

Employment Trends of COVID-19 Graduates: The Case of a Malaysian Public University

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Abstract

This study presents an effort to understand the impact of COVID-19 on the Universiti Sains Islam Malaysia (USIM)'s employment trends especially for those who are being graduated in 2019 and 2020. Questionnaire survey was employed, and 505 USIM graduates in both 2019 and 2020 participated in this study. Means comparison and one-way ANOVA analysis were used to identify a significant difference between graduates' attribute groups on employment trends during COVID-19. The findings reveal that the majority of USIM graduates have different employment as compared to their field of study and have changed their employment at least once during COVID-19. Several attributes including gender, employment sector, employment area, salary range and involvement with the graduate employability (GE) program significantly influence employment trends during COVID-19. Further, among the main reasons for employment changes among graduates during COVID-19 are including to look for a better job, a suitable job and a more satisfactory salary. This study is believed to be a pioneering study in identifying the impact of COVID-19 on employment trends especially on dissimilarities between current employment within the field of study and employment change frequency among graduates. It also contributes by identifying the main reasons for such employment changes during COVID-19.

Keywords: Employment Trend, Graduate Employability, COVID-19.

Introduction

In the era of Industrial Revolution 4.0 (4IR), graduate employability (GE) became an important focus in a nation's human resource development. Suleman (2016) states that employability can be defined as the ability of an individual to get a job and remain in the job as well as being able to adapt to the demands of the industry. Meanwhile, Husain et al (2015) define employability as the skills required to meet and complement the needs of employees. GE becomes a serious concern in the development planning of the national agenda as it has an

influence on the success of the vision and vision of the country in the future. For that reason, GE development planning often focuses on improving graduate quality to make them ready to enter the market and contribute to the nation.

In order to develop a high graduate quality, education must remain relevant to the changing environment, especially in the era of 4IR. Efforts to produce quality and professional graduates require a sustainable strategy that is in line with the current needs of the nation. According to Ismail et al. (2018), skill is very important in the situation of the country heading towards a developed country especially in the era of 4IR based on the digital revolution that incorporates various technologies that disguise the boundaries between physical, digital and biological. Among the skills needed is including how to incorporate data exchange and the latest automation in manufacturing technology. Therefore, higher education institutions need to train their graduates with a superior set of skills to be competent in ensuring GE performance can reach the optimum level.

Apart from skills, GE performance also is contributed based on the current employment trend. Normally, graduate tend to leave the existing employment due better-paying job outside, poor relationship with boss or colleagues, pursuing higher studies, relocating due to family reasons, job dissatisfaction, job security, compensation not as per expectation, lack of job autonomy, poor working conditions and lack of opportunity for career development (Singh, 2019). Besides, employment trend also differs across sectors, organisational sizes and segments of the labour market. All these diversities led to inequality especially in terms of salaries and career growth's opportunities (Keller & Kirsch, 2020).

In addition, the coronavirus disease 2019 (COVID-19) pandemic recently give an impact on the world ecosystem in every human life aspect including GE. In this situation, COVID-19 becoming an external factor thought to influence economic stability in limiting GE opportunities. COVID-19 pandemic also caused economic and social patterns to change drastically. The order of movement control, working from home, dependency on technology as well as the implementation of virtual employment activities have to some extent changed the current labour market landscape and add to the need for new skills and adaptability capability by all graduates during COVID-19 including from Universiti Sains Islam Malaysia (USIM) (Husain et al., 2022; Kamaruddin & Hanefah, 2022).

Consequently, GE issue becoming more complex and needs to be given full attention. Even before COVID-19, GE always become among the major concerns especially in the higher education institutions around the world as part of their performance measurements (O'Leary, 2017). GE issue becoming relevant not only for higher education institutions but also for its related stakeholders including students, families, employers, professional bodies as well as the government itself.

Therefore, it is worth to mention that studying on employment trend especially after COVID-19 becoming importance as it will give the idea for future graduates on the future orientation of organisations especially in meeting the market needs for necessary skills and knowledge by them. Besides, this study is also will benefit the government and higher education institutions in planning appropriate alternative policy and strategies to increase GE rates.

Thus, identifying and understanding the impact of COVID-19 on the employment trends among graduates is becoming an important issue. Specifically, this study aims to examine the employment trends of USIM graduates especially for those who are being graduated in 2019 and 2020 and facing directly with COVID-19 impact on the labour market landscape after their graduation.

Literature Review

Graduate Employability (GE) in Malaysia

It is an undeniable fact that GE becoming more challenging due to COVID-19. For instance, employment opportunities sharply decreased due to the rise in the number of closed businesses, due to their inability to survive during COVID-19. According to the Malaysian Computer and Multimedia Industry Association, about 40 percent of new technology companies are expected to be closed due to the COVID-19 (Bernama, 2020). In addition, about 580,000 micro-businesses are at risk of closing down due to the series of lockdown orders by October 2021 (Suhaidi, 2021).

Moreover, the unemployment rate in 2021 increased slightly by 0.1 percentage point to a record 4.6 percent as the battle against COVID-19 pandemic continued during the year. In terms of unemployed persons, the number went up by 3.1 percent or equivalent to 22,000 persons to record about 733,000 unemployed persons in total as compared to 711,000 persons in 2020 (DOSM, 2022). Furthermore, unemployed graduates also are increase significantly to 4.4 percent with the number of unemployed graduates being 202,400 persons in 2020 as compared to 165,200 persons in 2019 (DOSM, 2021).

Of the unemployed graduates' figure, over than 70 percent were an active unemployment comprised of 158,400 persons. Worst, 10.1 percent of this figure were in long-term unemployment or more than a year consisting of 16,000 persons. In terms of gender, the unemployed male graduates rate shows an increase from 3.5 percent in 2019 to become 4.3 percent in 2020. Similarly, unemployed female graduates' rate also highlights an increase from 4.2 percent in 2019 to become 4.6 percent in 2020 (DOSM, 2021).

On the other hand, based on the latest GE report by the Ministry of Higher Education (MOHE) in 2020, it was reported that the overall GE rate for 2020 dropped from 86.2 percent in to 84.4 percent. Specifically, the employed percentage shows a decreasing pattern from 63.5 percent in 2019 to 60 percent in 2020. In contrast, the unemployed percentage highlights the increase pattern from 13.8 percent in 2019 to 15.6 percent in 2020. The details for the overall GE rate are shown in the following Table 1.

Table 1

Overall Malaysian Graduate Employability Rate in 2020

GE Score Category	2020 (%)	2019 (%)	Changes (%)
Employed	60.0	63.5	3.5
Furthering studies	17.8	16.7	1.1
Attending skill enhancement courses	2.0	1.3	0.7
Waiting for placement	4.6	4.7	0.1
Total GE scores	84.4	86.2	1.8
Unemployed	15.6	13.8	1.8
Total scores	100.0	100.0	-

Note: 2020 (n = 260,701); 2019 (n = 298,551)

Source: MOHE (2021a)

By comparing the rate with the latest five years, Malaysia has a significant increase in GE rate from 2016 with 77.3 percent to 2019 with 86.2 percent before it dropped to 84.4 percent in 2020. Similarly, in terms of unemployed percentage, it shows a significant decrease from 22.7 percent in 2016 to 13.8 percent in 2019 before rose back to 15.6 percent (MOHE, 2021a). By taking into account the new fresh graduate numbers, amounting to between

300,000 and 350,000 yearly, this will become another challenge for graduates to compete with existing unemployed employees. This can be seen in a recent survey conducted on the employment prospects in the future in Malaysia, showings that final-year students from public universities believe that the employment prospects in the future after COVID-19 are low (Kamaruddin et al., 2021).

Apart from COVID-19, there are several other external factors that also contributed to GE challenges in Malaysia. First, there is a mismatch between the supply and demand of labour in the market. For instance, in 2019, only 10.6 percent of jobs related to medium and high skills were created, while the remaining 89.4 percent were low-skilled jobs. This contradicted the production of graduates every year who are highly skilled more than the industry demand (MOHE, 2021b). Second, the relationship and collaboration of the academia-industry in Malaysia is still at an unsatisfactory level. This led to the mismatch between salary offered by the industry compared to the starting salary guideline by the Ministry of Human Resources. For example, there is about 64 percent of graduates with diploma qualifications and 48.1 percent of graduates with bachelor's degree qualifications are receiving salary below the starting salary guideline which is RM2,040 and RM2,460, respectively (Pang et al. 2020). Third, graduates are not being prepared for the rapid technological changes especially under the 4IR. 4IR has already shifted the labour skill demand and yet most higher education institutions are still struggling in providing related technological skills to graduates (MOHE, 2021b).

On the other hand, Jobstreet (2018) in his study has highlighted five main causes of Malaysian graduates failing to obtain employment starting from: (i) applying for unrealistic salaries or benefits (68 percent); (ii) weak English proficiency (64 percent); (iii) choosing a job and company (60 percent); (iv) weak in communication (60 percent); and (v) no convincing personality and character (59 percent). Besides, there are also several other internal factors including the unwillingness of graduates to shift from the realm of learning in higher education institutions to nature jobs that require adequate preparation of mental, physical, emotional and skills other than academic skills and qualifications. In addition, the millennial graduate generation tends to choose a work-life balance careers and is unwilling to do dirty jobs. Moreover, advance in technology also makes current graduates more attracted to the work environment that celebrates innovation, creativity and high technology. They are more attracted to the flexible working style, short waiting time, high salary offers as well as bright career development as the criteria in the searching job (MOHE, 2021b).

Noticing that GE issues are becoming more challenging due to these factors, MOHE has launched the Graduate Employability Strategic Plan 2021-2025 on 16 October 2021. This plan is a capable strategic document to assist and provides guidance to higher education institutions to increase GE respectively in the pandemic and post-pandemic periods of the COVID-19. This is because the strategy and initiative outlined by this plan have been developed comprehensively taking into account the views of all stakeholders including the industry to ensure that the plan developed can help higher education institutions to produce graduates who are future-proof, holistic and balanced.

The plan focuses on the implementation of four core strategies to increase GE rates as follows: (i) strengthening talent excellence; (ii) student career matching; (iii) strengthening teaching and learning; and (iv) strengthening industrial relations (MOHE, 2021b). Under the first strategy, graduates' talents are strengthened with language skills improvement initiatives in English as well as 21st-century skills such as automation, artificial intelligence and related technologies 4IR. Graduates who master these skills have great potential to seize new job

opportunities in the job market. The second strategy highlights the efforts to streamline the implementation of job matching between demand and supply using the latest technology and big data. Among the initiatives outlined in the development of a JobMatching@GReAT portal that can automatically match the unemployed graduates' data with the criteria needed by the industry. Meanwhile, the third strategy aimed to ensure academic programs in higher education institutions can meet the needs of 4IR and other current changes and developments. While, the last strategy is strengthened through various programs and activities, starting from the formation of study programs, module content and industrial training up to students' graduation until graduates accept job offers from the industry.

Graduate Employability (GE) in USIM

For the last five years, the average USIM GE score is about 70.39 percent, which is below the target set by the MOHE which is 80 percent (Latib, 2019). As one of the bottom six Malaysian public universities for GE scores, USIM was awarded special GE grants by the MOHE amounting to RM1,500,960 in order to run 16 GE programs for the year 2019. As a result, USIM managed to be on the 6th rank among all 20 Malaysian public universities with the drastic two-digit (21.5 percent) increase in GE score up to 93.05 percent in 2019. The detail for the GE programs is shown in the following Table 2.

Table 2

USIM GE Programs 2019-2020

No.	GE Programs	Year	No. of Participant (Persons)	Allocation (RM)
1.	Teaching & Management of <i>Tahfiz</i> (Religious Education Institutions)	2019	125	70,000.00
2.	4th Industrial Revolution Muslim Professional Development	2019	89	92,400.00
3.	Management Executive of Islamic Institutions	2019	67	35,000.00
4.	Green Card and Landscape Architecture	2019	29	11,500.00
5.	Professional Fund Management Development (Level 1)	2019	31	34,000.00
6.	Quranic Home-Based Tutor	2019	52	30,000.00
7.	Digital Distributed Economy Workers Skills	2019	11	30,000.00
8.	Professional Real Estate Consultant	2019	25	70,000.00
9.	Shariah Compliance & Shariah Risk Management Executive Training	2019	40	49,750.00
10.	Professional Certification in Islamic Property Management & Finance	2019	35	40,000.00
11.	Islamic Financial Planner	2019	26	70,300.00
12.	3D Printer Usage Skills	2019	20	40,000.00
13.	Certified Professional Shariah Auditor Program	2019	46	138,865.00

14. Certified Ethical Cyber Security 2019 Penetration Tester	30	135,000.00
15. Certified Hazard Analysis Critical 2019 Control Point and Good Manufacturing Practice	25	123,600.00
16. Professional Halal-Shariah Executive 2019 Program	349	530,545.00
Total GE 2019 Programs	1,000	RM1,500,960
17. Certified Professional Shariah Auditor 2020 Program	97	653,800.00
18. Project Development & Strategic 2020 Management Training	138	229,886.00
19. Certified Ethical Cybersecurity 2020 Penetration Tester and Secure Application Professional	30	90,000.00
20. Shariah Compliance & Shariah Risk 2020 Management Executive Training	240	304,300.00
Total GE 2020 Programs	505	RM1,277,986
Total	1,505	RM2,778,946

Despite the significant increase in USIM GE score in 2019, COVID-19 later became the main factor to the decline in USIM GE score in 2020 to 90.2 percent with a 2.85 percent fall. Even after conducting four GE programs in 2020 with the involvement of 505 graduates (20.37 percent from 2,479 graduates), this effort is still not enough to absorb the impact of COVID-19. The detail for the GE score from 2016 to 2020 is shown in the following Table 3.

Table 3
USIM GE Scores 2016-2020

GE Score Category	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)
Employed	74.00	80.98	58.30	55.23	54.53
Furthering studies	4.60	2.80	5.10	5.60	5.10
Attending skill enhancement courses	5.10	2.00	2.80	4.00	4.00
Waiting for placement	6.50	7.27	5.90	5.50	4.60
Total GE scores	90.20	93.05	72.10	71.00	68.60
Unemployed	9.80	6.95	27.90	29.00	31.40
Total scores	100.00	100.00	100.00	100.00	100.00

A total of 505 graduates participated in all four GE programs in 2020. From this figure, 383 graduates (75.84 percent) were employed, 38 graduates (7.52 percent) were furthering their studies, 17 graduates (3.36 percent) were attending skill enhancement courses and 11 graduates (2.18 percent) were waiting for placement. There were 23 graduates (4.55 percent) who did not respond to the survey, and only 33 graduates (6.45 percent) were found to be unemployed. This indicated that all four GE programs in 2020 significantly contributed about 18.11 percent (449 out of 2,479 graduates) of the total USIM GE score 90.2 percent in 2020. The USIM GE score based on four GE programs conducted in 2020 is shown in Table 4.

Table 4

USIM GE Scores for four GE Programs in 2020

GE Score Category	Number	Percentage (%)
Employed	383	75.84
Furthering studies	38	7.52
Attending skill enhancement courses	17	3.36
Waiting for placement	11	2.18
Total GE scores	449	88.90
Not Responded	23	4.55
Unemployed	33	6.45
Total scores	505	100.00

Employment Trends During the COVID-19

It is undeniable that GE become more challenging due to COVID-19. At this point, existing factors that may contribute to GE issues including in Malaysia such as skills, willingness to work, job selection, the attitude of graduates, lecturer competencies, quality of education, ethnicity and type of academic degree are believed no longer to become major factors (Hanapi & Nordin, 2014, Jayasingam et al., 2018, Lim, 2010, Yusof & Jamaluddin, 2015). COVID-19 pandemic also caused economic and social patterns to change drastically. The order of movement control, working from home, dependence on technology as well as the implementation of virtual employment activities have to some extent changed the current labour market landscape. Therefore, existing GE initiatives and plans must be reviewed by taking into account the changes and current challenges.

In identifying current employment trends during COVID-19, several attributes were found closely related to employment trends. First, race and ethnicity were found to become part of the significant attributes that affected employment trends during COVID-19. For instance, a study on 60,000 United States households reveals that more dramatic declines in the number employed occurred in the Black or African American, Asian American, and Hispanic or Latinx groups regardless of their employment status as frontliner or not (Gemelas et al., 2022). Meanwhile, another study conducted in the United States also reveals the employment inequality among races during COVID-19 where Black workers were more likely to be employed in essential industries and in occupations with more exposure to infections and close proximity to others (Hawkins, 2020).

Moreover, gender also was found significantly attributed to the employment trends during COVID-19. In this case, women particularly are at disadvantage in getting the work during COVID-19. Based on a study in Canada from February until May 2020, it was found that women accounted for a disproportionate share of job losses and as the Canadian economy started to open back, men regained more of their employment losses than women (Qian & Fuller, 2020). Apart from being laid off at higher rates than men, women are also sacrificing their jobs to meet the increased childcare obligations at a higher rate (Fortier, 2020).

Furthermore, age also contributes to the employment trends during COVID-19. Based on study by the Organisation for Economic Co-operation and Development (OECD), it is found that occupations at higher risk of job loss during COVID-19 employed more young people. This is perhaps since younger people can more easily cushion the negative impact of the crisis by living with less affected household members (OECD, 2022).

Besides, the industry sector become another attribute that influenced the employment trends. In this case, tourism and its related industries have been identified as most affected

by COVID-19 and it directly translated into the sharp decline in employment. Meanwhile, the frontline industry sectors such as health and security have an opposite rise in employment during COVID-19. The rest of the sector presents the same story negatively influenced by COVID-19 pandemic but eventually recovers after the lockdown has been lifted (Khan et al., 2021).

However, COVID-19 does not only give a negative impact on employment. In fact, COVID-19 eventually led to a wave of earlier than planned retirements for the existing employees in the market. For instance, a study by Coibion et al. (2020) found a large increase in those who claim to be retired, going from 53 percent to 60 percent due to COVID-19 outbreaks in America. In Malaysia context. This led to the employment vacancies left by these retiring group to be filled especially by graduates.

Similarly, COVID-19 also fortunately gives a positive impact especially on the local employees when it eliminated the foreigner employment advantage (Borjas & Cassidy, 2020). In Malaysian context, about 700,000 foreign employees are forced to return to their countries and the border had been shut down (Astro Awani, 2021). Therefore, these employment vacancies left by these foreigner groups being filled especially by graduates.

In addition, career shock due to COVID-19 will initially give a negative impact on unemployment before resulting in a positive impact due over time in terms of career experiences, opportunities and outcomes. This happens as unemployed labours will have the time to re-evaluate their career trajectories or broader life aspirations (Akkermans et al., 2020). Another potentially positive outcome of COVID-19 relates to the necessity to upgrade skills and competencies, particularly with respect to the use of technology. Besides, COVID-19 may have led to an awareness of the necessity of developing more environmentally responsible behaviours. These new lifestyles could result in skills development and increased autonomy and adaptability among young people (Blustein et al., 2020).

Based on the above discussions, it is important to examine the employment trends and their attributes to ensure that efforts to help graduates can be implemented comprehensively, especially after COVID-19. Therefore, this motivates the study to examine the employment trends of USIM graduates especially for those who are being graduated in 2019 and 2020 and facing directly with COVID-19 impact on the labour market landscape after their graduation. This study is important as it will impact the future nation's human capital development especially in the Malaysian context.

Methodology

In total, 505 USIM graduates during COVID-19 pandemic period (267 graduates in 2019; 238 graduates in 2020) answered the survey. Table 5 summarises the background information of these graduates.

Table 5

Profile of Respondents

Details	Frequency (N)	Percentage (%)
<i>Graduate Year</i>		
Year 2019	267	52.9
Year 2020	238	47.1
<i>Gender</i>		
Male	134	26.5
Female	371	73.5
<i>Faculty</i>		
Faculty of Dentistry (FPG)	7	1.4
Faculty of Economics and <i>Muamalat</i> (FEM)	97	19.2
Faculty of Engineering and Built Environment (FKAB)	17	3.4
	69	13.7
Faculty of Leadership and Management (FKP)	36	7.1
Faculty of Major Language Studies (FPBU)	128	25.3
Faculty of Quranic and <i>Sunnah</i> Studies (FPQS)	9	1.8
Faculty of Medicine and Health Sciences (FPSK)	70	13.9
	72	14.3
Faculty of Science and Technology (FST)		
Faculty of <i>Shariah</i> and Law (FSU)		
<i>Employment Sector</i>		
Government	115	22.8
Private	352	69.7
Others	20	4.0
Not Related	18	3.6
<i>Employment Area</i>		
Urban	388	76.8
Rural	99	19.6
Not Related	18	3.6
<i>Salary</i>		
Below RM1,000	91	18.0
RM1,001 – RM1,500	134	26.5
RM1,501 – RM2,000	101	20.0
RM2,001 – RM2,500	55	10.9
RM2,501 – RM3,000	47	9.3
More than RM3,000	59	11.7
Not Related	18	3.6
<i>Involvement with GE Programs</i>		
Yes	154	30.5
No	351	69.5

Based on Table 5, the gap between male and female students is quite huge (47 percent), where 134 males responded compared to 371 female respondents. This is not surprising, as about 70 percent of USIM's students consist of female students (MOHE, 2021a). While, for the academic background, responses showed mixed backgrounds where graduates with social science background (FEM, FKP, FPBU, FPQS and FSU) were dominant (79.6 percent), as

compared to graduates with science background (FKAB, FPG, FPSK and FST) (20.4 percent). This reflects the composition of USIM graduates based on faculty. Besides, FKAB is newly established and FPG and FPSK are only offered to a limited number of students.

In terms of the employment sector, the majority of the graduates in this survey are working in the private sector (69.7 percent), followed by the public (22.4 percent) and other (4.0 percent) sectors. In this case, other sectors are including government-linked companies, statutory bodies and non-profit organisations. Meanwhile, for the employment area, most of the graduates have their work in the urban (76.8 percent), and the rural area (19.6 percent). It means that graduates' employment is scattered across Malaysia regardless of the location of their employers.

For salary per month, one-fourth of the graduates received between RM1,001-RM1,500 per month (26.5 percent). While, 20 percent received their salary between RM1,501-RM2,000. Another 18 percent of the graduates received below RM1,000 per month, 11.7 percent of the graduates received more than RM3,000 per month, 10.9 percent of the graduates received between RM2,001-RM2,500 per month and only 9.3 percent of graduates received between RM2,501-RM3,000 per month. This suggests that almost half of the graduates were receiving salaries below the minimum salary of RM1,500 per month (44.5 percent). Lastly, 154 graduates (30.5 percent) were previously involved with GE programs while the remaining 351 graduates (69.5 percent) are not involved with GE programs.

Meanwhile, in order to investigate the employment trends during COVID-19 for USIM graduates who are being graduate in 2019 and 2020, several questions were asked in the surveys including: (i) current employment similarity with field of study; (ii) employment changes; and (iii) reason for employment changes (MOHE, 2021a). In order to measure these questions, several types of scales were used differently for each question including dichotomous and nominal scales. Table 6 lists all questions regarding the employment trends during COVID-19 used in the study.

Table 6

Measurement for Employment Trends During the COVID-19 for USIM Graduates

Question	Measurement
Current employment with the field of study	Dichotomous scale (yes, no)
Employment changes	Dichotomous scale (yes, no)
Reason for employment changes	Nominal scale (better job, suitable job, unsatisfied salary, unsuitable working culture, end of contract, new experience)

All questions were analysed by comparing the means and one-way ANOVA. In this case, each question will be analysed with several graduates' attributes such as gender (male vs female), academic background (science vs social science), employment sector (government vs private vs others), employment area (urban vs rural), salary range (below RM1,500 vs more than RM1,500) and involvement with GE programs (yes vs no) as suggested by (Ang, 2015; Kamaruddin et al., 2021). Several other attributes such as age, race and has to be excluded from the analysis as these USIM graduates share similar characteristics for these attributes (Gemelas et al., 2022, Hawkins, 2020; OECD, 2022). Findings from this analysis will prove whether the differences in groups in each attribute tested are significant or not with employment trends.

Findings and Discussions***Current Employment with the Field of Study***

Table 7

Current Employment with the Field of Study (Comparing Means)

Attribute	Attribute Groups	N	Mean
Gender	Male	126	1.664
	Female	361	1.577
Academic background	Science	103	1.554
	Social Science	402	1.612
Employment sector	Government	115	1.235
	Private	352	1.625
	Others	20	2.000
Employment area	Urban	388	1.436
	Rural	99	1.990
Salary range	Below RM1,500	225	1.827
	More Than RM1,500	262	1.309
Involvement with GE programs	Yes	154	1.481
	No	351	1.652
Total		505	1.600

Note(s): current employment with the field of study (yes = 220@43.6 percent; no = 267@52.9 percent; not related (unemployed) = 18@3.6 percent).

Table 7 shows the current employment as compared to the field of study among USIM graduates during COVID-19. In general, the findings reveal that 52.9 percent (mean = 1.600) of graduates have different employment as compared to their field of study. For comparison between males and females, there is no significant difference (4.35 percent, mean difference = 0.087). Similarly, there is no significant difference between science and social science groups with their current employment according to their field of study (2.9 percent, mean difference = 0.058). However, there is a significant difference between government, private and other groups in the employment sector with their current employment according to their field of study. Table 7 indicates that graduates who have their employment in other sectors totally have different employment with their field of study as compared to the government sector (38.25 percent, mean difference = 0.765) and the private sector (18.75 percent, mean difference = 0.375).

Meanwhile, there is a significant difference in terms of the employment area. In this case, results show that graduates who have their employment in the rural area (27.7 percent, mean difference = 0.554) has a higher in differences between their employment with their field of study as compared to urban graduates. In terms of the salary range, there is a significant difference when graduates with a salary below RM1,500 (25.9 percent, mean difference = 0.518) tend to have higher different employment with their field of study as compared to graduates with salary more than RM1,500. While, the comparison between graduates who are involved in GE program and not is also statistically different (8.55 percent, mean difference = 0.171).

In addition, to ensure such a significant difference among these attributes' groups, a one-way ANOVA test was conducted. Based on the result in Table 8, it is confirmed that there is a statistically significant difference between each group under each attribute tested except for the academic background. In this case, the results indicate that there is no significant

difference between science and social science graduates with their current employment according to their field of study ($F(1, 503) = 0.901, p = 0.343$).

Table 8

Current Employment with the Field of Study (One-Way ANOVA)

Attributes		df	F-value	p-value
Gender (male vs female)	Between Groups	1	2.415	0.121
	Within Groups	503		
Academic background (science vs social science)	Between Groups	1	0.901	0.343
	Within Groups	503		
Employment sector (government vs private vs others)	Between Groups	3	87.480	0.000*
	Within Groups	501		
Employment area (urban vs rural)	Between Groups	2	158.396	0.000*
	Within Groups	502		
Salary range (below RM1,500 vs more than RM1,500)	Between Groups	2	196.371	0.000*
	Within Groups	502		
Involvement with GE programs (yes vs no)	Between Groups	1	10.329	0.001*
	Within Groups	503		

* $p < 0.001$

Overall, our results suggest that more than half of USIM graduates have different employment as compared to their field of study during COVID-19 outbreak. Several attributes such as employment sector, employment area, salary range and involvement with GE programs have significantly influenced on differences between current employment with the field of study as part of the employment trends during COVID-19. This is likely due to the survivability of getting employment during COVID-19 regardless types of employment as compared to their field of study. Besides, this finding also supports previous suggestions by Kinman and Grant (2020), where job insecurity is increasing rapidly and employees will work even if they are ill to show their value, loyalty and commitment to their organisation and avoid job loss.

Employment Changes

Table 9

Employment Changes (Comparing Means)

Attribute	Attribute Groups	N	Mean
Gender	Male	134	2.000
	Female	371	1.714
Academic background	Science	103	1.825
	Social Science	402	1.781
Employment sector	Government	115	1.809
	Private	352	1.727
	Others	20	1.700
Employment area	Urban	388	1.745
	Rural	99	1.748
Salary range	Below RM1,500	225	1.711
	More Than RM1,500	262	1.775
Involvement with GE programs	Yes	154	1.961
	No	351	1.715
Total		505	1.790

Note(s): employment changes frequency (no change = 124@24.6 percent; 1 time = 221@43.8 percent; 2-3 times = 134@26.5 percent; 4-5 times = 8@1.6 percent; not related (unemployed) = 18@3.6 percent).

Based on Table 9, the results show that 71.88 percent (mean = 1.790) have changed their employment at least once during COVID-19 period. Among all six attributes tested, the most significant is gender where male graduates (14.3 percent, mean difference = 0.286) are totally experiencing changes in jobs at least once during COVID-19 pandemic as compared to female graduates. This is followed by involvement with GE programs where graduates who had joined GE programs tends to have higher employment changes (12.3 percent, mean difference = 0.246) as compared to graduates who are not involve with GE programs. Besides, the employment sector where graduates in the government sector change their employment higher as compared to other sectors (5.45 percent, mean difference = 0.109) and the private sector (4.1 percent, mean difference = 0.082). However, the salary range shows no significant difference where graduate with a salary of more than RM1,500 (3.2 percent, mean difference = 0.064) tends to have higher employment changes as compared to graduates with a salary below RM1,500.

Similarly, the academic background also shows no significant difference between science and social science groups where social science graduates tend to have higher employment changes (3.2 percent, mean difference = 0.064) as compared to science graduates. Lastly, the employment area also shows no significant difference between urban and rural groups where the mean difference between these two groups is only 0.15 percent (mean difference = 0.003).

In addition, to ensure such a significant difference among these attributes' groups, a one-way ANOVA test was conducted. Based on the result in Table 10, it is confirmed that there is a statistically significant difference between each group under each attribute tested except for the academic background. In this case, results indicate that there is no significant difference between science and social science graduates with employment changes ($F(1, 503) = 0.672, p = 0.413$).

Table 10

Employment Changes (One-Way ANOVA)

Attributes		df	F-value	p-value
Gender (male vs female)	Between Groups	1	36.183	0.000*
	Within Groups	503		
Academic background (science vs social science)	Between Groups	1	0.672	0.413
	Within Groups	503		
Employment sector (government vs private vs others)	Between Groups	3	50.824	0.000*
	Within Groups	501		
Employment area (urban vs rural)	Between Groups	2	74.203	0.000*
	Within Groups	502		
Salary range (below RM1,500 vs more than RM1,500)	Between Groups	2	75.938	0.000*
	Within Groups	502		
Involvement with GE programs (yes vs no)	Between Groups	1	28.749	0.000*
	Within Groups	503		

*p < 0.001

Overall, our results suggest that more than 70 percent of USIM graduates have changed their employment at least once during COVID-19 outbreak. Only two attributes which are involved with GE programs and the employment sector have significantly influenced employment changes as part of the employment trends during COVID-19. Therefore, this finding proved that GE programs conducted are giving a positive impact on increasing GE among graduates to find better employment especially after getting their professional certification through GE programs. Moreover, the finding also shows that graduates in the government sector tend to have higher employment changes before entering the sector, perhaps due to job security in the government sector as compared to the private and other sectors. This is similar to findings by Fana et al. (2020) and Webb et al. (2020) where sectors like essential and government are more stable as compared to other sectors during COVID-19.

Reasons for Employment Changes

As the finding indicates that the majority of USIM graduates had change their employment at least once during COVID-19, this study analysed the reasons for such employment changes. In general, the data indicate that 56.2 percent (204 out of 363 graduates) of graduates change their employment for a better job. This is followed by for more suitable job (16.2 percent, 59 out of 363 graduates), unsatisfied salary (13 percent, 47 out of 363 graduates), unsuitable working culture (8.8 percent, 32 out of 363 graduates), end of the contract (5 percent, 18 out of 363 graduates) and to gain new experience (0.8 percent, 3 out of 363 graduates). The details are shown in the following Table 11.

Table 11

Reasons for Employment Changes

Reasons for Employment Changes	Frequency (N)*	Percentage (%)
Better Job	204	56.2
Suitable Job	59	16.2
Unsatisfied Salary	47	13.0
Unsuitable Working Culture	32	8.8
End of the Contract	18	5.0
New Experience	3	0.8
Total	363	100

Note: Exclude no employment changed and unemployed respondents (N = 142).

Based on the above Table 11, the results support previous findings that the millennial graduate generation tends to a flexible working style, short waiting time, high salary offers as well as bright career development as the criteria in the searching job (MOHE, 2021b). Besides, this finding also supports a previous survey that about 60 percent of current graduates are choosing a job and company which became one of the main causes of failing to obtain employment (Jobstreet, 2018). Moreover, the least reason is to gain new experience which indicates that these millennial graduate generations are not ready to do challenging jobs and unwilling to do dirty jobs even during crises like COVID-19.

Conclusion

This survey calibrates the impact of COVID-19 on the employment trends of USIM graduates who are being graduate in 2019 and 2020. This includes current employment with the field of study, employment changes frequency as well as reasons for employment changes. In short, the majority of USIM graduates have different employment as compared to their field of study and have changed their employment at least once during COVID-19.

In terms of comparison among graduates' attributes towards current employment with the field of study, graduates who are working in other than the government sector, rural area, salary below RM1,500 and are not involved with GE programs tends to have higher differences in employment as compared to the field of study as part of the employment trends during COVID-19. Meanwhile, for employment changes frequency, the result indicates that only male graduates, graduates who are involved with GE programs and working in the government sector have higher employment changes frequency as part of the employment trends during COVID-19. Further, among the main reasons for employment changes among graduates during COVID-19 are including to look for a better job, suitable job and more satisfactory salary.

Based on findings on employment trends during COVID-19, it is believed that graduates experience difficulties in finding a suitable job in their field of study and need to accept any available employment vacancies for survivability. Similarly, graduates with different employment scopes as compared to their field of study often receive salaries below the minimum salary guideline (RM1,500). In addition, graduates who are working in rural areas also difficult to have a match between employment and field of study due to the closure of many businesses during COVID-19. Moreover, graduates also tend to choose the government sector is much likely due to job security concerns. Lastly, graduates who are involved with GE programs are more competitive in getting suitable as compared to those who are not involved with GE programs previously.

The findings on employment trends during COVID-19 derive several implications and recommendations. First, every university especially USIM need to update their career development programs for graduates by inculcating the current industry update especially on 4IR and new norms of working culture post COVID-19. This includes having adequate preparation of mental, physical, emotional and skills as well as the capability to work independently with minimum supervision as result of COVID-19 pandemic challenges. Second, USIM also needs to empower entrepreneurial career apart from the existing career. As employment nowadays are difficult and challenging especially after COVID-19, entrepreneurship will become new opportunities for graduates to be explored. This is in line with the Malaysia's appreciation for graduates to become job creators rather than job seekers. Third, involvement with GE programs among graduates needs to be more extensive. As findings show the significant impact of GE programs on employment opportunities among graduates, the number of GE programs must be added and covering as many as possible incoming graduates. Lastly, by looking into the decreasing trends of getting grants for GE programs from the government between 2019 and 2020, USIM needs to raise funds independently to continue this initiative. Perhaps by strengthening the cooperation between USIM and strategic industry partners as well as potential philanthropists will preserve the initiative as the main key to supporting GE programs in the future.

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