

Skill Gap Analysis for New Job Market Entrants: A Study on Selected University Graduates

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Abstract

The paper investigates existing employability and skills development coherence among tertiary level students in Bangladesh based on the study of alumni of English discipline from University of Dhaka, Rajshahi University, ASA University Bangladesh, National University and Darul Ihsan University, Bangladesh. The study uses qualitative and quantitative data from both primary and secondary sources including employers' empirical responses from in-depth questionnaire, to map the factors influencing job market demands and the eligibility of graduates to succeed in meeting those demands. The results show that employers perceive 75% of their employed graduates lacking the skills demanded in a professional working environment. The universities can address the issue by providing professional trainings, workshops or seminars on soft skills development and IT expertise development. Updating the academic curriculum through inclusion of more practical oriented programs can be another way to improve the employability of university graduates. Furthermore, a separate online platform is believed to have desired impacts in offering the graduates with their selected qualification programs.

Keywords: University graduates, employability, skills match, graduate skills, soft skills, professional training

Introduction

Education for all is a global goal which emphasizes on providing universal access to the primary education. Consequently, international attention tends to focus more on primary education rather than the higher modes of education, even though tertiary level plays an increasingly important role in human, social and economic development (Sutton, 1998; Escrigas, 2008).

Bangladesh has made tremendous progress in ensuring primary education for its people. Research shows that net enrollment in primary education in Bangladesh is 97.9% (Ministry of Primary and Mass Education, 2015), which is almost nearing the SDG-4 target of 100%. Higher level education, however, remains out of reach for a large portion of the population.

Quality tertiary level education can enrich and contribute to the arena of knowledge, technology and innovation (Pyle and Farrant, 2002; Taylor and Fransman, 2004), which are prerequisites and essential catalysts for the faster economic growth of a country. Given that Bangladesh has a target to become a high-income country by 2041, ensuring quality higher education for its citizens is essential to make this dream a reality.

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Every year, almost 1.3 million people are joining the job market of Bangladesh (BBS, Manpower Survey-2010, 2010), and 47% of these graduates remain unemployed (EIU-BC, 2014). According to the 2016 annual report of the University Grand Commission (UGC), 3.6 million students are studying in different universities of Bangladesh, who will enter the job market in next 3-4 years. As such, there is a need to study the generalized experience related demand driven picture of the contemporary job market.

Many students graduate from the public and private universities in Bangladesh every year, but only a small portion of them get opportunities to join the workforce (Asadullah, 2014), while the majority remains unemployed or underemployed. An excess supply of university degree holders appears to be a serious issue for Bangladesh, as the economy cannot absorb all graduates, leaving many unemployed. The scenario is becoming further complicated as many of these university-graduate students lack the qualities and skills the job market demands. As employability is often primarily determined by the supply and demand of qualified graduates in the job market, it is necessary to consider the market's demands while designing the tertiary level academic curriculum. Furthermore, there is little evidence-based research on tertiary level education, possibly because education-related research in Bangladesh is mostly focused on primary and secondary education level.

The first problem in confronting higher education is that its purpose is difficult to articulate. (Mazumder, Karim and Bhuiyan, 2012). Although the general assumption is advancement of learning, critical thinking abilities (Manarin, Carey, Rathburn and Ryland, 2015) and gainful employment are also among the core factors (Mazumder et al., 2012). Considering employability as a core focus, bridging the gap between tertiary education and job market demands is of paramount importance (EIU- BC, 2014).

Literature suggests that both technical skills (EIU-BC, 2013) and soft skills (Bacolod, Blum and Strange, 2009) such as teamwork and communication are important to succeed in the workplace. Although communication skill is often misinterpreted by focusing more on oratory and written standards (Dobszay, 1993), it should be viewed on the simplicity and effectiveness of the message conveyed (Taylor, 2006). In fact, it is an essential part in conducting and mitigating negotiations (McFarland and Culp, 1993). Unfortunately, these crucial requirements are often half-fulfilled by educational institutions of Bangladesh (Toufique, 2014). Inefficiency of academic curriculum is attributed to the failure of meeting up the needs of the job market (EIU- BC, 2014). Also, necessary skill building initiatives are emphasized to be included in the institutional mandates (ADB, 2016).

The overarching aim of this study is to map out the gap between the quality of graduated students and the demands of the job market through intensive investigation of graduates from five universities (University of Dhaka, Rajshahi University, ASA University Bangladesh, National University and Darul Ihsan University). The study is based on an analysis of comparing the graduated students' skills with the employers' demands to find ways to improve the quality of tertiary level education to meet the expectation of job market. This study also infers some recommendations on how to address the quality issues regarding higher education in Bangladesh.

Objectives of the Study

The objectives of this study are as follows:

- To identify the quality dimensions of graduates aligning them with job market demands during recruitment phase.
- To analyze the dimensions of competence and performance of the employees (alumni from the universities) who have already been employed by the domestic market.
- To find possible ways for graduates to better align their skills with the demand of the job market.

Methodology

Interpretivism Approach

The interpretivism approach is used to capture the dimensions and gaps between the quality of university graduates and the demands of the job market. The perceptions of the employers and their understanding about the quality of the fresh graduates and employees already working in domestic market are collected through one to one in-depth questionnaire survey interviews.

Strategy Employed

Inductive strategy is used to identify answers to the questions underlying the research objectives. Through the questionnaire survey, many facts are collected and analyzed to formulate the generalized findings.

Mixed Method

This study utilizes both qualitative and quantitative methods to analyze qualitative and quantitative data for better plotting of the scenario.

Sources of Data and Data Collection Tools

This study relies on primary and secondary data. Primary data are collected through one-to-one in-depth interviews. Secondary data are collected from prior literature to understand the holistic view of the context.

Sample

One hundred and fifty (150) graduates who have completed their graduation from five different universities (University of Dhaka, Rajshahi University, ASA University Bangladesh, National University and Darul Ihsan University) within the past five years and employed in the local job market are randomly selected for this study and interviewed. Their employers are also interviewed. The sample is drawn purposively to fulfill the objectives of the study.

Results and Discussion

The figure I below shows that most of the respondents are from enterprise, academic, and business fields and each field has a different preference of experience-related requirements for entry level positions. One interesting factor is that all employer categories prefer few years of experience for entry level jobs. This highlights a key demand and supply gap for the universities to work on, as fresh university graduates often do not have full-time work experience and yet the job market expects otherwise. Universities thus have a role to play in ensuring their graduates are adequately equipped with not only the skills, but also relevant working experience by the time they are ready to join the market. This can be done by adding a semester-length internship period to the curriculum and periodical 1-month long internships during semester breaks.

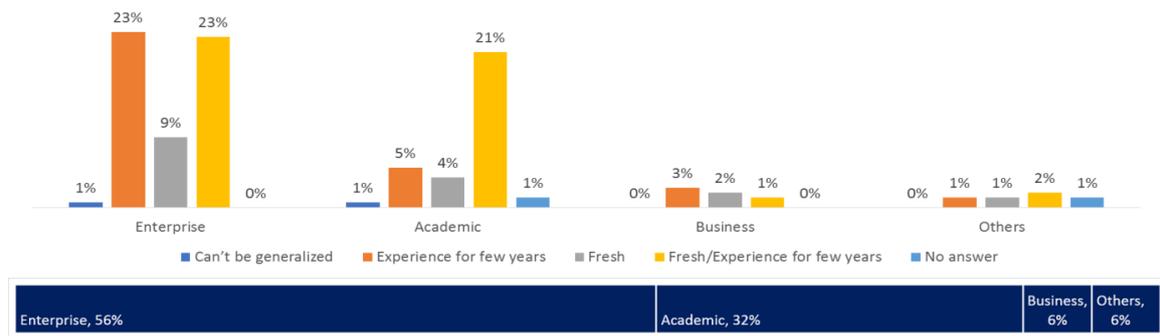


Figure I: Experience related requirements/preferences for various employment natures

Recruitment Demands and Quality Assessment of Graduates

The quality of the graduates is primarily categorized under four broad heads – (i) knowledge skills; (ii) communication skills; (iii) interpersonal skills; and (iv) work skills. There are also sub-categories under each of these broad categories, which are measured based on their level of importance using a five-point Likert scale, ranging from ‘not at all important- 1’ to ‘extremely important- 5’. Subsequently, all these skills are analyzed in relation to the employers’ demands during the recruitment phase.

The figure II illustrates university graduates’ knowledge skills and their relative importance during the recruitment phase. According to employers, subject matter related knowledge, IT knowledge and innovative knowledge, all have critical importance in recruiting new employees. Majority (61%) of the employers think that subject matter knowledge is very important for their organization whereas innovative knowledge has been identified as the second most important knowledge skill. In view of these results, the universities can redesign their courses to make them more practical-oriented to improve students’ abilities to gain in-depth knowledge about the subject matter. Besides, few compulsory professional courses can be introduced to stimulate creative thinking and to enrich the IT knowledge of the students (Pope, 2015). This is particularly important to note, since according to Pope’s study (2015), the gap between what employers seek in university graduates in terms of interpersonal skill is as wide as it was 25 years ago.

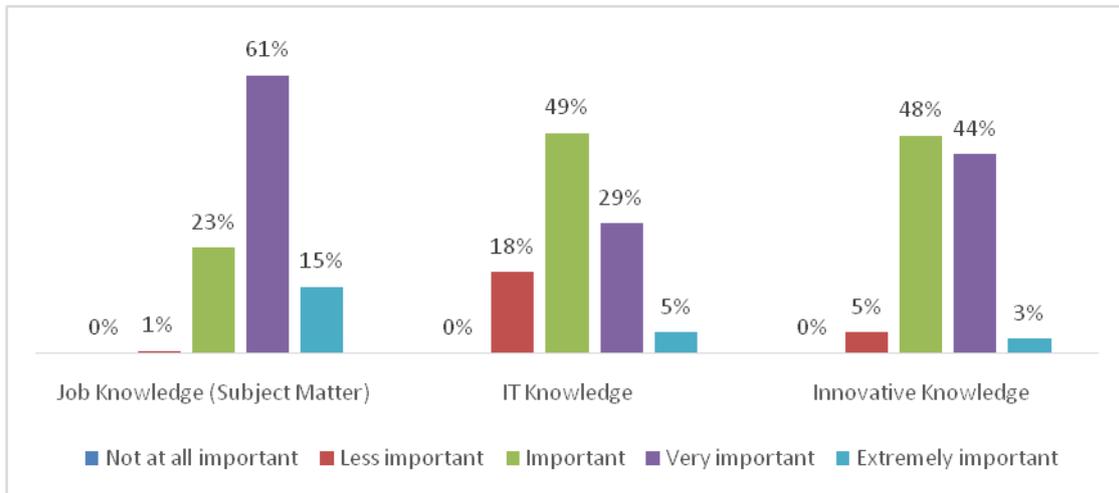


Figure II: Importance of knowledge skills during recruitment

The figure III below demonstrates that many of the graduates are struggling with their communication skills, especially in terms of fluency in English. Oral and written communication skills have an ‘extreme’ level of importance in the recruitment phase (Darling & Dannels, 2003). Presentation skills received an ‘average’ importance score in this study compared to the other two. It can thus be summarized that excellent oral and written communication skills have a great demand to the employers, which was also the same conclusion by Mallows, Carpentieri and Litster (2016). In one of picks of Business Insider UK, 46% of the managers have classified communication as a skill gap, 39% of the managers pointed out that the graduates lacked the skill of public speaking, while 44% said writing proficiency was also missing among the graduates (Gorman, 2016). Hence, universities must work on these to meet this demand of the market by providing graduates with opportunities to fully develop their oral and written communication skills and fluency in English.

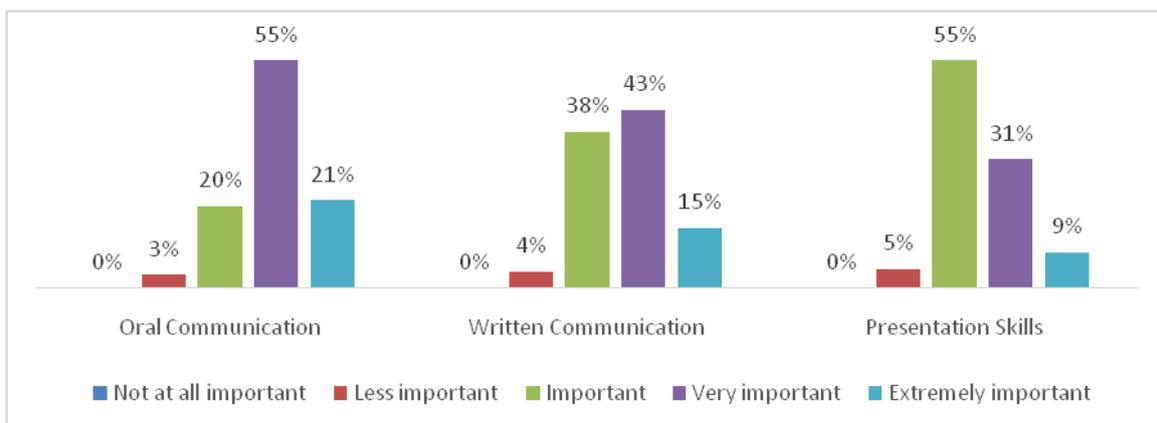


Figure III: Importance of communication skills during recruitment

Interpersonal skills help people to get along with others in the working environment while getting the job done. In this sense, it has a great significance in the professional atmosphere. As a result, all the interpersonal skills received 50% or above scores in the categories of ‘very important’ to ‘extremely important’ level, when considered cumulatively. However, as evident in the figure IV below, the ability to work in teams, leadership, reliability, adaptability and appreciation of ethical values are the most preferred interpersonal skills for the job market. ‘Motivation ability’ also has an immense importance whereas ‘empathy’ is a nice-to-have skill. Similar results were found by Brewer, (2013) and Robles, (2012). So, graduates should acquire the skills like leadership, team work, reliability, adaptability and appreciation of ethical values and universities must help their students to do so.

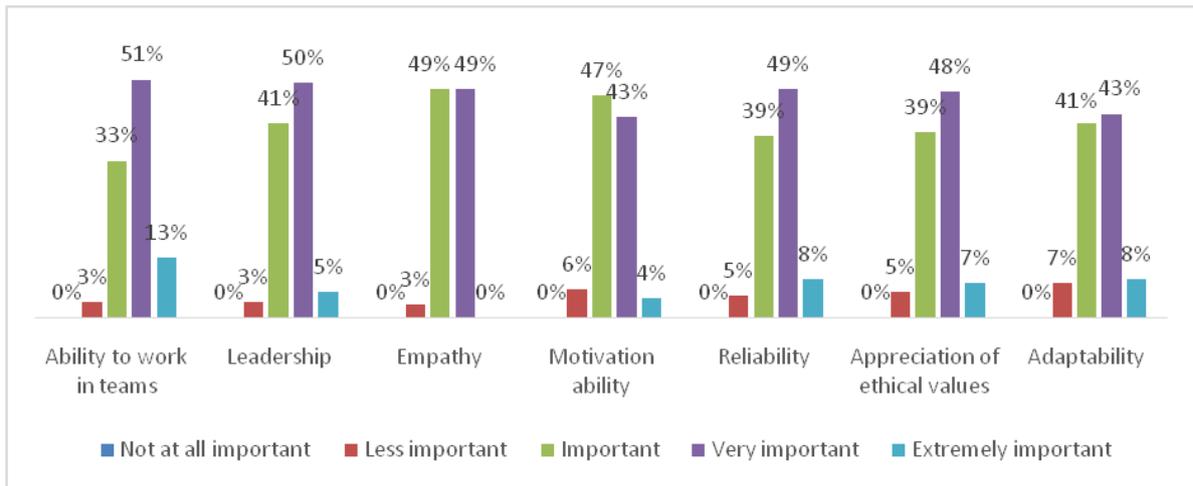


Figure IV: Importance of interpersonal skills during recruitment

The figure V below illustrates that time management, discipline and sense of responsibility are three of the most important set of working skills. Acquiring these skills requires long-term practice, so universities have to contribute here by teaching these skills to their students throughout their tenure in the university. Judgment, collecting and analyzing appropriate data, problem solving and decision-making skills are the second set of important working skills which are also preferred by the employers. However, in 4 to 7 percent of the cases, they believe these skills are less important. According to Robles (2012), both soft skills (defined as the interpersonal qualities, and personal attributes that one possesses) and hard skills (technical expertise and knowledge needed for a job) are considered to be very significant attributes among the job applicants by the business executives.

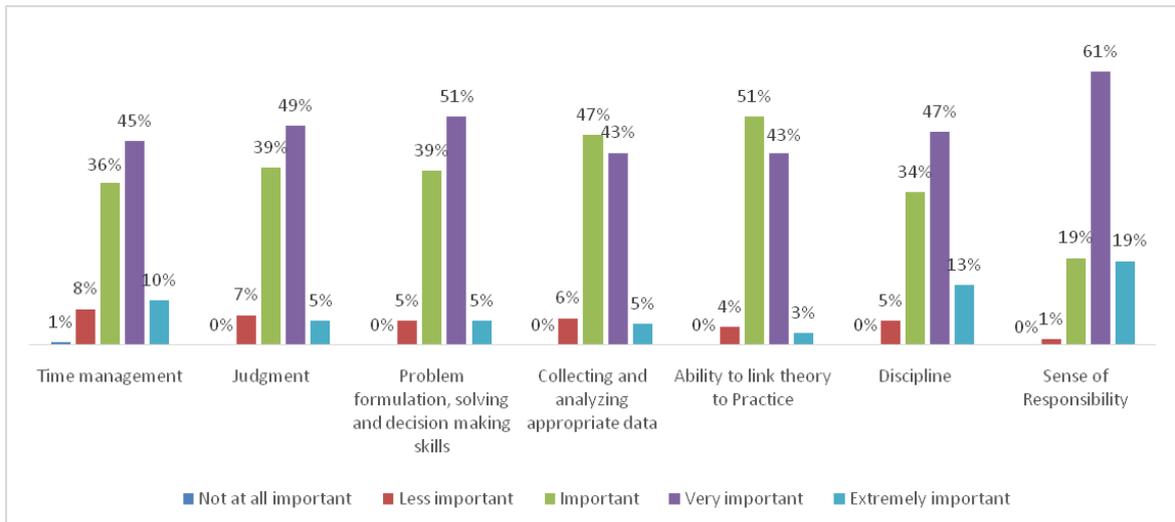


Figure V: Importance of work skills during recruitment

Competence and Performance of the Graduates

Percentage of the total unemployed labor in Bangladesh is 4.9% (EIU-BC, 2013) whereas 47% of university graduates remain unemployed (EIU-BC, 2014). Thus, unemployment rate for university graduates is exceptionally high compared to the overall unemployment rate of the country. On the other hand, skills and abilities of the major portion of the graduates do not fulfill employers' demands. As a result, in many cases, employers are hiring employees who do not have all the required skills but are otherwise more eligible than other candidates.

For this part of the study, current employers of the five universities alumni are surveyed to identify the dimensions of the competence and performance of these professionals. Performance of alumni based on various skills categories are analyzed in sequence.

The knowledge skills of the employees graduated from the five universities are presented in figure VI. It shows that they have good subject matter skills and innovative knowledge but there is a big room for improvement in terms of IT knowledge. So universities can design and start a well-rounded and workplace-oriented IT course to help their current as well as former students. It will also be very beneficial if universities form an IT Society to nurture the IT skill of its students. Besides, IT fair and competitions are very common themes nowadays where student programmers develop different applications and solutions. For instance, according to Forbes, PayScale reported that 36% of managers mentioned the graduates needed to work on their data analysis skills that involved knowing how to handle programs like Excel, Tableau, Python, R, etc. (Strauss, 2016). Moreover the important point in arranging these programs is that they encourage young students to improve their IT skills and show that IT-savvy people have improved career prospects.

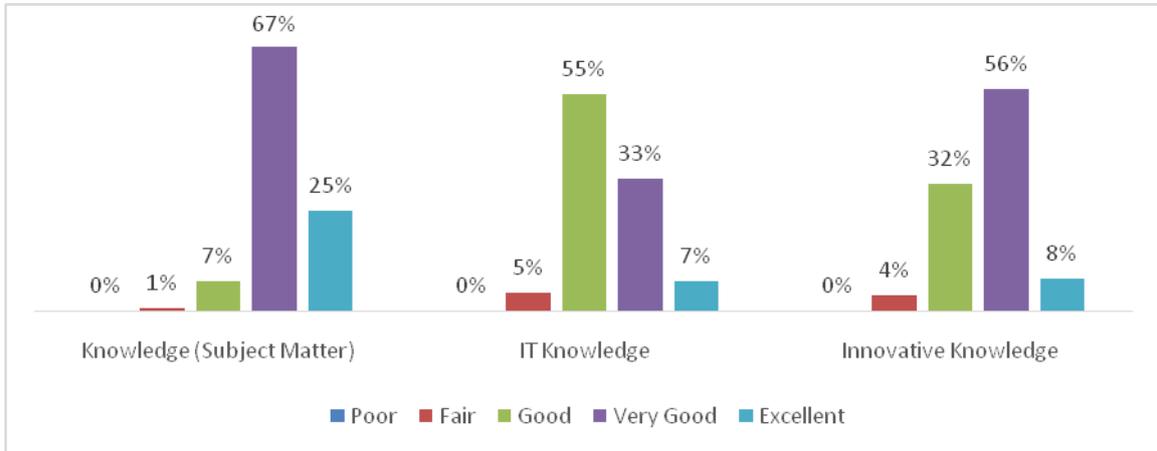


Figure VI: Knowledge skills related performance of employees (alumni of universities)

The figure VII below presents the performance graph in relation to communication skills of university graduates. It shows that they can satisfactorily demonstrate all the three categories of communication skills. However, the alumni may concentrate more on written and presentation skills to improve their skill-sets, as demonstrated by Gorman (2016). As most professional work requires proper documentation, employees require proficiency in written communication. Without a rich and usable vocabulary and writing standard, it is quite difficult to communicate properly in organizational environments, particularly in firms dealing with foreign counterparts (Taylor, 2006). Thus, it would be useful if students and alumni participate more in writing workshops, seminars, essay competitions and discussions on diverse topics (Robles, (2012); Pope (2015)). These activities will critically engage the participants in presenting their points and arguments more eloquently. Many local and international universities periodically organize business case competitions on an ongoing basis, which can also be pursued.

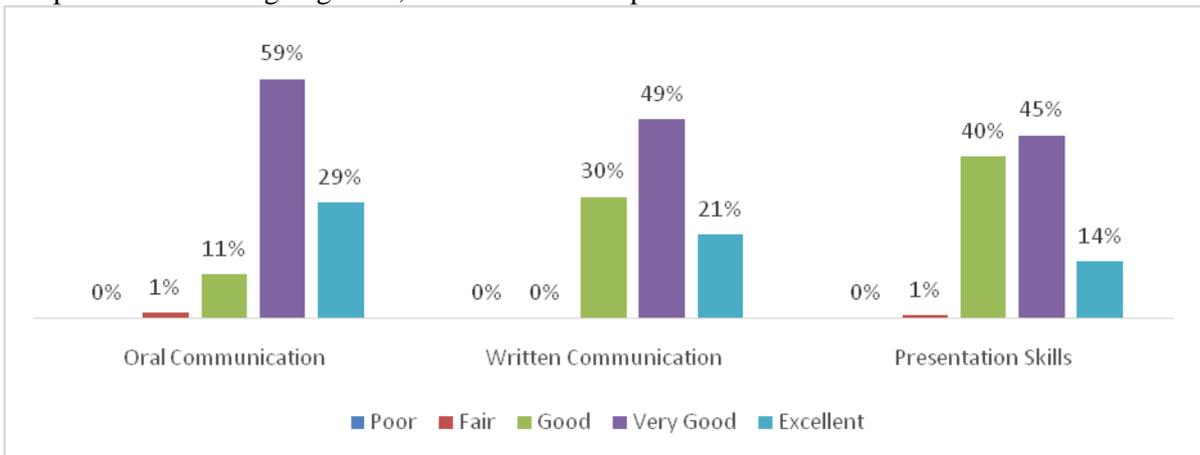


Figure VII: Communication skills related performance of employees (alumni of universities)

Interpersonal skills are crucial to achieve professional success. Figure VIII below shows that university graduates can improve in terms of leadership, empathy, appreciation of ethical values and adaptability skills. Universities may target these four skill areas for further development of their students by offering professional trainings and development programs (Robles, 2012). Performance of alumni in cases of teamwork, motivation ability and reliability is satisfactory. Leadership and adaptability skills are highly demanded by employers (Robles, (2012); NACE (2015)). They are also crucial to an employee's survival and success in a high-paced organizational environment. It should also be noted that most employers provide trainings for teamwork during internship and employee orientation activities. However, they are often inadequate based on the expectations of employers from the interns. (Mazumder et al., 2012).

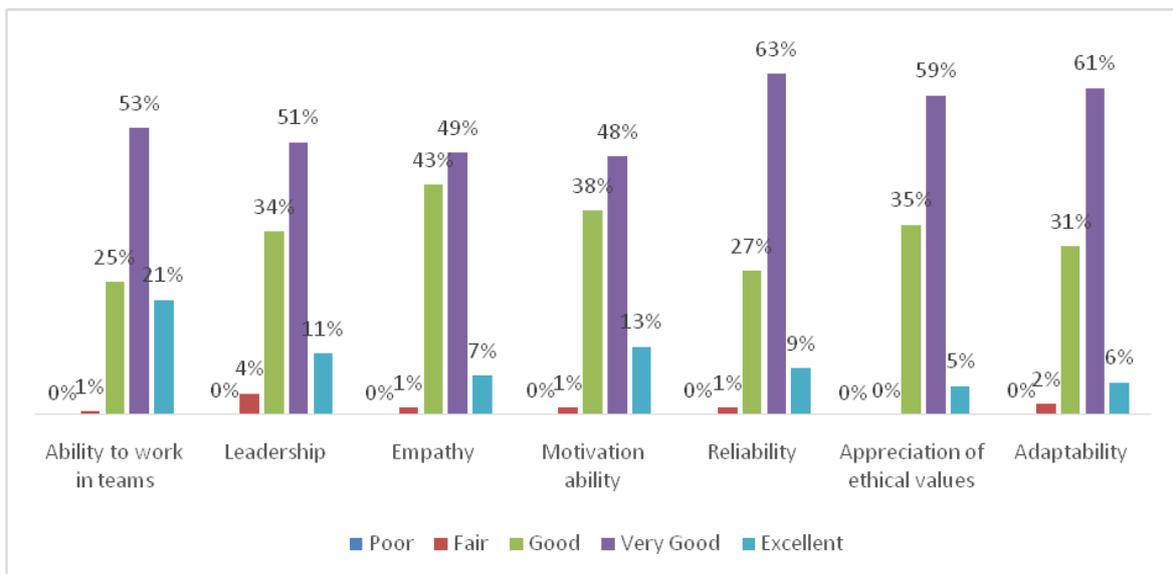


Figure VIII: Interpersonal skills related performance of employees (alumni of universities)

The figure IX presents the work skills related performance of the alumni of five sample universities. It shows that the alumni employees have a good set of working skills. However, they could do better in cases of judgment, data collection and analysis, and the ability to link theory to practice. In fact, context-based sensitivity is one of the toughest challenges for anyone taking a decision with a significant impact (PayScale, 2016). That is why universities hold debates, workshop and other activities on various social topics so that the participants can observe different aspects of an issue or problem based on different data sources, insights, and in some cases different solutions for a single problem. Universities can start training programs and professional courses to help their alumni and other professionals for further develop of their skills in these areas (Robles, (2012); Pope (2015)).

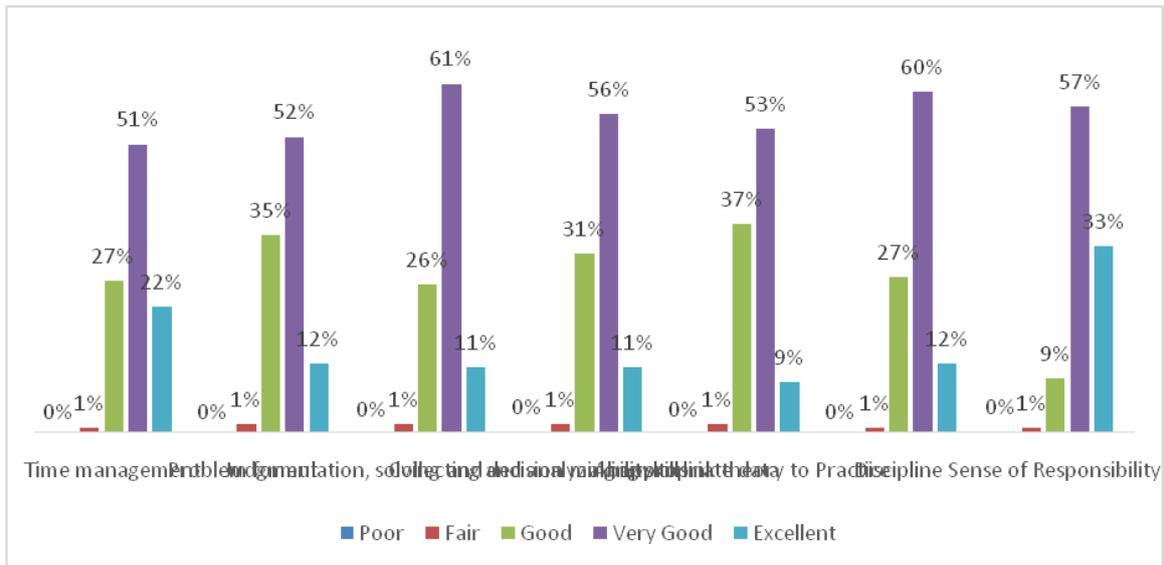


Figure IX: Work skills related performance of employees (alumni of universities)

Possible Course of Action for Universities to Meet Job Market Demands

Debates on how the educational system should respond to economic changes and vice versa have become quite pervasive in contemporary societies (Livingstone et al., 1999). For the same reason, this study investigates the current scenario and identifies possible areas of service provision by the universities to meet the changing demand of the job market. To fulfill the study objectives, an in-depth questionnaire survey of the employers of five universities alumni is conducted. All the respondents (employers) answered the questions related to service provision by universities based on their personal judgment, perception and experience. About 25% employers perceive that graduates have no professional weaknesses. On the other hand, 75% had different perceptions. Therefore, lack of skills of the employed alumni from different universities is a definitive matter and it is also pinpointing the potential gaps for further innovative contributions of tertiary level educational institutions (Pope, 2015). These innovative contributions will be the possible gate ways and service provisions for fulfilling the demand of the changing economy.

Figure X represents employers’ perception about the university graduates’ weaknesses at workplace. 25% employers are satisfied with the quality of the employed graduates but 75% are less satisfied with the quality and skills. The less satisfied portion shared the underlying causes of their dissatisfaction by stating specific lack of skills among the graduates.



Figure X: Major weaknesses of the employees from the employer's standpoint

Inputs and feedbacks received from respondents were sorted and summarized under broad heads, which are as follows:

Key skills that graduates lack

- Professionalism
- Procrastination / time management skills
- Communication skills
- IT Knowledge
- Behavioral issues/ work space management issues

A total of 15 skills are identified by the respondents and few are categorized under other skills here; for example: lack of presentation skill is categorized under lack of communication skills (Gorman, 2016); leadership, discipline, lack of adaptability (Robles, 2012) are categorized under behavioral issues or work space management issues. Lack of analytical ability, innovative knowledge, motivational ability, ability of judgment, (Robles, 2012) etc. are categorized under lack of professionalism skills. These categories are shown in detail in figure X.

Employers were also asked whether they have taken any measures to reduce the skill shortage. Among the interviewees, 55% employers stated that they provided trainings immediately after employee recruitment, whereas the rest of them (45%) did not provide training to their new recruits.

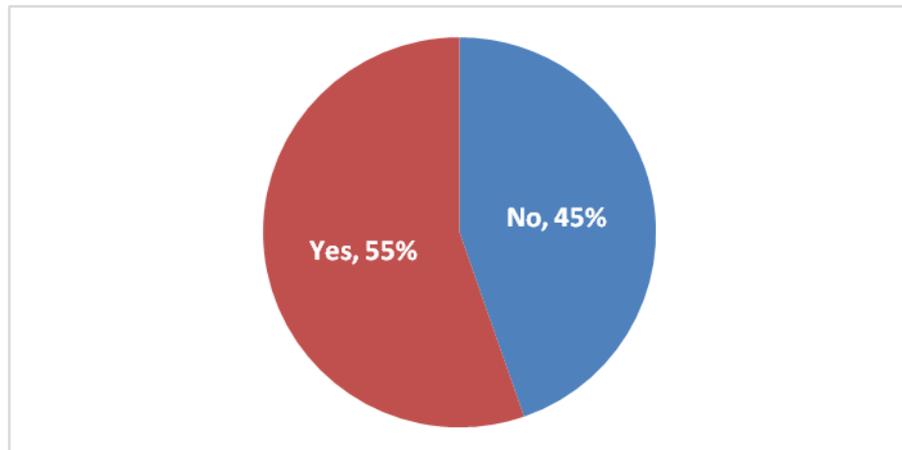


Figure XI: Training given to the new recruits before assigning any responsibility

Moreover, it is also important to understand what type of trainings is provided to the newly recruited employees. According to the employers, the following types of trainings are provided to the employees immediately after recruitment and before assigning any job/task responsibilities:

- Organizational orientation training
- Customer service training
- Effective communication
- Reporting
- Galileo office
- Microsoft Office; oral and written communication tutorials.
- Accessing exam scripts; syllabus constructing; class management

As evident from the descriptions, these trainings are highly specific and individual subject/task/job oriented. General skills such as communication and interpersonal skills remain mostly disregarded, even though these skills have demands in the job market, irrespective of the industry. Therefore, it is obvious that universities need to better equip their students to ensure their survival and success in the job market (Pope, 2015), as they will have decreased scope to improve these skills after they graduate. So, universities may offer specialized trainings and workshops for employees working in different organizations to develop these general skills and competencies.

Improving Employability and Professional Development of Graduates

Employability is a continuous process of learning through which a graduate can learn a set of skills and attributes to get a desired job or professional success. In this regard, Lee Harvey (2017) defines, “Employability is, thus, more about ability than it is about being employed. It is about developing as a critical empowered learner”. To increase the employability of the students and the alumni, the Universities can adapt any suitable employability model. In general employability models offers three set of opportunities to increase the capability of an individual-

firstly it provides formal training and information; secondly, it access the general attributes (flexibility, adaptability, self-organization, time-management etc.) of the students and guide them to improve the core attributes (Dacre & Sewell, 2007); and last but not the least, to convince students and graduates about the effectiveness of continuous learning process or habit. So, the universities can help the individuals by offering them above three set of opportunities for attain higher levels of employability. The first set of opportunities has an immediate effect but the other two has a long-term effect. Hence, universities need to revise its curriculum on the basis of long term and short term priorities or demand of the current job market. However, based on this study few recommendations for improving the employability of graduates and alumni are listed in the following section.

Recommendations for Strengthening Academic Programs and Improving the Quality of Graduates

Based on the earlier discussion and analysis of the key factors in matching the requirements of the job market and the skills of the graduates, the following themes are crucial for universities to improve and ensure its graduates' entry and sustainability in the job market:

- Universities should focus on nurturing communication skills of graduates (Pope, 2015). Different reading and discussion groups can be formed among students to enhance their skills.
- Universities can focus more on creative writing with high English (Mallows, Carpentieri & Litster, 2016) standards by arranging different writing exercises, contests on story writing, documentation, essay competitions, etc.
- Assessments of student learning outcomes should be conducted more thoroughly, based on separate skill and competency-based categories after a course is over
- Universities should engage their students in voluntary social activities to develop their interpersonal skills and build sound ethical judgments (Dacre & Sewell, 2007)
- Frequent reflections and peer reviews can be initiated to improve understanding and retention of subject matter in classes. When students get appraisal and feedback from their peers, they tend to put more effort into the activities
- Exercises and activities requiring updated IT skills needs to be incorporated in the course curriculum, along with practical and job oriented programs (Strauss, 2016)
- Themes relevant to job market such as professionalism, workplace communication and interactions, management skills, etc. should be discussed in classes, along with practice sessions and demonstrations (Pope, 2015)

Additionally, universities should improve and extend their activities to connect their current and future graduates to the demands of the job market. In bridging the gap between the skills supply and demand mismatch, the following activities may be organized for current as well as former students:

- Classroom activities need to engage the students more actively in subject matters of study, including contemporary examples
- Brief but frequent writing practices and peer-reviewed group works to augment leadership and communication skills
- Regular seminars, workshops and voluntary activities to improve managerial and soft skills
- Organizing rigorous team-based student competitions to improve context-sensitivity and problem-solving skills
- Collaboration among universities and the corporate sphere to provide trainings for employees
- Employers should be invited as guest teachers to share their demand and preferences with the students and this will help the students to get prepared on time.

On a different note, job fairs are one of the more recent additions in the list of university-organized activities where the potential of their graduates are presented to employers. Graduates also have the opportunity to interact with company representatives, and this serves as an effective medium for universities to link their graduates to the job market.

As demonstrated by figure XII, 56% of the employers are willing to join job fairs; whereas 38% employers are not willing to join and the rest of them (6%) are unsure about their preference. Therefore, universities need to attract the 44% (of employers who are either unwilling or unsure about their participation) to attend the job fairs, and continuously motivate new organizations to join. However, the success of this endeavor relies on successful performance of existing graduates in the job market.

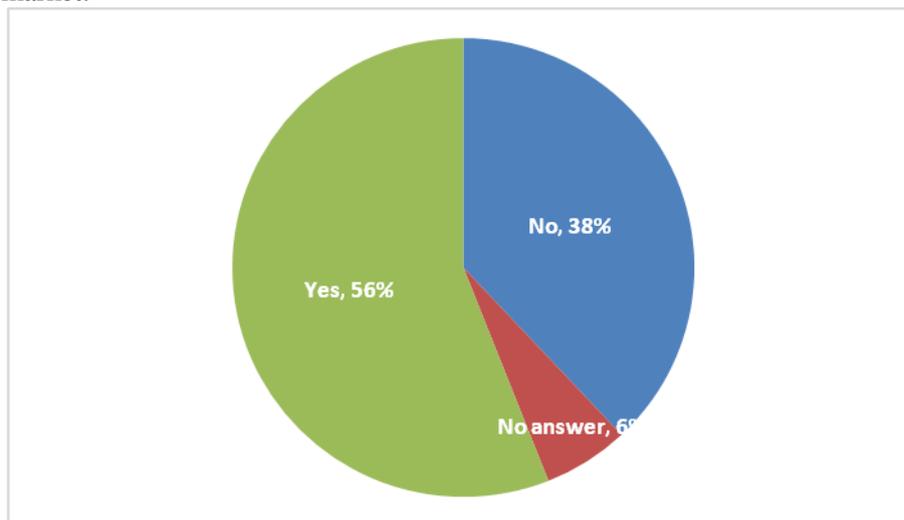


Figure XII: Willingness of the organizations to participate in the job fair

Comparison of skills of graduates from ASAUB and other universities

This study mainly focus on the students and alumni of English Discipline; and 150 sample employers were drawn purposively to collect information through questionnaire survey on skill gap of graduates from five different universities. Still there is a bigger room left for further study and in-depth investigation. For example: in the following section the investigator presented a comparative analysis of skills between ASAUB and other universities' graduates.

In the figure XIII the employers gave more score to ASAUB fresh graduates than other universities' fresh graduates. These scores were given by the employers on the basis of their empirical knowledge to identify the importance of the above mentioned four key skills in the recruitment phase. In all the four categories, respondents perceive that ASAUB graduates need to give more emphasize and importance to their skills than other university graduates. In this case, it can be clearly outlined from the above figure that communication skills and work skills has comparatively greater importance for ASAUB graduates. So, university can address this issue and resolve it by following the recommendations depicted in the above sections.

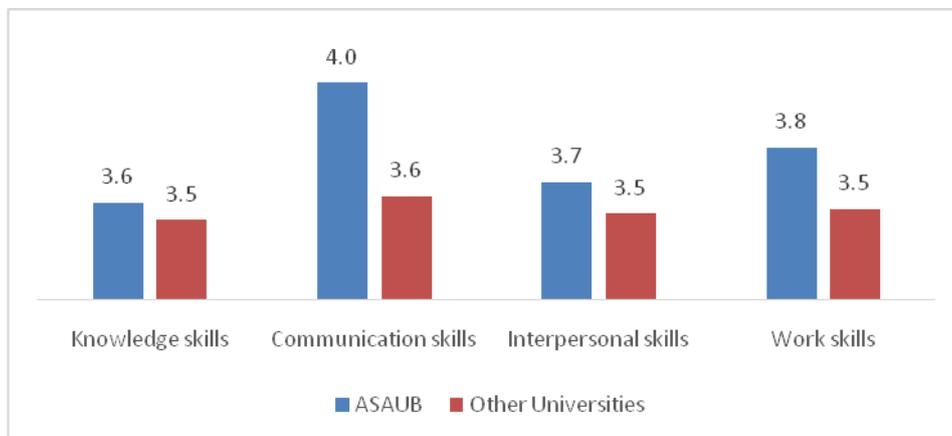


Figure XIII: Comparison of skills in entry-level between ASAUB and other universities

On the other hand, Figure XIV shows that alumni of ASAUB get a higher score in their job field comparing to the score of alumni from other universities (except knowledge skills). This means graduates of ASAUB is fulfilling their skill gap by utilizing the opportunities of their profession sphere and other personal development resources as well as they are really giving importance to improve their key skills for further development after entering the professional arena. As an evidence, ASAUB alumni gets an excellent score (4.1) in communication skills. Besides, there is still room for improvement in knowledge skills. However, this kind of separate university level skill gap research is highly necessary to enrich universities' capability to supply more skilled man power for the job market and consequently, to contribute in the sustainable economic growth of the Bangladesh. But the individual university level skill gap analysis of the graduates is beyond of the scope of this study and it is a potential research gap for further investigation.

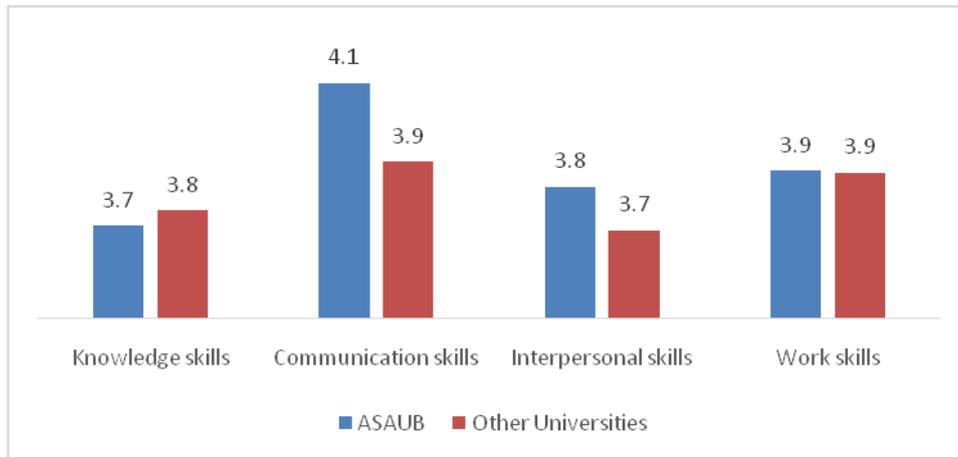


Figure XIV: Comparison of skills for employed graduates between ASAUB and other universities

Conclusion

Striking a balance between the supply and demand of skilled workers is crucial for the sustainable economic growth. As evident from this case study, Bangladesh still has a long way to go before it can achieve that balance. To do so, tertiary educational institutions need to thoroughly assess the market conditions, current and future flow of potential workers, job market demands, and then reorganize their curriculum, classroom activities and evaluation techniques. To address discrepancies such as the need of experienced workers for entry level positions, work-study modules and internships may be more widely adopted and incorporated by the universities to enable students to earn valuable work experiences while remaining in academia. Also, in addition to subject matter skills, workforce-oriented skills should form an integral part of the academic curriculum. Continuing professional training programs are also needed for graduates who are already employed. By adopting these measures, the existing skills supply, and demand mismatch can be significantly reduced.

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