylhet, EMBA, Stu.: 7)

Another notable element of learning outcomes for postgraduate students of BOU is the ability to communicate in written and oral form. Results from factor analysis reveal that the curriculum of the postgraduate program has a module for communication. Students confirm that a student's ability to communicate effectively significantly impacts their employability. In a practical job environment, students must communicate effectively and clearly. Students have confirmed that a more reasonable and actionable module may be included in the postgraduate programs. As a participant mentioned-

> "…what if we cannot express ourselves. Maybe we have that knowledge and skill. However, sharing ideas and feelings is essential in the real job field. The question pattern should not be direct. If we can answer conceptual questions, we may have the opportunity to improve our writing skills. Similarly, oral skills should also be measured. A postgraduate syllabus must be developed in a way that students get to learn these skills, which are of most importance in the job field."
>
> (Dhaka, MBA, Stu.: 5)

4.5.2 Student Engagement

According to all respondents, student engagement is the basis of graduate quality development and eventually results in graduate employability. Among the other factors of student engagement, participants are mostly enthusiastic about interaction among the students in a class and interaction between students and faculty members. All

participants have agreed that student engagement significantly impacts students' learning outcomes as well as their employability. Particularly, how comfortable students are in asking questions in class and their connections with both faculty members and peer groups are important for the quality of student engagement. Some students have reported that a friendly relationship with the faculty members helped them to engage with the course in the postgraduate program of BOU. As per the students' words:

> "…..The quality of student-faculty interaction is one kind of motivation for students. Some students want to learn from the teachers. However, if they find the interaction complex or sophisticated, they hold back in asking the question. Moreover, the reception of students for a course mostly depends on the ability of a faculty member to engage his/her students with the topic."
>
> (Sylhet, MBA, Stu.:12)

> "…. In some cases, students' interaction with each other is also significant. Students' team spirit and ability to work together for problem-solving help them engage more in class than before. If student engagement is an objective, improving interaction quality is essential. A cohesive interaction among the students boosts students' ability to engage in the class."
>
> (Dhaka, EMBA, Stu.:23)

Apart from the quality of faculty, students and curriculum, students have opined about the regional center environment. Participants are found to be optimistic about the significant impact of a regional center of BOU on student engagement. The facilities provided now would have a greater impact on the students if the service quality were improved. The regional centers should be improved, according to students. All participants have reported a positive impact of a well-designed regional study center on student engagement. Students have reported their complaints about the current facilities and want to see that in future their observations are restored by the competent authority. One participant has reported-

> "…the environment of a study center has a great influence on students. A well-equipped facility always positively influences students to be engaged with the classes and with the lesson. BOU has clear limitations in providing well-equipped classrooms, especially in the regional centers."
>
> (Chittagong, MBA, Stu.: 20)

4.5.3 Employability

Employability is an outcome of several inputs, including student engagement and learning outcomes. Among many inputs, employability itself depends on three major issues: the ability of the candidate to participate in teamwork either as the manager or a team member; whether the candidate has direct family responsibility for any dependent, elders or others; and the competition exists in the job market to get a reasonable and accepted job. These conditions are not dependent on or linked to external factors, such as student engagement or learning outcomes. These inherent qualities of employability not only emphasize the quality of the job market but also the internal quality of a candidate for being suitable for the job. For example, one student noted that a program's results and knowledge alone cannot equip a candidate with the skills to work effectively in a team or lead a team. In the respondent's words-

> "….. I have learned a few theories and so many examples in the textbook of the organizational behaviour course, but did not realize that dealing with people would be so hard and complicated in a team."
>
> (Sylhet, CMBA, Stu:23)

The urgency of employability increases when a candidate is burdened with responsibilities for underage or overaged family members. This burden complicates the nature of employability, as it hinders the candidate's ability to explore employment opportunities. Studies have shown that family burden hinders a candidate's ability to explore opportunities and leads them to accept any job that can be obtained quickly or easily. Candidates also fear switching jobs if there is a family burden. Students value security over opportunities. The result from our FGD also depicts the same result. All candidates have agreed that employability is negatively affected by family burden. One of the candidates has stated that,

> "…More than my knowledge and skill, which I have achieved from my MBA program, my family responsibilities have forced me to get a job as quickly as possible."
>
> (Chittagong, MBA, Stu: 14)

Above all, the existing competition in the job market significantly impacts a candidate's employability and ability to grow in their career. Besides the advantages in competition in the job market, the worst part always affects the candidates at the entry level and their growth potential afterward. Similar to our factor analysis, all

participating members agreed that the existing level of job compensation negatively impacts the employability of BOU postgraduates. One participant has rightly stated that,

> "…. How much I have learned from the program can only be traced once I get appointed. However, in Bangladesh, the number of candidates is always much higher than the number of opportunities. Over to that, nepotism and corruption have always had a role in Bangladesh. To me, I do not blame the program alone. The existing job market has failed to provide us all with employment. Alternatively, the current education system is not well-positioned to target the actual number of available job opportunities accurately. A total correction in the process, both in the policy making for curriculum development as well as market analysis, is the only solution."
>
> (Dhaka, CMBA, Stu: 21)

5. Conclusions, Limitations and Recommendations

The findings of this study reveal several potential research fronts. Future research should focus on the key aspects of underdeveloped areas in graduate employability and outcome-based learning. Among others, the key areas of future research agendas are longitudinal research on entrepreneurship pedagogy; post-graduation (alums) feedback; a focus on entrepreneurship rather than job placement; cross-sectional (interdisciplinary) comparisons instead of small focus group studies and case studies; the development of more practical and integrated assessment and reward systems for evaluating learning outcomes; active participation of employers in curriculum design; a research-based teaching and learning environment; last but not least, student satisfaction. Overall, work ethics, sustainable education and moral perspective of higher education have a potential research gap.

The limitations of this study are threefold. First, the unexpected COVID-19 lockdown has abruptly derailed our plan of action to reach the targeted students and respondents due to the complete shutdown of the entire country. After waiting for almost 18 months, we had to collect the data through online means from the targeted respondents. However, after the lockdown conditions relaxed, we managed to obtain qualitative responses from participants in focus group discussions.

Second, the time constraint of this project was a significant concern for designing, collecting, accommodating, validating, and finally summarizing the results of the respondents. Hence, future research may consider providing more time flexibility for such rigorous work. In addition to time constraints, financial constraints may also be considered in this case. Since this study is a national issue and respondents have been selected nationwide, an additional budget would be more realistic in similar projects.

Last but not least, the scope of this research may also be broadened in future studies. Due to time and money constraints, as previously discussed, the scope of this study has been shortened, with only four postgraduate programs being purposively selected. This narrowing down of scope might not have hampered the robustness of this study, yet a complete picture is missing. The following recommendations may be proposed for future studies:

- Regularly, the academic curriculum should be updated based on the feedback of the employers and alums.
- Occasionally, there should be some practical and physical sessions with industry practitioners so that students can get an opportunity to engage in real-life interactions with the prospective employers before the real market placements.
- In addition to classroom sessions, industry practitioners may also teach specific lectures as part of the existing syllabus to ensure alignment with current job market practices.
- Industry-academia collaboration can be ensured and practiced through case studies and problem-solving projects.
- Some cocurricular activities, such as students' clubs or societies, may be introduced alongside academic degrees to provide students with soft skills in addition to their academic knowledge—for instance, communication skills, basic computer skills and most importantly, negotiation skills.
- The existing curriculum may be enriched with more research work and creative learning modules.
- Active alums and their operation are essential for gathering in-house news on the capacity and appropriateness of a program's existing curriculum.
- Last but not least, additional care in the continuous assessment (i.e., project-based assignment, internship, class tests, quizzes, presentations, etc.) of the students may widen the scope of student learning and engagement environment.

The outcome-based learning and graduate employability are progressing to meet the challenges of 21st-century higher education. Future research will likely improve the strength of identifying employer needs more accurately and transmitting them to students through an upgraded curriculum and outcome-based learning initiatives. The following practical implications may be achieved from the results of this study:

- Higher education providers would establish an active partnership with the relevant graduate market or industry. This partnership aims to ensure job placement, update curricula to achieve expected graduate attributes, and provide regular updates from host employers on students who have received outcome-based learning.
- Universities would consider evaluating and reassessing their existing approach to graduate assessment. Since a curriculum alone cannot ensure outcome-based learning, unjustified assessment quality may give false hope to the students as well as the stakeholders.
- Universities in developing countries would tailor their curriculum to meet their own specific needs. Just copying and pasting an improved curriculum would not be a solution for any different contextual setting.
- The government must collectively examine the higher education curriculum in the country and stabilize economic factors to meet the expected level of employability through outcome-based learning.
- Finally, students should play their actual role in this context. Self-motivation for being a readymade worker for the economy should enrich their graduate skills more than an outcome-based learning system can expect.

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