

Academic Curriculum and Labor Market Mismatch: A Study on University Graduates in Bangladesh

Wasik Sajid Khan

Lecturer, Department of Economics, Faculty of Arts and Social Sciences,
Bangladesh University of Professionals, Bangladesh.

Abstract

The undergraduate program is a major steppingstone to build a career. After getting tertiary education, large number of graduates remain unemployed for a prolonged period. Studies have indicated the presence of a mismatch between the curriculum and job market requirements. This study tries to explore the gap from fresh graduates' perspective, who are the sufferers. Their perception regarding the current tertiary education curriculum and expectations about it may help address the issues and redesign the curriculum. Graduates from Business Administration, Science and Engineering, Arts and Social Sciences, Medical and Dental studies were interviewed on a range of questions about their respective curriculums, job market scenario, prospective skills and others. This study follows qualitative norms to find the results and presents it in descriptive manner. The results show increased preference of changing and reforming the current university curriculum for the convenience of getting a job. From their experience in the labor market, graduates have expressed lower level of satisfaction about current curriculum and do feel the necessity of new skills to find a job. Most of the graduates prefer shifting their field of higher studies and job due to lack of relevant employment opportunities. This study argues that, OBE and blended learning should be implemented in higher education institutes to meet the challenges of Industry 4.0.

Keywords: Curriculum, Labor Market, Tertiary Education, Job Mismatch, Higher Studies

1. Introduction

With every passing year, the number of students graduating from different universities and higher education institutes and joining the labor market is increasing in Bangladesh. Keeping the pandemic period aside, overall unemployment rate has not altered that much, which indicates the presence of a stable labor market scenario in the country. But, at the same time, huge number of university graduates remain in the unemployment pool for a long time. More than one-third of the youth are unemployed (Murshid, Mahmood & Shashi, 2019). In the face of fourth industrial revolution, industries need to constantly adjust their business model and production process. Educated young job aspirants are required to have the skills needed for frequently changing job modalities (Rahman et al., 2019).

Higher education system in Bangladesh needs immense improvement to upgrade its position to the higher middle-income class from lower-middle class and ensure sustained growth in per capita income (Ahmed, 2016). In the modern world, soft skills as well as other capabilities influence the attainment of

long-term employment (Nusrat & Sultana, 2019). Job market scenario for educated youth clearly shows there is a mismatch in the skills students acquire during their academic years and the ones actually needed to secure a job.

Skilled professionals from neighboring countries are getting hired as Bangladeshi graduates often fail to meet up the required skills for the job. As a result, remittance outflow to India, China, and some other countries stands at more than 9 billion dollars. According to a recent report of Transparency International Bangladesh, more than 250 thousand foreign nationals from 44 countries are in the job market of Bangladesh, by legal or illegal means (Rahman & Anwar, 2020).

In the developed and most of the developing countries, there are links between tertiary education institutes and industries. But, as the scenario is quite different in Bangladesh, students often end up with acquiring a set of skills that are not as par industry demand. The number of public and private universities in the country has increased rapidly in last two decades. As graduates from different universities start joining the labor market, doubts concerning the quality of education and its link to employability become clear to them. Bangladeshi universities have failed to secure satisfactory positions in international rankings. This once again raises the question regarding overall quality of tertiary education (Ehsan, 2021).

2. Objectives of the Study

This paper aims at analyzing the mismatch between current higher education system and labor market mismatch from fresh graduates' perspective. Besides, this study has some specific objectives:

- (A) To explore the perception about current curriculum and desired changes
- (B) To examine the tendency of shifting their fields (horizontal mismatch) in job market
- (C) To diagnose the state of mental hygiene among the educated youth

3. Literature Review

Existing literature and reports have opinionated differently on the current scenario of the tertiary education system and on the way forward. Though higher education and job market have strong correction, the connection is not simple and straight forward. The university research facilities can bring new ideas and findings that may lead to the formation of new industries or even destruction of some (West, 2000) which lead to changes in job market.

Many studies have provided insights on the gap between the expectations of employers and the quality of graduates. Most required qualities expected by employers from the graduate job seekers are academic qualification, experience, professional knowledge/competency, loyalty, sincerity, and IT skills. However, the gap between the quality of fresh graduates and the quality standard needed by the professional world is quite substantial (Azim & Ahmed, 2016).

The growth of private universities in Bangladesh is a positive phenomenon. They have been working as alternative to public universities in creating academic opportunities for a large number of youth in gaining access to higher education. However, not all universities are performing up to the mark. (Ahmed, 2016). Furthermore, there are questions regarding the quality of students enrolled here as well as the ability of instructors. Private universities are often challenged with surges of demands for even larger enrolments (Ahmed, Chowdhury, Rahman, & Talukder, 2014).

Another study argued that the professional positions in the manufacturing industries at the beginning were occupied by non-university graduates. They did not receive any formal or informal trainings. On-the-job trainings were also not available for them. Gradually, university graduates started capturing the market and replacing non-university graduates. Those who could attain diploma from the universities retained in the job and the rest had to leave the sector. On the other hand, professional positions in service industries from the beginning were occupied by university graduates. But they did not study the relevant fields during their university education. They received training from the informal provision later. (Alam, Parvin & Rahman, 2020)

This technological advancement brought about by the fourth industrial revolution will impact jobs. Some age-old jobs will become obsolete while many new ones will be created. Those who are in the labor market must acquire new skills to survive the massive changes. They need to have high-level technical and cognitive skills as well as interpersonal skills. Abilities that machine lack, like creative and critical thinking, decision-making, negotiation skill and persuasion will be required to sustain the position. Standard of education is expected to influence skills that different firms might require (Mudzar & Kok-Wai, 2022).

In one study on Bangladeshi students, it was found that business and technology both leave impact on employment. Collecting data from 361 undergraduate and graduate-level students from different institutes, the study analyzed the data and concluded that students are aware of the changing job market scenario. Despite trying to acquire skills that will make them competent for the job market, they are not well equipped to accept the challenges faced in the era of fourth industrial revolution (Islam, 2022).

Another study trying to focus on the financial and nonfinancial challenges of higher education budget for human resources development. Tertiary education institutions, public universities in particular, severely lag behind in teaching learning aids and logistic support. The study concludes that, the volume of budgetary provision must be increased as well as more importance should be given to productively utilize the higher education budgets through reducing session jam, unemployment and put an end to shifting technical graduates into non-technical jobs (Sarkar & Hossain, 2016).

As most classes in a degree program are traditionally designed to increase students' theoretical knowledge of the subject, with less emphasis on how they might apply that information in real-world situations, students often face difficulty in the job sector. Higher education institutes must implement work-integrated learning (WIL) programs for their students in order to help them gain generic skills and relevant work experiences. Successful implementation of WIL requires modification of the current curriculum, designing and offering work oriented courses as well as building strong connections with potential employers and make teachers and students aware about WIL. Employer involvement in education and training should bridge the gap between education and employment (Chowdhury, 2020).

According to the Labor Force Survey 2016–2017, the unemployment rate among those with tertiary level education was 11.2% in 2017, significantly higher than the national average of 4.2%. One-third of total graduates remain in the unemployed pool for one or two years after graduation. Many consider pursuing additional degrees to level up their skills and credentials. Moreover, there are large differences among the various types of institutions. Graduates from colleges appear to be doing poorly when compared to other graduates. Only 19% of college graduates work full-time or part-time, while more than half are unemployed. Despite being looked down upon by many, polytechnic graduates are more likely to find work than university and college graduates. As a result, employment outcomes for tertiary-

level technical school graduates appear to be slightly better. Their relevant technical skills and knowledge may have helped them increase the employability (Rahman et al, 2019).

4. Methodology

This research work is based on a cross-sectional survey. Stratified sampling method has been used to collect the data. Population of the study includes all the graduates who have completed their graduation in previous two years at the time of collection of data. The collected primary data consist of 385 graduates from different institutes. Graduates from Science and Engineering (BSc), Arts and Social Sciences (BA and BSS), Business Administration (BBA), Medical Studies (MBBS and BDS) were included in the sample.

As the population of this study is large, the sample size has been calculated using the formula:

$$n = \frac{z^2 p(1 - p)}{e^2}$$

For 95% confidence interval, 5% margin of error and population proportion of 50%, the calculated sample size is 385.

This study is based on descriptive analysis. Most of the variables collected from the survey are qualitative in nature. Both tabular and graphical methods have been used in this study. All the data and information received from the survey have been analyzed with the help of Stata.

5. Results & Discussion

5.1. Findings

Perception about Current Curriculum

Among graduates from four broad sections of mainstream education, almost all think they were provided with more theoretical knowledge than practical. Only majority of medical and dental graduates expressed that their curriculum served them with both equally. 86% Arts and Social Sciences graduates feel that their curriculum contained more theoretical knowledge than practical, followed by 67% BBA graduates and 61% BSc graduates.

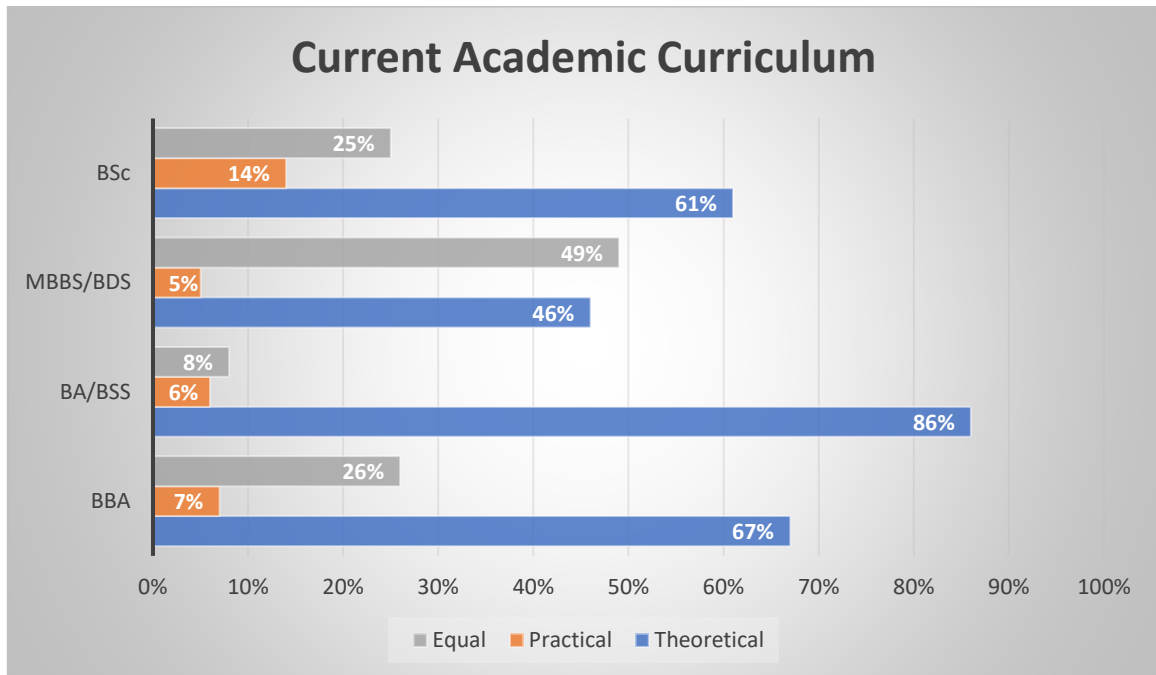


Figure 1: Perception of students of current tertiary education curriculum

Desired Future Curriculum

Apart from BA/BSS sections, more weigh on practical knowledge compared to theoretical knowledge is desired by larger portion of graduates. 68% of BA/BSS graduates want equal weigh on both, followed by 63% medical graduates and 51% BBA graduates. 48% BBA graduates want more weigh on practical knowledge, while the rate is 38% among BSc graduates.

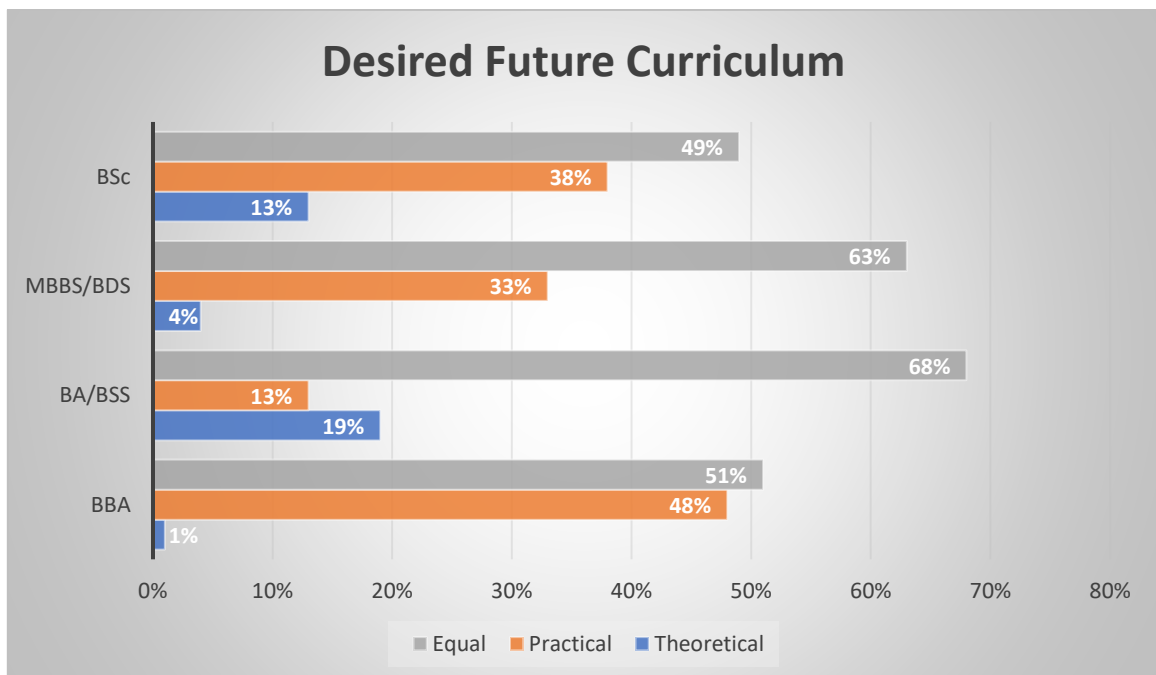


Figure 2: Comparative importance in desired future curriculum

New Skill to Secure Job

Almost all the Science and engineering graduates believe that, they need some new skill beyond their academic knowledge to secure a job. This can be explained by the nature of growth in science and technology and the requirement to cope with the advancements. On the contrary, 72.8% medical and dental graduates think this way. During their internship, they get to work with senior professionals from their field and get better skilled due to which, requirement of completely new skill is comparatively lower in this field.

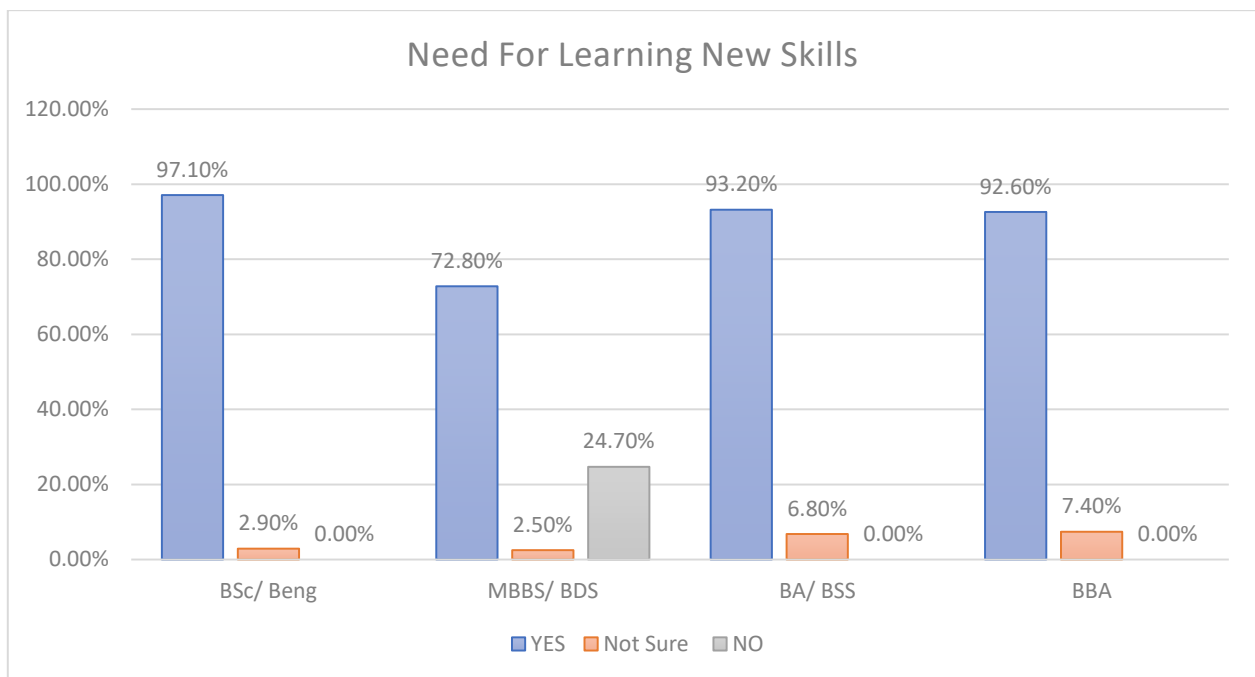


Figure 3: Perception about the need for acquiring new skills

Desire to Switch Job Sector

Majority of Arts and Social Sciences graduates were found to have the desire to switch job sector, whereas 95% of medical graduates do not prefer to switch their sector followed by 91% of business administration graduates. The ambiguity across fields can be explained by the availability of jobs in different sectors. BA/BSS graduates often find it difficult to find jobs that match their educational background and prefer to switch the sector. Medical and engineering graduates can not be replaced by graduates from other sectors. So, the desire is less among them. BBA graduates find that, most of the private sector jobs suit their sector and do not wish to switch.

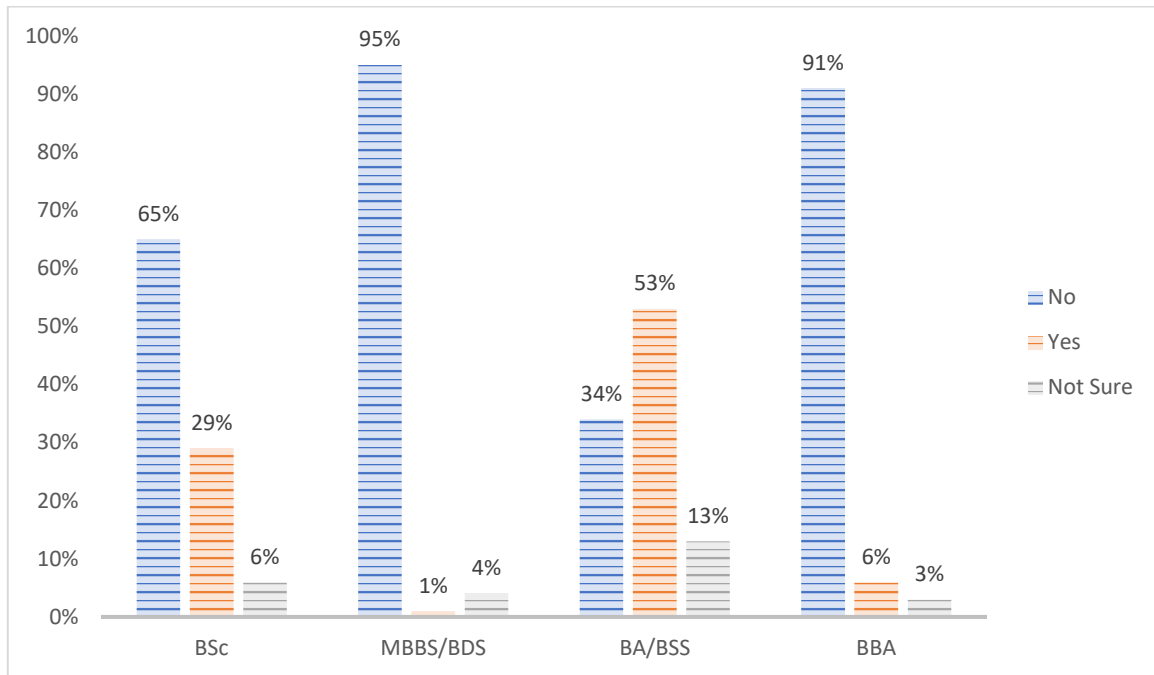


Figure 4: Desire to Switch Job Sector

Desired Field of Higher Studies

Among those who want to pursue higher studies after graduation, a large number want to pursue MBA due to the need of job sector. 56% of Arts and Social Sciences graduate want to pursue an MBA while the rate is 43% among BSc graduates. While graduates from other fields want to pursue MBA, 5% of BBA graduate want to shift their field of higher studies. Also, 98% medical and dental graduates want to pursue higher studies in their own field.

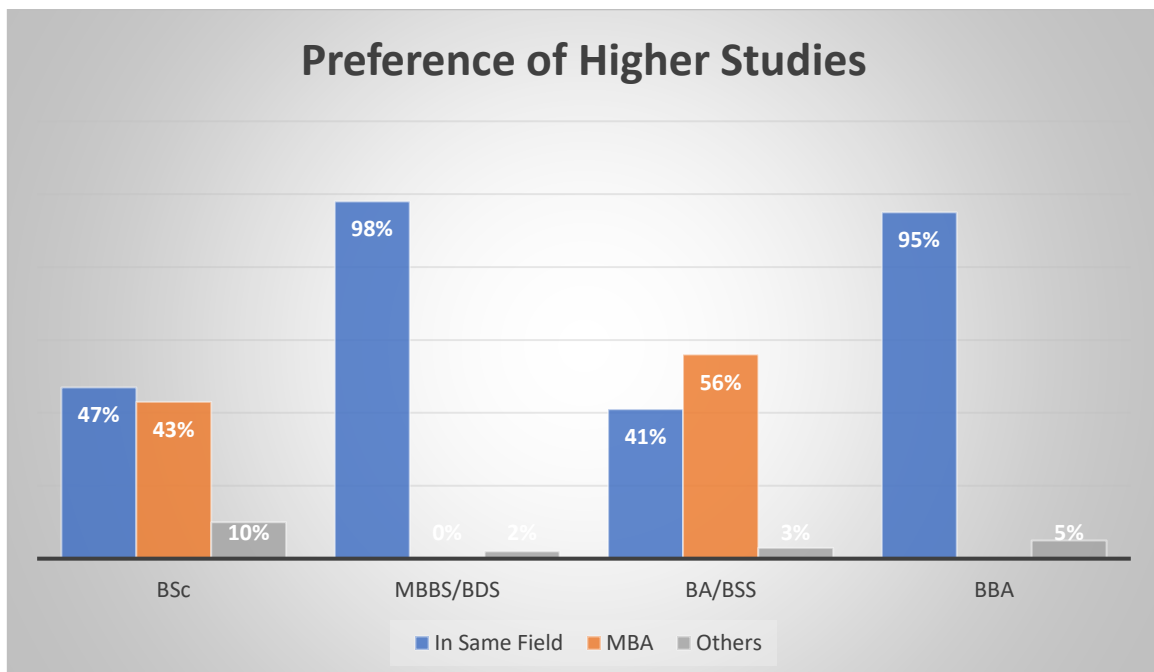


Figure 5: Desire for pursuing higher studies after graduation

Necessity of Internship

After graduating, cent percent medical graduates believe that internship is necessary. 1% of the BBA graduates think that, internship is not necessary in their curriculum. 87% of the BSc graduates and 89% of the BA and BSS graduates feel the necessity of internship when they enter the labor market. So, the necessity of internship is there in almost every field.

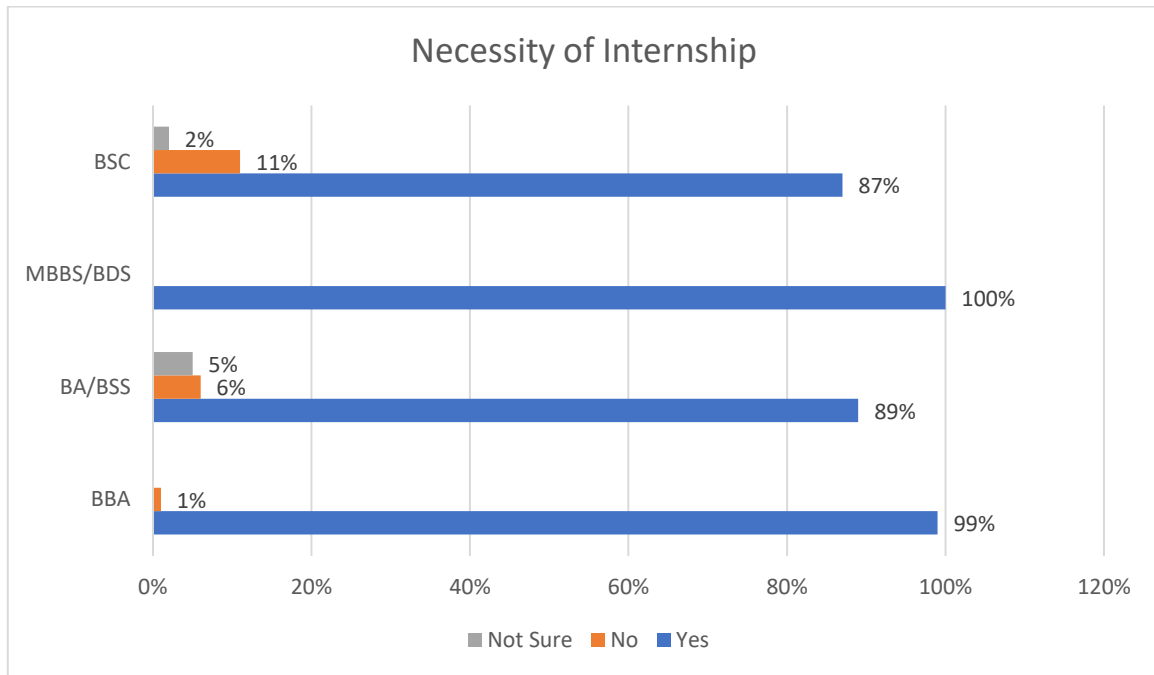


Figure 6: Necessity of Internship

Satisfaction with Current Curriculum

When it comes to satisfaction with current undergraduate curriculum, no student from any class confirmed full satisfaction. 38% of medical and dental graduates are satisfied with their current curriculum while only 9% of BA and BSS feel the same. 43% of the Arts and Social Sciences graduates are dissatisfied with their curriculum. Around one-third graduates from each field are neutral.

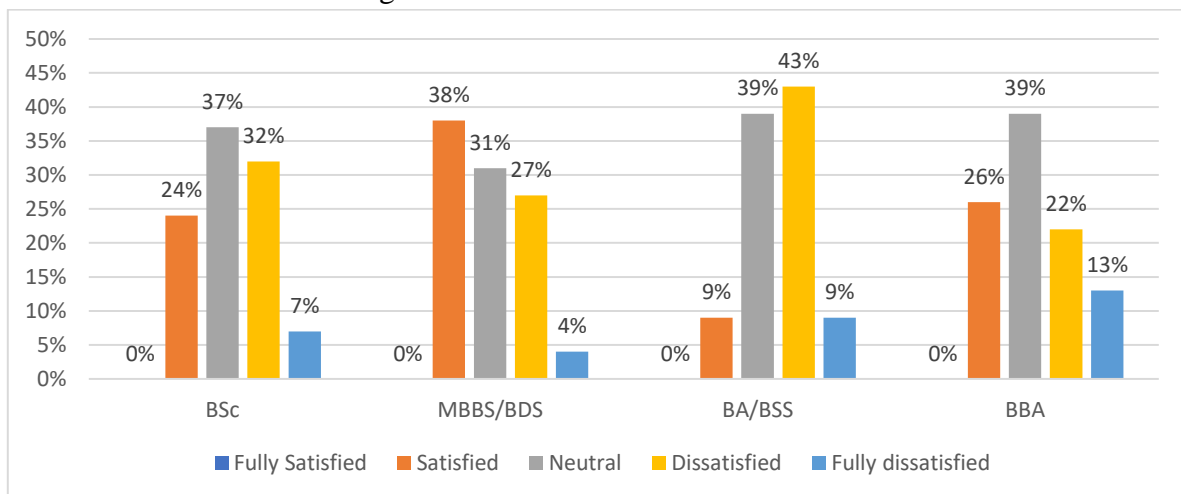


Figure 7: Satisfaction with Current Curriculum

Mental Hygiene

Out of students from all categories, 67% have experienced mental health issues during their undergraduate years, while 10% said they are unsure. 23% said they have not faced any mental health problems like stress, burn out, depression during their undergraduate years.

Less than 46% students reported in the affirmative when asked about institutional support regarding mental health. 28% did not have any support in their respective institutes while 26% were not sure.

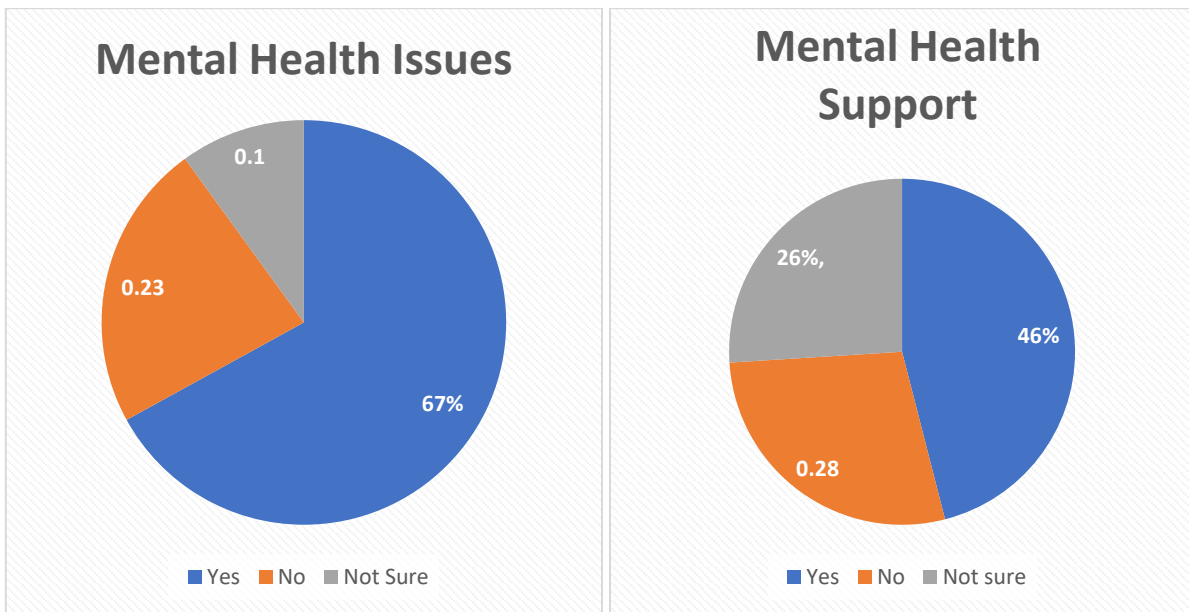


Figure 8: Condition of Mental Health and Support from the Institution

Effect of Academic Pressure on Mental Hygiene

Another interesting finding of the study is that, many graduates feel the academic pressure during their undergraduate studies has affected them positively and developed the capability to work under pressure. 27% of the respondents belong to this group. On the contrary, 38% students believe that academic pressure left negative impact on their mental hygiene while 35% preferred staying neutral.

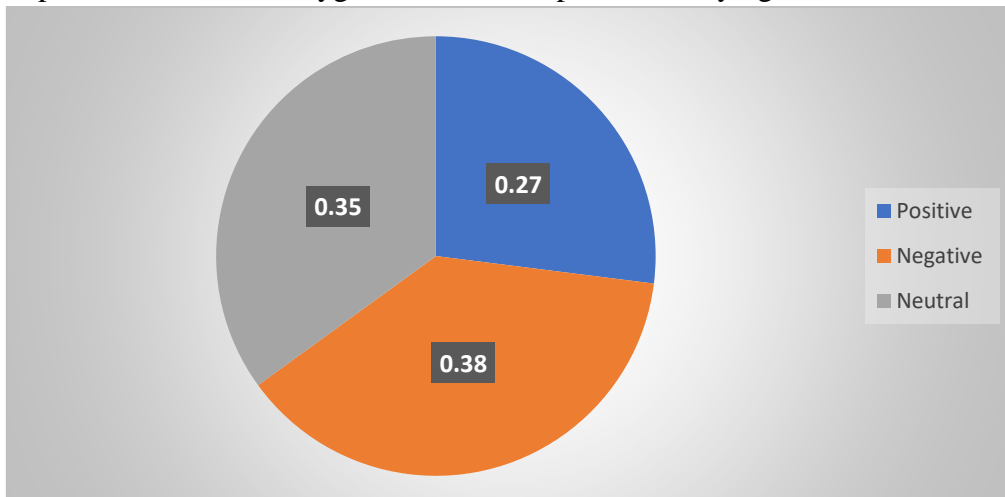


Figure 9: Impact of Academic Pressure on Mental Hygiene

Cocurricular Activities

78% students feel that, only academic studies are not enough to secure a suitable job these days and cocurricular activities are necessary in this regard. 5% do not see the necessity of these activities and 17% are not sure about it.

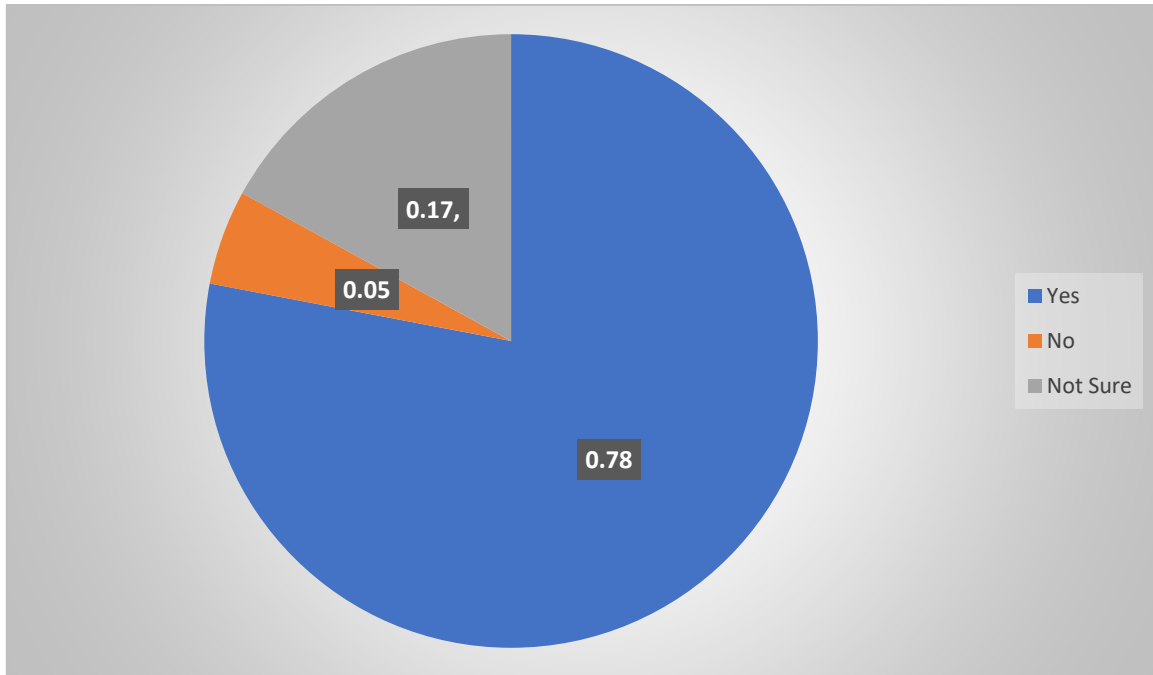


Figure 10: Necessity of cocurricular activities

5.2. Discussion

From the results above, we can see that many of the students from all four categories have shown an extent of dissatisfaction towards their current curriculum, though the percentage varied across fields (Figure 7). This level of dissatisfaction was supported by the desire to have changes in current curriculum (Figure 2) of graduates of all four categories. From Figure 4, we can observe that students from four categories agree that learning new skills for securing a job and the advancement of their career is a must.

Except for medical and dental field, graduates from all categories have the desire to pursue an MBA. Skill mismatch between academic field and corporate sector jobs made them think this way. Very few medical and business graduates want to switch job sector as they can find jobs that suit their academic curriculum. On the other hand, most of the BA and BSS graduates wish to switch job sector (Figure 4). Irrespective of the academic background, all feel the necessity of internship as a part of their program as it helps students know the real job sector and environment better as well as identify the gaps between the employability criteria and their ability (Figure 6).

Questions about mental hygiene, an issue that is hardly considered by academic institutions but deserves proper attention was also part of the study. Figure 10 and Figure 11, we can observe that A big chunk of students faced mental health problems during their undergraduate years while most of them were not provided with supports from their respective institutes (Figure 9 and Figure 10). Graduates have ambiguous responses regarding the impact of academic pressure on their mental health (Figure 11). Finally, the necessity of cocurricular activities is felt by most of the young minds. Almost 80% of them

think academic studies are not enough to make them able to secure the desired position in job market and cocurricular activities help them feeling the gap.

6. Conclusion

Current labor market scenario clearly indicates that there is a gap between the knowledge and skills the curriculum is providing, and the knowledge and skills demanded to secure a job and sustain it. Pressure on gathering bookish knowledge, insufficient practical skills, poor funding in research, absence of a diversified ambience make the situation worse. Findings of this study can, to some extent explain the scenario from the graduates' perspective.

Dissatisfaction regarding the current tertiary curriculum is almost universal among graduates from all the considered fields. According to their responses, lack of practical knowledge in the curriculum is a major factor behind this. Upon entering the labor market, they feel the dire need of bringing about a massive change in the curriculum for the betterment. They also try to acquire new skills that might help them secure a decent job as they were not supported to do so during their undergraduate studies.

The study also indicates that, dominance of corporate and business sector jobs makes most of the graduates go for an MBA degree. Apart from medical and business fields, all other fields are failing to retain the graduates in their relevant sectors. Losing interest in science, technology, engineering, and mathematics (STEM) can lead to unsatisfactory labor market outcomes in future for the country. In a period when most modern technology-based knowledge and skills are needed to cope with the modernization in industries brought about by fourth industrial revolution, moving away from STEM education in large numbers is not something policymakers would want to experience.

Absence of proper counselling facilities should be addresses urgently as many students face mental health related issues and do not have the same level of resilience. Not every student perceives the academic pressure in the same way. While some get benefitted from it in developing their capability to face pressure at work, many get frustrated and severely lag behind in studies. This should also be taken care of to ensure mental hygiene.

Inclusion of career mapping in curriculum is required as it guides the student effectively to choose their career in best possible way. Outcome based education (OBE) and blended learning should be promoted in tertiary institutes to make the students fit for modern job sector. One light of hope is that, understanding the necessity, most of the universities have started working on these.

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Conflicts of Interest

The authors declare no conflict of interest.

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