

Career Opportunities and Challenges of Economics Graduates of Bangladesh University of Professionals: A Critical Analysis

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ABSTRACT

Universities groom up graduates with very specific and detail knowledge. In the fastest growing world specialization is required to serve the purpose. University graduates with tremendous knowledge and efficiency can serve the nation with their full potential. Labor market demand for skilled labor who can serve their purpose. Bangladesh University of Professionals, a public university of Bangladesh is very focused about the nurture of graduate to make them potential enough for their next stage of life. Instead of data availability constrain it was an initiative to understand the employability phenomenon of newly graduate form economics department of Bangladesh University of Professionals we studied over 200 graduates through Probit analysis. This paper represented that gender, higher secondary background, result of B.S.S, mother's education, soft skills and student operated job during student life were the most influencing factors for the employability of a fresh graduate of economics department. The study result shows that gender, higher secondary background, B.S.S. result, mother's education, soft skills, and student life job during study has marginal effect on employability. Analysis results will be helpful for the students knowing their employability opportunities and challenges and for the department to take initiatives and planning for the future.

Keywords: Education, Skills, Employment, Opportunities, Challenges, Marginal, Graduates

INTRODUCTION

The goal of tertiary level or higher education is to produce nation's finest talents as graduates in such a way where they dedicatedly contribute their intellectual thoughts and practical skills into nation's productive sectors and at the same time, they are best fitted to compete in international arena too. But to produce these high-quality students, the educational institutions must have to be dynamic and keep pace with the fast-growing world (Sumanasiri et al, 2015). But sadly, in a third world country like Bangladesh, there are infinite limitations in creating potential graduates that are well equipped with all the requirements that are necessary for the job market. Firstly, Bangladesh possesses huge population comparing to very limited job vacancies or job opportunities. And secondly, the fresh graduates that pass on from the universities mostly lack in practical skills required for job market. They only focus on theory-based study that were outdated in comparison to modern education and technological attributes. One of the main characteristics of a modern educational institution is to keep pace with the world by ensuring advanced education system with quality research and development activities and technical knowledge. Moreover, they should always keep an eye by conducting studies on their graduates' employment status, current job market condition, skill requirement in the job market by the employers and overall determinant factors for employment (Tomlinson, 2007). Through this research, the university authorities should modify their education system and curriculum accordingly and bring effective policy to control any sort of fluctuation or instability in quality education (Finch, 2013). But unfortunately, in Bangladesh, let alone mediocre universities, the reputed public universities don't arrange these sorts of research activities to determine the current job placement

conditions of their graduates.

The main goal of this paper is to determine the latest trend of job placement of our fresh graduates through some determinant factors such as family income, parents' education (Cotton, 1993), whether the students depend on parents financially or not etc. The paper will also try to figure out the job market preferences of the fresh graduates of Economics major. There are many graduates who start taking job-exam preparation and in general, students need some time to get themselves ready overall for labor market, in that case this duration may be considered as transition period. This paper will study the determinant factors of job placement of Economics graduates in terms of Bangladesh University of Professionals (BUP). As there are no such research or monitoring conducted in analyzing the job-placement scenario of the fresh graduates of our country's universities, this study on BUP may help the policymakers or university authorities to put the study on their graduated students not only in Economics Department but also all the other departments as well so that they may find their determinant factors to understand the job-placement condition of the graduates. Overall, this paper has a broad objective that is finding out the demographic characteristics that determine the employment of the fresh graduates such family income, parents' education, job preferences of graduates, residence of the students during BSS and MSS.

Due to increase in Economic growth and development, per capita income has witnessed increment considering both monetary and real perspective. Therefore, this leads to the rise of education years or average duration of schooling. But it has not made that much sense as the unemployment rate has risen severely according to the statistical data. This happened basically due to technological advancement. The job sector is not growing at a similar rate as the graduate number is growing in our country. In other words, we can say job generation process is not increasing at expected level. Government can take some necessary steps to improve the vocational training in Bangladesh. This will significantly increase the job opportunity of fresh graduates which in turn can reduce the unemployment rate in our country.

Due to digitalization, Artificial Intelligence (AI) and Automation has adversely affected the employment of human (Vermeulen, et al., 2018). Although Artificial Intelligence is so far more popular in technologically advanced and developed countries, however in Bangladesh, automation and AI Technology has not yet flourished. But with the rapid acceleration of Technology, automation may soon capture the industries of the whole world where human assistance may not get reduced to some extent. So, the better solution to this issue is to equip the fresh graduated employees with sufficient and effective skills required for job market in this competitive society. In this regard, to increase the rate of employment, proper research is needed to conduct by respective authorities of different universities of Bangladesh to find out the determinant factors of job placement of their graduates and as well as to fill the gap or mismatch between job expectation of the fresh graduates and the job criteria of the recruiters. That is the main concept of this paper.

LITERATURE REVIEW

The importance of studying the job-placement scenario of the fresh graduates is equivalent to the findings of the causes of the graduates' being unemployed. The critical issue of unemployment has certain important reasons which are unavoidable. One of the main reasons of unemployment of our fresh graduates is the lack of caliber in the field of technical skills which are required in the practical life job market. Due to this lacking employer are compelled to hire foreign employees. According to the report of bdnews24 in 2015 following the quotations of finance minister, thousands of reputed companies recruit foreign potential employees that causes an amount of \$4 billion outflow every year.

Apart from technical skills, the fresh graduates of our country lack in various generic skills as well. These skills require effective communication, problem solving, curiosity, patience, flexibility, purpose, persistence, resilience, courage, creativity, multitasking, working under pressure, working as a team,

managerial skills (Tomlinson, 2007) and so on. Another important gap that is found in a job candidate is inefficiency in the international language – “English” (Clement & Murugavel, 2015). Many talented individuals lose their place in the labor market just because of lagging behind in English because all the top-rated companies offer jobs that require proficiency in English on the subject of speaking, reading and writing. In the field of tertiary education, our educational institutions show their limitations through providing knowledge based mainly on theoretical perspective. Therefore, our graduates fail to equip themselves with practical knowledge such as computer skills, machinery skills etc. As a result, the students can’t convert their theoretical based knowledge into practical job field. Moreover, teachers’ proficiency, experience and quality (Uddin, 2021) also raise questions in the institutions that provide higher education.

Most of the teachers lack in in-dept knowledge as well as the curriculum for tertiary education has some leakages, the syllabus has no real or practical interaction with the employers’ demand in job markets. In spite of several drawbacks, Bangladesh accelerated the sustainability of economic growth and reached the place of lower-middle income country according to World Bank Status. So, with this stability in economic growth and national income along with the goal of achieving a higher GDP growth rate, it is high time for the country to invest in human capital to supply skilled and quality graduates which can compete and make noteworthy contribution in job market. According to the report of Economic Intelligence Unit (EIU) in 2014, Bangladesh has a burden of 47% unemployed graduates in its land and Bangladesh Institute of Development Studies (BIDS) estimated through their survey that, around 34% fresh graduates have secured first class in their bachelor and master’s degrees and now are unemployed. This is a clear sign that, Bangladeshi higher educational institutions are gradually failing to provide quality education to their students. Only result based education without any effective skills and practical knowledge doesn’t make any feasible development for the graduates to get jobs in the labor market. According to Japanese labor market scenario, it is highlighted that top ranked universities in the world promotes reputed job placement for the fresh graduates in comparison to those of lower ranked universities. It’s very simple to understand because top-ranked universities always have a positive pace with practical world and their quality education and skill providing criteria match effectively with the real-life job sectors. From the employers’ point of view, to recruit quality employees, job market signaling is an essential part for them. One of the determinant factors to assess candidates properly is internship. All the developed countries and their reputed universities require internships as part of their curriculum. But in Bangladesh, still not all the tertiary educational institutions have created such opportunities for the graduates. Internship programs have benefits for both the candidates and employers. Through internships, the recruiters may easily assess a candidate’s caliber and skills and through this they can easily measure how far the candidate can go in their respective organizations.

On the other hand, a job candidate can get efficient job-experience through working under the senior professionals. Through internship, he or she can equip with quality training that can amplify the proper working aptitude both in terms of technical skills and generic skills necessary for working environment. The world’s best universities not only provide quality education towards their students but they also continue their research work regarding the employment status of their fresh graduates and modify their teaching service accordingly if any fluctuation occurs in the employment scenario of their students. But sadly, in Bangladesh, such type of research and development activities in the country’s universities are very rare. According to Smith (2000),” socio economic class” plays a very crucial part in the case of job placement of the graduates. His study found that, the graduates with higher socio-economic class possess 2% more probability of getting employed than other social classes within first six months after their graduation. The unemployment rate in Bangladesh is huge comparing to the number of graduates get passed on every year. Another reason that is very common in Bangladesh in the employment scenario is that a noticeable percentage of graduates take preparations for higher education such as masters or PHD in abroad; or take preparations for job exams most importantly for BCS. They remain unemployed for the time being because having higher education or BCS exam is a long-term procedure for getting recruited. This duration for the fresh graduates is known as transition period. Our country also lags behind in creative field in the career

placement. The entrepreneurship field is still not that much popular field in our country and there lies a social taboo that entrepreneurship doesn't possess that much dignity in our socio-economic culture where a government job holds infinite amount of social dignity, and it doesn't make any sense. According to the research conducted by MD.

Azim and AK Ziauddin Ahmed from World University of Bangladesh, it is found that only 8% of the total employees are taken from the internship program provided by them. So, it is also a clear indication that the employers don't find that desired caliber within an intern and thus the recruitment rate from internship is quite low. Also, this directly blames the fault education system of our universities where quality education with the association of skills is totally absent which is a big reason to worry. The effect of unemployment hits hard to the graduates especially from the psychological perspective. When the graduates can't find their desired jobs or their job expectation mismatches with the job criteria, they get severe depressed, anxiety arises upon with sheer inferiority complex. Rashid (2019) explained in his study that lobbying, corruption, gap between job expectation and job criteria, small arena of job market, ineffective and faulty academic curriculum, political domination in the recruitment procedure are some of the characteristics that hamper the social sciences students in building their career. According to the research findings conducted by Schaufeli and Yperen (1992), both men and women are triggered by psychological distress if they become unemployed for straight two years after their graduation. Neazy (2019) almost explained the similar things mentioned above and that is skill difference occurs in the technical and management sectors, inefficiency in the policy placement and poor skill generation leads to unemployment that automatically brings rise of depression. Two respected authors Abul Kalam Azad and Sheikh Jafar Emran tried to estimate on "Ending High Starting High Job Placement of Economics Graduates of Dhaka University" the recent employment and job statistics of Dhaka university graduates from economics department. In all well functioned country educational institutions supply fresh graduates as skilled labor. But in Bangladesh there exists information asymmetry between job market and educational institutions. The paper focuses on the relationship between job findings and some factors influencing the dependent variable such as CGPA, education level, gender discrimination, family income, parent's education etc. This paper also gave a special importance on the transition period used by a graduate to prepare himself for job market after his/her graduation. It is obvious that if the information asymmetry between job sector and educational institutions is low, the transition period is lower for those who graduate from these institutions. While preparing this paper, Abul Kalam Azad, and Sheikh Jafar Emran reviewed many country's' job market situations and they found some exciting factors that have effects on job market for fresh graduates. Those are University department ranking has a positive correlation with the job placement of graduates, Internship opportunity from university is one of the most important indicators for job market success. Because internship inspires the graduates to attain more experiences which in turn help them at higher levels of placement success, Employment opportunity is also determined by academic performances of graduates while recommendation from university is also a significant tool, soft skills of fresh graduates play as an important factor of employability (Finch, 2013). Overall results say that education level and CGPA, family income, parent's education are most influential factors which works in favor of employment of a graduate. A report "Reform is Required in Education System of Bangladesh" which was prepared by MD. Joynal Abdin, stated that, Bangladesh is an ideal business place for many foreign business companies because of its geographical location. In addition to that, the government of Bangladesh is encouraging local and foreign investment for more economic growth. But in this process, a critical barrier is to develop the young graduates with professional skills. His findings says that about 11 million of young Bangladeshi's are doing nothing but seating idle. Every year about 2.2 million new graduates are entering job market, but they are not qualified enough. Because of not having efficient skills, employers are hiring foreign labor. The researcher found that about half million foreigners are earning about USD 5 billion whereas about 8 million local workers are earning USD 5 billion. This shows local workers are earning less than foreigners in our own country and this is just because our labor is unskilled. So, our education system and universities should try to improve the whole graduation system in order to make skillful and effective fresh graduates. When our graduates will be efficient and when

everyone perform well in his respective sector then the economic development of Bangladesh will be a miracle for the entire world.

After mentioning the crucial research findings studied by researchers and think tanks, the general solution that can be stated that it's basically a mutual modification to be conducted by both the educational institutions and employers of the job market. At one side, the authorities of tertiary educational institutions should remove the outdated theory based education and bring modern technical skill based education system that can collaborate both the theory and practical knowledge and thus be able to create efficient and skilled fresh graduates whom the employers of labor market can consider as skilled employees and recruit them. In short, the educational institutions should maintain academia- industry collaboration so that research-development, creating quality teachers can be created and at the same time skilled employees in job sectors may emerge as well. On the other hand, the employers in the job field must enhance more internship opportunities along with assurance of modern training facilities so that fresh graduates may get incentives to grab their desired internship and develop their caliber.

METHODOLOGY

Data and Variables

As we are intending to find out the prime influencing factors that are liable for the chance of getting employed using the primary data which will be surveyed. The study has been concentrated on three batches of students who are graduated recently from Economics Department of Bangladesh University of professionals. In this process the chosen three batches of the survey have completed the graduation in 2018 and in 2019 respectively. Thereafter we have taken the most recent batch which completed graduation in 2020. The final data contains the mentioned three graduated batches. We are expecting to collect the data of 65 graduates out of 80 graduates from batch 2015, which is about 81.25% representation from this batch. Also, we are expecting to collect the data of 65 graduates out of 78 graduates from batch 2016, which is about 83.33% representation from this batch. Finally, we are expecting to collect the data of 70 graduates out of 90 graduates from batch 2017, which is about 77.77% representation from this batch.

In this study Employment variable is the dependent variable in so we are expecting to use to analyze our data by Probit analysis. The dependent variable consists of six different categories in the survey method. Firstly those graduates who are currently searching for a job are basically unemployed. Secondly, the graduates who are engaged in somewhere are basically employed. Thirdly, the graduates who are employed at their own business company are also counted as employed. Fourthly, there are some graduates who are not engaged in any work also they are not preparing for job either, thus we have dropped them from the data. Fifthly, the graduates who are preparing for higher studies or studying abroad are considered as employed because graduation and post-graduation are considered as full-time job worldwide. Finally, the graduates who are taking preparation and by the same time having tutorship are literally unemployed. Because having tutorship is not a certified job. These six categories of student have united into two categories employed and unemployed which is considered as the binary variable of employment. In the case of residential status, we converted the outcome into binary number. Those who studied from own housing facilities are regarded as 1 whereas, those who studied from rented house, BUP hall, student's mess are regarded as 0. This process is applicable for all categories. We have counted female graduates as 1 whereas, the male graduates are counted as 0. Those who had science in their HSC background, are regarded as 1 whereas, those who had business or humanities are regarded as 0. As we have counted parent's education, here if parents have education at least honor's or above, we counted them as 1 whereas, if parents have education level below honor's, we regarded them as 0. Those who operated internship after graduation are regarded as 0 whereas, those who did not operated any internship, are regarded as 1. If a graduate has soft-skills, we regarded their response as 0 whereas, if graduates do not have soft-skills, we regarded them as 1.

Finally, those who operated part time job or tuition during their study life, are regarded as 0 whereas if they did not operate any job, we regarded them as 1.

Econometric model

The Probit model organizing the binary variable as the conditional, or dependent variable has been derived to describe the determinants that help a graduate to be employed (Finch, 2013). The probability of transforming the employment status from unemployed to employed is basically described by the probit model. To describe the deviation in probability of conditional variable, the Probit model is basically used due to some unavoidable conditions of Linear Probability Model and Logit Model.

$$Y = \mu + \beta Z + e$$

The dichotomous conditional variable y exhibits the employment condition of Economics graduate. The chosen model is planned to search out the determinants of employability. The formation of the probit model has been allotted to find out the probability of determinants for employment deriving from the normal CDF (Cumulative Distribution Function). One of the CDFs is logistic cumulative distribution function. It can be illustrated as

$P = E(Y = 1|Z) = 1 / \{1 + e^{-(\mu + \beta Z)}\}$ According to the normal CDF, the Probit model (Gujarati, 2009) can be estimated as

$$P = P(Y = 1|Z) = P(N \leq \mu + \beta Z) = F(\mu + \beta Z)$$

Where Y is the dichotomous dependent variable representing 1 when a graduate is employed otherwise 0. P shows the chance of being employed given the influencing variables Z for example income, CGPA of BSS degree, CGPA of MSS degree, education of parents etc. and N is normally distributed with mean 0 and variance i.e., σ^2 i.e., $N \sim N(0, \sigma^2)$. To search out the marginal effect that is the probability due to change in explanatory variables. To get the marginal effect we must take derivative of the above- mentioned function. After taking derivative we get

$$\frac{dP_i}{dZ_i} = (\mu + \beta Z)\beta_i$$

where $f(\mu + \beta Z)$ is the standard normal probability density function estimated at $\mu + \beta Z$ which is normally distributed with mean 0 and variance 1. To estimate the above Probit model, marginal effect and all the statistical analysis we used STATA13 & STATA15SE. The impacts of any variable on the estimated probability $P(Y|Z)$ are interpreted as the Marginal Effects at the Means. Since the variables can be categorized as binary variable or discrete variable, interpretation on the predicted probability will be several based on their forms. Binary variables provide the change in predicted probability from a discrete deviation while the continuous variables incorporate the deviation in predicted possibility of dichotomous conditional variables from an instantaneous rate of deviation. In case of binary conditional variables for example, Marginal Effects at the Means can be explained as the deviation in expected probability as the change in binary independent variables from 0 to 1 or 1 to 0. The Marginal Effects at the Means model for binary independent variable can be depicted as

$$Zk = \Pr(Y = 1|Z, Zk = 1) - \Pr(Y = 1|Z, Zk = 0) \dots \dots (\text{MEMs for Discrete Variable})$$

On the other hand, as described above, marginal effect exhibits the change in the predicted probability from an approximate deviation in the continuous variable, Zk which shows instantaneous rate of change. But these Marginal Effects at the Means for continuous variables may or may not be close to the effect on $P(Y=1)$ of a one unit increase in Zk . Because change in independent variable can occur at different level. We do not suppose same deviation in probability of employment due to deviation in a continuous variable at very minimum level and at very high level. We have obtained similar non-linear relationship between probability

of employment and B.S.S. CGPA. This is also true in case of probability of employment and M.S.S. CGPA. Marginal effects are calculated as following

$$Zk = \lim ([Pr (Y = 1|Z, Z + \Delta Zk) - Pr (Y = 1|Z, Zk)] / \Delta Zk) \text{ as } \Delta Zk \text{ gets closer to } 0 \dots \dots \dots$$

(MEMs for Continuous Variable)

The mentioned above equation for continuous variables describes the estimated probability of continuous independent variables. More particularly, the impact on estimated probability of Zk . Therefore, both theoretical and empirical methodology provide us non-linear relationship between variables. For example, change in probability of employment due to change in CGPA from 2.50 to 3.50 will not be similar when CGPA changes from 3.50 to 4.00. Therefore, both theoretically and empirically we anticipate a non-linear relationship between the variables.

Findings from the questionnaire

Residential Information

In the purpose of providing more time for study and research residential facilities for students are proposed. Bangladesh University of Professionals, one of the emerging public university of the country grabs attention many students from different districts of the country. BUP has been selecting candidates through different admission test where subjects are being provided according to merit basis. From the beginning, Department of Economics has been selecting top ranked students. Those students come from distant and different places. Therefore, the students who do not have any residential facilities at Dhaka, stay in university hall or student mess or rented house and also in the relative’s house. There are some students who have been living in their own house or Government quarters.

Residential Status of Students

Residential Status	Percentage
Own House	41.35%
Rented House	33.65%
BUP Hall	15.38%
Students’ Mess	7.69%
Option Out	1.92%

In the data we got almost 99% response from the respondents. Among them, most of the students stay in own house followed by rented house and BUP Hall. About 41.35% students used to live in own house. About 33.65% students used to live in rented house and 15.38% students used to live in BUP Hall. The

percentage of students who lived in students' mess is very low compared to mentioned housing facilities. About 1.92% students did not choose any option which says that they have been accommodated in some other ways. Those who lived in rented house or BUP Hall are the students who came from outside of Dhaka City. This also implies that most of the students of Economics Department represents middle class families of the country.

Current Status of the Fresh Graduates

Current Status	Percentage
Employed	57.14%
Preparing for Government Job	18.09%
Searching for Job	8.57%
Doing Masters	2.85%
Unemployed	8.57%
No response	4.76%

The motive of educational institution is to prepare their graduates with designed knowledge and supply well-skilled labors for the academia and industry. But many institutions are preparing graduates without that types of knowledge about what exactly their fresh graduates are doing. Therefore, we need to know the status of employment of the fresh graduates. Among the 105 respondents 57.14% are currently employed in different institutions or organizations. In our sample about 2.85% are attending in different institutions across the world for further education. Unemployment rate for economics graduates is 8.57%. Those unemployed are either doing tuition or searching for job and their percentage is 17.14%. They either do not get any job or they are in the process of getting one. Some graduates who are doing tuition and they consider themselves as employed but in our paper, we consider them as unemployed. So overall, there is a high percentage of unemployment since some graduates prefer Government jobs which requires a longer period. The process of recruitment is lengthy than any other job.

B.S.S. and M.S.S. results according to Residence

Residential Information	B.S.S. CGPA	M.S.S. CGPA
Own House	3.46	3.65
Rented House	3.39	3.64
Hall	3.46	3.53
Student Mess	3.25	3.68
Average CGPA	3.53	3.55
Sample	103	63

The students who lived in student mess had the lowest average CGPA of 3.25 among all. The students who lived in own house or in hall have the highest average CGPA of 3.46. The students who lived in rented house had a moderate average CGPA of 3.46. Those, who completed MSS, among them who lived in student mess had the highest average CGPA. The students who completed their master's degree from Hall had the lowest CGPA of 3.53. Those who lived in own house and rented house had an average CGPA of 3.65 and 3.64 respectively.

Employment Status According to Residence

Residential Status	Batch – 2015		Batch – 2016		Batch – 2017		Pool	
	Employed	Unemployed	Employed	Unemployed	Employed	Unemployed	Employed	Unemployed
Own House	66.67%	33.33%	54.55%	45.45%	43.75%	56.25%	53.49%	46.51%
Rented House	88.89%	11.11%	75%	25%	50%	50%	68.57%	31.43%
Hall	40%	60%	50%	50%	60%	40%	50%	50%
Student Mess	75%	25%	100%	0%	100%	0%	87.5%	12.5%
Option Out	————	————	————	————	0%	100%	50%	50%
Overall	69.7%	30.3%	64.71%	35.29%	64.86%	35.14%	60%	40%

This table represents the employment status separately for Batch 2015, 2016, 2017 as well as pooled data. For the batch of 2015, those who lived in own house arrangements, 66.67% of them are employed now and rest 33.33% are unemployed. Those who are living in own housing facilities, obtained the highest average CGPA and a good amount among them are employed. We see quite similar result for batch 15 for those students who lived in rented house. Those students who lived in student mess are mostly employed. But those who lived in BUP Hall are unemployed at higher percentages. Overall, 69.7% students of batch 15 are now employed. In the case of batch 16, those who lived in student mess are all employed. About 75% students of batch 16 are employed who lived in rented house. About 50% students who lived in BUP Hall are unemployed. Overall, about 64.71% students of batch 16 are employed. If we look at batch 17, we will see around 64.86% students of them are employed. Even though the students who lived in student mess obtained lowest CGPA in BSS and highest CGPA in MSS. Around 87.5% of them are employed. This high rate of employment may occur because the students who lived in student mess normally have more contact with their seniors in different sectors. Those who lived in BUP Hall had average CGPA of 3.46 which is the highest yet about 50% of them are employed. Another category of highest BSS CGPA is those who lived in own house but only 53.49% among them are employed and their MSS CGPA is quite good comparing to other categories.

CGPA in various exams

Students’ academic grade is generally reflected by their academic performance which is measured by a student’s obtained Grade Point Average (GPA) or Cumulative Grade Point Average (CGPA). GPA/CGPA is tabled below:

GPA and CGPA of Economics graduates of batch 2015,2016 and 2017 in various exams

Background	SSC (out of 5.00)	HSC (out of 5.00)	B.S.S (out of 4.00)	M.S.S (out of 4.00)
Science	4.93	4.62	3.66	3.65
Humanities	4.73	4.89	3.41	3.42
Business Studies	4.83	4.78	3.54	3.59
All groups	4.83	4.76	3.53	3.55

The students who admitted in Economics having average GPA of 4.83(out of 5.00) at SSC level average GPA of 4.76 (out of 5.00) at HSC level. Here we got that, science students have highest mean GPA in SSC

exam and humanities students have highest mean GPA in HSC exam. In case of BSS and MSS results, the student from science dominates students from their counterparts. Average CGPA in BSS for the students from science background was 3.66(out of 4.00) and for the same group of science background average CGPA in MSS was 3.45 (out of 4.00). The average CGPA of BSS in Economics for our sample is 3.53 (out of 4.00). Their average CGPA in MSS was 3.55. Their average MSS result slight improvement over their BSS result. Mean CGPA of the students from Humanities background is the lowest among three backgrounds in BSS degree. In our study, mean CGPA in MSS degree is higher than BSS degree for every batch we have incorporated. This may occur due to short duration of MSS program in which students get serious usually.

Results of Economics graduates on basis of gender

Gender	SSC	HSC	B.S.S.	M.S.S.
Male	4.71	4.76	3.45	3.48
Female	4.82	4.81	3.51	3.56

Source: Author’s Calculation

Academic results of girls are better in all exams which reflects the fact that girls outperform boys in every departmental exam. However, unfortunately females are not better placed in terms of job than male. This is perhaps due to either low career orientation among girls after their graduation or also facing family barriers regarding participation of female persons in job market. By participating in household chores and child managing remain sole female responsibility in many developing countries like Bangladesh. Girls from science background have performed better in terms of academic results for three batches in Bangladesh University of Professionals. This is since students from science background get some extra advantage in Economics due to their previous mathematical knowledge that they achieved from science background. In terms of college location, majority of the students from the three batches are Dhaka Based.

Employment Scenario According to B.S.S and M.S.S results

	CGPA>= 3.00 in both B.S.S & M.S.S.	CGPA>=3.25 in both B.S.S & M.S.S.	CGPA>=3.50 in both B.S.S & M.S.S.	CGPA>= 3.75 in both B.S.S & M.S.S.
Employed (%)	59.14	58.90	60.78	66.67
Unemployed (%)	40.86	41.10	39.22	33.33

This table exhibits that CGPA is much more dominant signal in case of obtaining a job. Academic achievement is always a dominant factor related with employment success. Those who offers job in the job market normally use the academic grade as dependable signal to offer job for the well-deserved candidates. The higher the grade, the higher the chance of a graduate to be employed. Our sample states that 66.67% of our graduates who are having CGPA higher than 3.75 are employed. As the CGPA lowers, the percentage of unemployed increases as well. Those who are having CGPA higher than 3.00 are employed at about 59.14%. This is lower than the previous segment. As the result increases the percentage of employment increases as well. So, overall employment percentage is higher for those who have at least a CGPA of 3.00 or more.

Table: Probit Analysis:

Explanatory Variable	Description	Regression Coefficient (R.U) (p-value)	Regression 2 Excluding BSS Coefficient (R.U) (p-value)	Regression 3 Excluding MSS Coefficient (R.U) (p-value)
Residence	Own house = 1	-0.542 (0.5)	-.594 (.473)	-0.061(.325)
	Otherwise = 0	(0.27)	(.209)	(0.850)
Gender	Female = 1	1.15(0.590)	.784(.556)	0.665(.332)
	Male = 0	(0.05)*	(.166)	(0.045)**
HSC Background	Science = 1	-1.21 (0.648)	-1.44(.605)	-.273(.332)
	Otherwise = 0	(0.062)*	(.017)**	(.410)
BSS Result	Out of 4	3.48 (2.0)		.136(.442)
		(0.082) *		(.757)
MSS Result	Out of 4	-1.55 (1.74)	1.43(1.06)	
		(0.373)	(.176)	
Father's Education	Hons/Above = 1	-.906 (0.872)	.628(.858)	-.877(.537)
	Otherwise = 0	(0.299)	(.464)	(.102)
Mother's Education	Hons/Above = 1	-0.982 (0.523)	-1.08(.490)	.058(.343)
	Otherwise = 0	(0.061)*	(.028)**	(.864)
Internship	No = 1	-.321 (0.550)	.202(.471)	.250(.313)
	Yes = 0	(0.559)	(.667)	(.424)
Soft Skills	No = 1	0.76 (.468)	.660(.427)	.467(.318)
	Yes = 0	(0.104)	(.123)	(.143)

Our regression result shows that gender, higher secondary certificate background, bachelor's degree result, mother's education and job in student life are the most significant factors those contributed to the odd ratio in favor of employment of graduates of the department of economics. The master's degree is not playing so significant role as the result of bachelor's degree. We can say that gender and students. operated job are two of the most significant factors as they are significant at both 5% and 10% level of significance. Higher secondary background, mother's education and bachelor's degree result all are significant at 10% level of significance. If we look at regression 2 where we are getting mother's education and higher secondary background and job operated during student life are three significant factors that contribute to the odd ratio in favor of employability. Mother's education is significant because it plays an important role in graduate's employment. Here, the negative coefficient says that the mother having less than honor's level education have more influence on students' employability than the mother who has education level honor's or higher. This is because higher educated mothers are less likely to provide sufficient time to their children from childhood they might engaged in institutional activity. Those mother who have less education are generally

housewife who can pay more attention to their children’s education. Another important factor is the higher secondary background. Those who has science in their background are less likely to get employed among our graduates. This can be since the job sector of Bangladesh is now demanding more students from business background. When it comes to the sector of corporate job market, employers always prefer business students over other students. We can also see that at regression 2 where we obtain the outcome by excluding B.S.S. degree, the HSC background is still significant at both 5% and 10% level of significance.

On another part we can say that student operated job at under-graduation level is playing a significant role at 5% and 10% level of significance. This can be the reason because when a student operates part time job, he/she can easily create contacts with officials about his possible joining in that company after successful graduation. When it comes to the point of tuition, the graduates had the offer to know the guardian and those guardians can help the graduate to find a suitable job for them. If we see the regression 3 where we run the regression by excluding M.S.S. result, the outcome is, gender plays a significant role as the factor that influence the odd ratio in favor of employment. We can say that female graduates have a better chance of getting employed.

So overall, from our probit analysis, we can say that mother’s education, gender, HSC background, B.S.S. result and student operated job plays an important role, and these factors are contributing to the odds ratio in favor of getting employed for a graduate of the department.

Table: Estimating Marginal Analysis

Explanatory Variable	Mean	Marginal Effect (p-value)	Marginal effect at the mean (p-value)
1.Residence	0.3695	-.133(.271)	-.183(0.282)
2.Gender	0.521	0.284 (0.044) **	.391(.045)
3.HSC Background	0.586	-.298(0.028)**	-.411(.056)
4.BSS Result	3.54	0.858 (0.060)*	1.18(.054)
5.MSS Result	3.61	-.382 (.370)	-.526(.361)
6.Father’s Education	0.847	-.223 (0.286)	-.307(.284)
7.Mother’s Education	0.521	.241 (0.044)**	-.333(.075)
8.Internship	0.521	-0.079 (0.557)*	-.109(.558)
9.Soft Skills	0.586	.187(0.077)*	.258(.095)
10.Student life job	0.391	.388 (0.002)***	.534(.011)

*** 1%,5%,10% significance level – significant, ** significant at 5% and 10%, *significant at 10%-

Marginal Effect

We have different factors that determine the employability of economics graduate. Among them, the gender, higher secondary background, result of bachelor’s degree, mother’s education, soft skills, and students’ job during study are most significant at different significance level. Those who are female graduates are getting employed faster than their counterpart. When a graduate is female, the chance of getting employed increases by 0.284. Similarly, when the graduates have business background in their higher secondary level, employer prefers them over science students or humanities students. When a student has science background, he is less likely to get employed compared to their counterparts. When a graduate has higher CGPA in bachelor’s level, the chance of getting employed is also higher. Hence bachelor’s degree result is the significant factor. Mother’s education is another factor that has marginal impact on graduates’ employability. When a mother has less level of education, they can provide efficient time to their children, and this can make the students productive from the beginning. If a graduate has soft skills, he is getting employed as well. When a graduate has soft skills, employability increases by 0.187 unit. Lastly those who operated job in undergraduate level

beside studying, that graduate obtains job more easily.

So, we can say gender, higher secondary background, B.S.S. result, mother's education, soft skills, and student life job during study has marginal effect on employability.

CONCLUSION

We have tried to focus on the influencing factors for economics graduate to entire in the job market. To fulfil the objective, the present study governs the probit model for cross sectional survey data. We have used the probit model because it has some advantages which make this model useful for our purpose. It has some advantage over linear regression model and the logit model (logistic model) which was explained in the methodology part. According to the estimated probit results, the significant as well as most important determinants of being employed of these recent graduates are gender of graduates, HSC background, bachelor's degree result, mother's education. Having soft skills and job that was operated at student life which we started as part time job during student life.

On the other hand, residential status during undergraduate level, Master's degree result, Father's education result and finally internship after graduation are insignificant which means they cannot affect the chance of getting employed. The reason can be due to COVID 19 pandemic in recent time, various organizations were less likely to keep their intern at a permanent basis. In Bangladesh, there is a high chance that having M.S.S degree increased the chance of getting employed but our study on BUP says that having master's degree doesn't make any difference and it can't increase the chance of employability of graduates. We can say the bachelor's degree on Economics from BUP provides strong signaling of their graduates in the job market.

Our analysis result shows that, the coefficient of gender dummy is showing significant, and the sign is positive implying that the higher chance of employment in the job market compared to their male graduates. Therefore, a male graduate despite having identical qualifications similar as their female graduates that are demanded by the job market has low chance to be employed in job market. This case can be regarded as socio-economic impact. It refers to the problem that gender discrimination exists in the job market of Bangladesh. In our study mother's education plays a significant role while father's education is not playing any significant role. The mother who has education below Bachelor level is playing significant role in employment placement than the mother who has educational qualification equal to Bachelor or higher. Finally, when a student lives in own house, that student is struggling to find a job. The reason can be when a graduate lives in own housing facilities, he may spend more time in works other than study. So, well housing facilities have failed to provide sound institutional environment to students.

This study recommends that, those who are living in own house should have provide special focus on educational success by providing less time in unnecessary work. If it can be satisfied, it will ensure a good academic result as well as an outstanding performance in job market. To reduce the gender discrimination, employer should take some steps which can ensure equal right of getting employed. The employer should reduce the least requirement to job entry especially BSS students should be taken as possible job entrants except the specialized ones.

Sample size of our study is the main constrain as only three batch passed out completing their post-graduation till we are studying on them. Study could have provide a better and significant result if we could incorporate more batches of graduates of BUP Economics department to enhance the sample size of our study. Studying further on more graduate and post-graduate students of all department of Bangladesh University of Professionals can provide a better understanding about the employability opportunity and challenges comparing to job market demand.

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