

The Impacts of the Training Programme and Education Achievement on Job Opportunities: A Big Data Analytics

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Abstract: Job opportunities are important for humans to earn economic value to sustain daily life. However, some people are unemployed, and some are unhappy with their current job. Job opportunities raise concern and attention from young people to ensure that they can have financial freedom and a lifestyle with a work-life balance. These studies examined the relationship between job opportunities with training programmes and education achievement using the large ICPSR dataset (>90,000 sample sizes). The relationship between the independent variables and the dependent variables are analysed, along with the mediating variables, which include the CGPA and rate of pay. Three data sets are merged, cleaned and transformed using IBM SPSS 23.0 and PROCESS Macro. The results showed the pattern that the training programme and education achievements positively impact job opportunities. The results of the mediation analysis show that the CGPA only mediates the positive relationship between educational achievement and job opportunities. Furthermore, the rate of pay as a mediator also is positively related to training programmes and job opportunities. This study is important in increasing the initiative of the people involved in the training programme and in achieving a higher level of education to secure better employment opportunities.

Keywords: Training program, Education achievement, Job opportunities, Bivariate analysis, Pearson correlation

INTRODUCTION

Barack Obama, the former president of the United States, once said that "Change will not come if we wait for some other person or some other time. We are the ones we have been waiting for. We are the change that we seek." In the same way, employment would not knock on the door of the individual if the individual itself does not make any effort in getting employment. Some keep on hopping from one job to another, while the rest of the population is desperately looking for a job. Why is it happening? It is because one's educational background and skills. The term skill describes the ability to do something unique. Meanwhile, education does not discontinue providing one with basic wisdom, but also with the knowledge to become autodidactic. Why is it important to have skills and education? Even basic jobs such as food servers need the basic skill of memorising all the customer orders. What is more if it is a sophisticated job. This is mainly due to the high aspirants out there looking for jobs, and emerging technology has joined the competition now. So, an individual needs to bend over backwards for him to be employed in a long-lasting job.

Unemployment has always been a global issue. An approximately 75 million young people were unemployed in many developing countries during the year 2020 (Fajaryati et al., 2020).

Most employers and job candidates are expected of having education, training in expertise, the ability to cooperate with colleagues, the ability to communicate with each other in a team, the ability to solve problems and the knowledge of information technology as the world becomes digital (Fajaryati et al., 2020, Asokan et al., 2022; Ting et al., 2023). There are some obvious factors that affect one's employability. First, recruiters may prefer gender-based employees in a company due to job criteria such as precarious working conditions (Menéndez-Espina et al., 2020). Precarious working conditions are usually not preferred by women, as it requires more energy than their capacity. Second, the courses studied also play an important role in one's employment. Particularly when one works in a particular field, but is trained and studied in another field, it causes a horizontal education-job mismatch (Salas-Velasco, 2021). For example, a doctor can work as a pharmacist due to the high supply of physicians in a country and because of similar subjects that they have studied. Then the cumulative grade point average (CGPA) of a graduate is also considered during recruitment, as a higher CGPA usually indicates how knowledgeable and dedicated an individual is (Soon et al., 2020). Training enrolment and educational background also play a significant role in one's vocation.

Nowadays, employers have become more difficult to find a workforce with quality education and training skills (Oswald-Egg & Renold, 2021). It is because the employee without a qualifying education and training to fulfil the company's criteria may drag down the productivity and image of the company by being inefficient. In addition, an employee who does not have a minimum education qualification might feel less confident when assigned to complete work that is beyond their capabilities. Furthermore, due to the increasing proficiency among job seekers, the minimum requirements for the company to employ a person have also increased. Thus, recruiters do not only stop with reviewing one's educational background but also other criteria, such as the training programmes in which one had enrolled, volunteering activities, and the individual skills that one possesses.

During the Covid-19 crisis, the frailness of the job market clearly showed the importance of educational achievement and the importance of training programmes to secure jobs. Many Malaysians are being put out of work in this global downturn because uncountable businesses closed, and factories stopped operating due to the unpredictable extended movement control order (MCO). Young workers are vulnerable in times of economic crises because they mostly have low educational levels, as teenage job seekers aged 15 to 19 are almost 1.7 times more likely to be jobless than young adults aged 20 to 24. Some educational institutions provide outdated teaching, which often makes graduates unemployable due to deficiencies in professional skills, so they cannot adapt to the latest demand on the job (Bridget & Calvin, 2020).

Some unemployed job seekers lack skills such as writing, verbal communication, and problem solving. Therefore, a training programme is a way to train unemployed job seekers and prepare them with better resumes. People who are not academically excellent, but enjoy doing hands-on work, usually join the Technical and Vocational Education and Training (TVET) program. Formal and informal learning help young people to have better job opportunities in different industries by providing the qualification awarded by the Department of Skills Development in Malaysia and is also accredited by the Malaysian Qualification Agency (MQA). Studies related to industry practises and occupational standards, such as National Occupational Skills Standards (NOSS), also strengthen the ability of employees to secure job opportunities because they have practical skills and are exposed to industrial training compared to peers without any educational background (TVET, 2020).

This research provides insight into why a job seeker must have educational achievement and experience in training programmes to obtain job opportunities. The impact of educational achievement and training programmes can be shown through the result of employment. Research can provide sufficient evidence to support the idea that the importance of getting higher education achievement and participation in many useful training programmes have a positive relationship with job opportunities that may increase the result of getting better job opportunities with higher salaries and positions.

LITERATURE REVIEW

Higher education has always been regarded as a currency of opportunity in the world. If we compare it with the past, the percentage of student enrolment in universities in recent times has increased vigorously. As proof, the percentage of student enrolment has expanded during the past few years, and the organisation of UNESCO showed that the percentage of enrolment for both genders also increased by time. In 2000, both genders had an enrolment of 19%, but when in 2018, men's enrolment increased to 36% and women's enrolment went to 41%. It showed that higher education is more accessible to people (UNESCO, 2020). Also, the data show that the number of university graduates that have been produced by universities in China has 8.3 million students in 2021, of which more than half earned a bachelor's degree, clearly showing the increasing enrolment for education (Textor, 2022). This shows that education matters for the individual's personal growth. To get an education, students even take the initiative to migrate from rural areas to the cities where universities are located.

There is evidence that the demand for postgraduate education is growing as graduates believe that long-term economic growth and bases of creation in a fast-evolving economy need continuous input for the latest knowledge.

Graduates with ample competence can stand a chance of successfully creating, sustaining, and transforming new scalable businesses instead of being replaced by technology. For example, entrepreneurship education (EE) in universities can encourage students to step out of their comfort zone to explore self-employment (Lu et al., 2021). Students are strongly encouraged to join the student-entrepreneur training programme during university life because it can help Student-run businesses starting from campus and some of them are counted as entrepreneurs. They continue their business after graduation through entrepreneurial motivation, intentions, and competencies.

Furthermore, education plays a crucial role due to its various fields of knowledge. This is because education is a tool that increases understanding skills and problem-solving skills (Bojadjeva et al., 2022). Problem-solving skills are crucial when it comes to the workplace because the problem we are facing needs to be analysed and the root cause of the problem and solution for it must be discovered. Also, problem-solving skills can only develop when one studies because that is when one is likely to think and apply the skills learnt in different situations, as one would encounter different types of problem when studying. Moreover, the need for lifelong learning has been essential rather than non-compulsory, as the current technological world is continuously evolving (Bernatonyte et al., 2019). Only with education does a job seeker can develop and improve his intellectual skills (Mukminin et al., 2020). Furthermore, as everyone knows, many people fear the establishment of digital technologies such as robotics and artificial intelligence (AI) that are making people's lives easier and more efficient as it has the potential to replace the current workflow and workforce (Balsmeier&Woerter, 2019). In a nutshell, there is nothing that can rescue us from getting unemployed except ourselves, who manages to increase our education achievement and enrolment in training programmes.

Since society is now facing the issue of too many contestants holding higher education achievements chasing too few prized jobs, employers are prioritising those with the same education achievement by referring to the training that the graduates enrolled in. Therefore, we can see that many families and young people are investing more effort in education and training programmes. For example, Work-integrated learning (WIL) is related to the embedding of learning activities and assessments in industry and the community, such as internships, placements, and practicums that engage more students (Wood et al., 2020). It can increase the value of becoming employed with better job opportunities because the skills learnt from education and training can sharpen your resume for graduate employment. In the theory of job competition, employers will consider recruiting workers with high trainability based on their previous training performance. Employers will expose the graduate to current practise and visualise the employees applying theoretical learning from studies and beyond education (Fergusson & van der Laan, 2021).

In short, the greater development of human knowledge, skills, and abilities is considered a required element for a productive workforce (Kar & Coskun, 2020).

In this evolving world with ambitious people, education achievement and training programmes play a crucial role in getting a job opportunity. To compete with the rest of the job seekers, one must have a proper education and training qualification. In addition, recruiters expect some additional skills from job seekers. Here, the training programmes become helpful. Training programmes ensure that recruiters are eligible enough to perform their work, as they have minimum experience and understanding of the work, rather than nothing, when they are recruited (Khan & Abdullah, 2019). Furthermore, recruiters generally prefer to recruit people who had work experience or joined training programmes, as it will benefit their company by increasing their productivity and also reducing training costs (Oswald-Egg & Renold, 2021). For example, every teacher has been educated equally using the same syllabus, but what matters is the teaching method they use, it is the element that makes it strange and easier to get recruited, but for this, every teacher must have joined a training programme which will develop their personality skills, attitude, and habits (Khan & Abdullah, 2019).

The failure of higher education institutions to adequately prepare graduates for the realities of professional practise is frequently condemned by the nation (Abelha et al., 2020). Thus, training is provided before people go out to work. Training can qualify and prepare graduates ready to enter the working world with quantifiable skills, abilities, knowledge, and behavioural attitudes to increase the effectiveness and efficiency of their work (Niati et al., 2021). There are plenty of job opportunities provided by Non-Governmental Organisations (NGOs), the private sector, as well as the government sector for graduates. If graduates are not interested in working in different sectors, they can choose to work in training and skill-based work, such as agriculture, or self-employment in the area they are interested in (Zain et al., 2021). Employability is not simply visualised as getting a job but is perceived beyond it as it describes one as having a set of quality skills, achievements and knowledge that makes them successful while contributing to the community's gain (Abelha et al., 2020). To be precise, academic institutions are not only limited to producing quality students for employability, but also to ensure that their skills and knowledge could contribute to the gain of the community (Cheng et al., 2022).

The practise of having two or more jobs that work full-time or part-time at the same time, which normally can be paid for by employees or self-employed, is considered as multiple jobholding. In common, multiple job holders will be self-employed, or young adults because multiple job holders are required to have more total working hours compared to single job holders (Fulford & Statistics Canada, 2020). Literally, education achievement is the key factor that decides which job an individual deserves.

Similarly, the number of jobs will decide the monthly salary of the individual. Because the full-time job is more promising with a stable income, while the part-time job is usually not permanent, as if someone else has a higher competency level than the mentioned individual, then it is more likely that he or she will lose the job as well as the salary (Liu et al., 2022). The report showed that almost 20% of workers have multiple jobs, which is three times higher than the Statistics Canada estimates in 2019, so it reveals that multiple jobs likely have shorter work hours in secondary employment (Glavin, 2020). Additionally, due to the fluctuating demand for workers due to technological evolution, a company may hire some temporary workers for a limited period of time using a time-based employment contract (Ritter-Hayashi et al., 2021). Therefore, the permanent employee has more benefits compared to temporary workers; such benefits would be promotion, insurance, bonus, difference in wages, and also training even though their work is more challenging and better than the permanent employees (Golden, 2020). Therefore, a person must master an area of knowledge that is different from being the 'jack of all trades, master of none' for the long-term well-being of the individual. One person becomes a part-time employee only because they lack the knowledge and skills in a specific area of knowledge; thus, to continue their daily life, they work one or multiple part-time jobs (Golden, 2020). In terms of gender, the article related to West Germany has indicated that female workers are more likely to have multiple jobs (Klinger & Weber, 2020). There are even individuals who invest their time and money to broaden their knowledge in a specific area of study for betterment and higher salary (Alsulami, 2018). In addition, the type of job an individual is doing will ease the task of job transfers. This is because if one has been a full-time employee previously, the individual will more likely know how the workflow of a company is while leading them with higher competency during a job interview.

CONCEPTUAL FRAMEWORK

The conceptual framework has been constructed based on the literature review and the variables used in the research (Figure 1). There are indirect and direct paths between each independent variable and the dependent variable. The study shows that independent variables directly and indirectly affect dependent variables. Here, the dependent variable is employability. The independent variables are training, gender, education, and the courses studied. While mediators that have been associated here are the Cumulative Grade Point Average (CGPA) and Current Job Count. If the mediator is associated with the relationship between the independent variable and the dependent variable while indirectly impacting the dependent variable, then it is an indirect relationship. Meanwhile, if the indirect variable is directly associated with the dependent variable, then the independent variable directly influences the dependent variable. For example, direct relationships show that the variable gender directly influences employability.

The indirect relationship would be when the variable gender affects the mediator CGPA and the CGPA indirectly influences employability. The hypotheses for this study are constructed as follows:

- H1:* There is a positive relationship between training enrollment and employability.
- H2:* There is a mediating role of the CGPA in the relationship between training enrollment and employability.
- H3:* There is a mediating role of the Current Job Count in the relationship between training enrollment and employability.
- H4:* There is a positive relationship between education and employability.
- H5:* There is a mediating role of the CGPA in the relationship between education and employability.
- H6:* There is a mediating role of the Current Job Count in the relationship between education and employability.
- H7:* There is a positive relationship between gender and employability.
- H8:* There is a mediating role of the CGPA in the relationship between gender and employability.
- H9:* There is a mediating role of the Current Job Count in the relationship between gender and employability.
- H10:* There is a positive relationship between the course studied and employability.
- H11:* There is a mediating role of the Current Job Count in the relationship between the course studied and employability.
- H12:* There is a mediating role of the CGPA in the relationship between the course studied and employability.

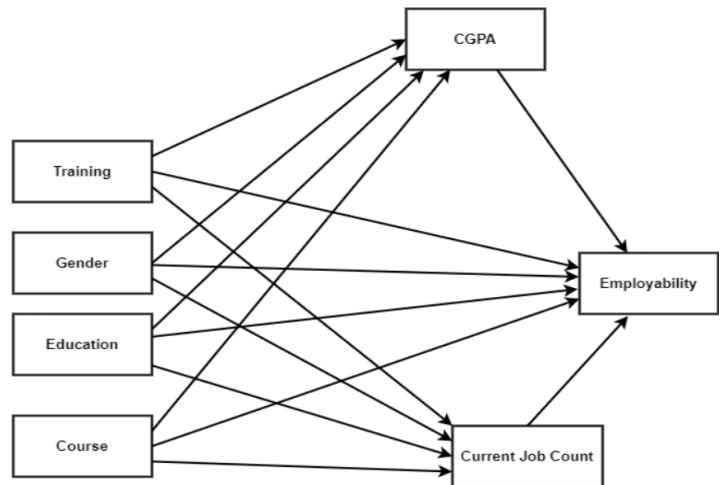


Figure I Conceptual Framework

METHODOLOGY

ICPSR, which is known as the International Consortium for Political and Social Research, is one of the leading consortiums in maintaining a total of more than 250,000 research files in the field of social and behavioural sciences.

ICPSR also provides leadership and drill in data access, curation, and analysis styles for the social science research community. The samples can then be obtained by the researchers for free to perform data cleaning, transformation, curation, and data analysis (ICPSR, 2023). In our research, three ICPSR Wave III datasets (DS0008 - demographic, DS0016 - education, and DS0017 - graduation) from the dataset 21600, National Longitudinal Study of Adolescent to Adult Head, have been used in this research. They are merged and cleaned by using SPSS as shown in Figure II adopting methodology from Ting et al. (2022) research.

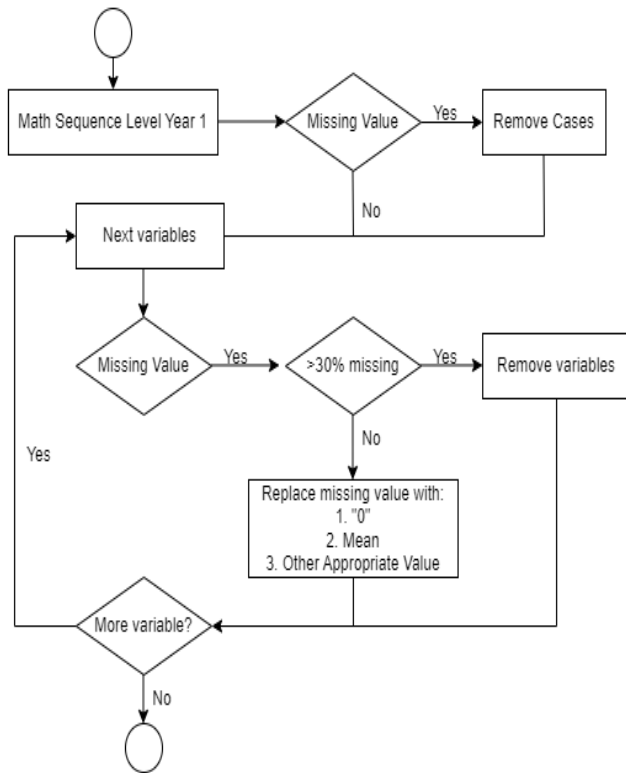


Figure II Dataset Cleaning and Transformation Process

The variables are measured according to their type of data, either quantitative or qualitative. We collect the variables and divide them into four categories which are discrete (nominal, ordinal) and continuous (interval and ratio). We use two ICPSR datasets (DS0008 - demographic and DS0016, education) in the research. There are 13 variables from the dataset which consist of 10 variables from the demographic category and 3 variables from the education category have been used.

Based on the variables collected in the database, we will think about the relationship between the variables to identify the independent and dependent variables. Those independent variables will affect the dependent variable. The cause of the change between the variables will be discussed among the researchers. The selected variables are based on whether they are significant by using SPSS software. After knowing the effect between the independent variable and the dependent variable, we will continue to find out the mediator which could influence the variables as shown in Table 1 (appendix).

IBM SPSS 23.0 is used for the data analysis in the research. We use the bivariate correlation to verify the significance of the variables. First, we will select the main dependent variable that we want to focus on. Next, we select the independent variables that we assumed, and thought will affect the dependent variable. The IBM SPSS will generate a table to clearly show the statistical significance of the variables and we will select the variables that have a significant value of less than 0.05. For the mediator variable, we use mediation analyses that use the indirect effect among the variables. Then we calculated the descriptive statistics and correlations between the variables. The calculation further indicates the significant indirect effect, which is mediation, when the confidence interval does not contain 0.

RESULTS

A. Demographic

A total of 3915 valid responses were derived after data cleansing and transformation according to Table II. There is a proportion of gender among the total valid data, which shows that 46.4% of the responses emanated from males while 53.6% of the responses were from females. Moreover, more than the majority of respondents, which is 87.2% are holding a minimum education of a high school diploma certificate as their educational achievement. Then, the percentage of respondents who have had any experience in working is 97.6% while the percentage of respondents who currently still work is 75.5%. Meanwhile, 3.0% of the respondents have been involved in welfare job training, 38.8% of the total respondents have been involved in vocational training, and 22.6% of the respondents have enrolled in job training. Other than this, 61.5% of the respondents are currently having at least one paying job, while 8.5% of the respondents have more than one job. This leads to the main purpose of the study which is to explore the impacts of training and education achievement on employability.

TABLE II
DEMOGRAPHIC OF THE RESPONDENTS.

		Frequency	Percentage
Gender	Male	1816	46.4
	Female	2099	53.6
Training	Enrolled in SOC/SVCS/Welfare Job Training	116	3.0
	Enrolled in School/VOC Training	1518	38.8
	Attended VOC/JOB/Training	885	22.6
Education	Bachelor Degree	471	12.0
	Diploma	3414	87.2
	JR COL Degree	322	8.2
Current Job Count	0 Job	1175	30.0%
	1 Job	2406	61.5%
	2 Job	297	7.6%
	3 Job	32	0.8%
	4 Job	5	0.1%
Employability	Currently have a job	2954	75.5
	Ever had a job	3820	97.6
Total Respondents		3915	

Based on the result in Table III, it is revealed that the direct relationship between training enrolment and employability is significant with a value of 0.002**. This indicates that there is a positive relationship between training and employment, but training is also positively correlated with employability. This indicates that H1 is true and acceptable. Meanwhile, the study conducted also reveals that the direct relationship between education and employability is significant with a value of 0.000** also they correlate positively. This indicates that there is a positive relationship between education and employment. This indicates that the H4 is confirmed and sufficient to be accepted. The direct relationship between gender and employability is significant with a value of 0.001** and implies that training is positively correlated with employment. This indicates that there is a positive relationship between gender and employment. This indicates that H7 is confirmed and sufficient to be accepted. Furthermore, it is revealed that the direct relationship between the course studied, and employability is not significant with a value of 0.002 and implies that the course is also positively correlated with employability. This indicates that there is no positive relationship between the course studied and employment. This indicates that H10 is confirmed and sufficient to be rejected.

TABLE III
PEARSON CORRELATION RESULTS. * P < 0.05

Predictor	Dependent Variable	Direct Effect
Training	Employability	0.002**
Education	Employability	0.0000**
Gender	Employability	0.001**
Course	Employability	0.002**

Meanwhile, TableIV disclosed that the CGPA partially mediates the relationship between training and employability with an indirect effect of 0.0051 and a 95% confidence interval value of [0.0021, 0.0085]. Therefore, the H2 is true and acceptable. The Current Job Count partially mediates the relationship between training and employability with an indirect effect of -0.02761 and a 95% confidence interval value of [-0.0448, -0.0103]. This indicates that H3 is not true and rejected. Because the relationship is not significant, which notifies that p is not less than 0.05. CGPA is found to partially mediate the relationship between the independent variable of education and the dependent variable of employability with an indirect effect of -0.0022 and a 95% confidence interval value of [-0.0181, 0.013]. This indicates that H5 is true and acceptable. The results of the study also revealed that the Current Job Count partially mediates the relationship between education and employability with an indirect effect of 0.0549 and a 95% confidence interval value of [0.0367, 0.0739]. This indicates that H6 is true and acceptable. On the other hand, CGPA partially mediates the relationship between the independent variable of gender and the dependent variable of employability with an indirect effect of 0.0132 and a 95% confidence interval value of [0.0063,0.0208]. This indicates that the H8 is true and acceptable. The result in Table IV also shows that the current job count partially mediates the relationship between gender and employability with an indirect effect of -0.0224 and a 95% confidence interval value of [-0.0432, -0.0015]. This indicates that H9 is true and acceptable. Current Job Count partially mediates the relationship between the course studied and employability with an indirect effect of 0.00354 and a 95% confidence interval value of [0.0000, 0.0069]. This indicates that the H11 is not true and to be rejected as the significant level of the relationship, p is not less than 0.05.

Lastly, CGPA partially mediates the relationship between the independent variable of the course studied and the dependent variable of employability with an indirect effect of 0.0041 and a 95% confidence interval value of [-0.0007, 0.0089]. This indicates that H12 is true and acceptable.

**TABLE IV
PROCESS MACRO RESULTS.**

Predictor	Mediator	DV	Direct Effect	Indirect Effect
Training	CGPA	EY	-0.0417**	0.0051(0.0021, 0.0085)
Education	CGPA	EY	0.1048**	-0.0022(-0.0181, 0.0131)
Gender	CGPA	EY	-0.0633**	0.0132(0.0063, 0.0208)
Course	CGPA	EY	0.0033	0.0041(-0.0007, 0.0089)
Training	JC	EY	-0.0091	-0.0276 (-0.0448, -0.0103)
Education	JC	EY	0.0477**	0.0549(0.0367, 0.0739)
Gender	JC	EY	-0.0277*	-0.0224(-0.0432, -0.0015)
Course	JC	EY	0.0038*	0.0035(0.0000, 0.0069)

*note: JC = current job count. results based on 5000 bootstrap samples; ci-bias corrected 95% confidence interval for the indirect effects. * p < 0.05; ** p < 0.01. EY-Employability*

DISCUSSION

Based on the H1 result. Training enrolment is positively correlating with employability, as the direct effect is negative. In other words, this indicates that when training enrolment increases, employability will increase. Individuals who participate in training programmes may have the opportunity to increase their employment skills and knowledge in the field of their work. For example, they may lack the work experience or education that employers value. Additionally, training plans can be invalid or improperly designed, resulting in negative results for participants. According to Oswald-Egg and Renold, 2021, vocational education training (VET) is also positively related to employment (Oswald-Egg & Renold, 2021).

The H2 result shows that the CGPA mediated relationship between training enrolment and employability was positively correlated as it has a positive indirect effect. The CGPA plays an intermediary role in the relationship between training enrolment and employability, which shows that students with more training skills are bound to have a higher CGPA, which will indirectly increase their employability. According to Ahmad et al., in 2020, the more students use the internet to learn new skills and train themselves, their CGPA will also increase progressively (Ahmad et al., 2020).The H3 result shows that the current job count mediated in the relationship between training enrolment and employability was negatively correlated, as the indirect effect is negative. It shows that individuals who are currently employed may have better employment opportunities even if they have a low level of training registration. There is evidence that training does not increase the employability of a person and does not increase the number of jobs a person has (Shin et al., 2020). Meanwhile, results of H4 results confirm that the correlation rate between education and employability is positive.

This means that people with higher educational levels are more likely to be employed. Higher education may provide individuals with the knowledge, skills, and abilities they need to succeed in the job market and show their commitment level and learning ability to employers. The study suggests that a student with a higher GPA throughout the semester has the tendency to find employment opportunities in the field of study (Thies, 2022).The H5 result shows that the CGPA mediated relationship between education and employability was a negative correlated rate. The higher education level leads to higher employability, which can be explained in part by the influence of CGPA on employability. Therefore, having a higher CGPA can increase the employment opportunities of people with higher education. The study mentions that students with lower CGPA are usually affected due to certain variables such as parental income, marital status, and more which will cause a student to dropout and eventually cause them to have minimal opportunity of employment (Nurmalitasari et al., 2023).

The results of H6 show that the correlation rate mediating the role of the current job count in the relationship between education and employability is positive because it has significant value. So, it means that having a higher education level can increase the number of employment opportunities one can have, which will eventually affect their employability. Compared to a study that mentions that having a wide knowledge in different areas of fields is a benefit for them to have multiple current jobs also known as part-time jobs, as it will increase the chances of employability and of the experience of employment (Järvensivu&Pulkki, 2020).The H7 result shows that the correlation rate between gender and employability is negative. A person's gender is inversely proportional to their employment ability. Compared to individuals of another sex, people of a specific sex may have a lower employability.

The economy of this society is gradually declining, and we have also studied that job opportunities in various sectors have gradually declined, and most women's employment opportunities are very low (Gavriliuță et al., 2022). The H8 result shows that CGPA mediated in the relationship between gender and employability was negatively correlated as it has a positive indirect effect. The mediator role of CGPA showed that higher CGPA scores may lead to higher levels of employment and for individuals of any sex will also be able to score higher CGPA, but females will have lower employability than men directly. However, a study shows that specific genders have a strong association with peers' academic performance. In other words, the academic performance of men is higher than that of women (Zakaria et al., 2019).

The H9 result shows that the current job count mediated in the relationship between gender and employability was negatively correlated as the indirect effect is negative. Current job counts as mediator showed that compared to men who do the same number of jobs, women who do a variety of jobs have lower employability. According to a research, women perform better in education and have higher academic performance compared to male students as they have higher emotional intelligence, which will lead them to gain more in their life and job opportunities, as they can multitask very well (Ibrahim & Wah, 2020). Based on the result of H10, the course studied is positively correlating with employability, as the direct effect is positive. In other words, this indicates that when the individual studies a more work-related course, the employment opportunities will increase. The study supports the hypothesis and results with the fact that various work-related courses help and ensure that one studies the course with an employment opportunity (Mukhtyar et al., 2022). The result of H11 shows that the CGPA mediated in the relationship between the study course and the ability to work was positively correlated, as it has a positive indirect effect, but it is not significant. CGPA plays an intermediary role in the relationship between courses studied and employability, which shows that students with more knowledge in the course studied are bound to have a higher CGPA which will indirectly increase their employability. However, compared to a study that notifies that the course does not affect the CGPA, which will indirectly affect employability (Nwamaradi, 2010). Finally, The H12 result shows that the current job count mediated in the relationship between the course studied and employability was positive correlated as the indirect effect is positive. It shows that individuals who are currently employed may have better employment opportunities when they studied in related courses. There is evidence that the courses studied increase the employability of one and increase the number of jobs one person holds (Shin et al., 2020). It means that the combination of education and work experience can make individuals more attractive to their employers and increase their chances of finding jobs.

CONCLUSION

Based on the results of the analysis, it can be concluded that the training programme and the achievement of education can affect the employment opportunities. However, this research also has some limitations. For example, funding issues. A company that cannot provide training programmes to employees due to insufficient funds will cause employees to lack motivation to work and the workload will be reduced because they do not have enough understanding of how the company operates. Also, manpower issues. The company will require employees to work in their respective positions due to lack of manpower, which will result in inexperienced employees such as novice employees unable to participate in training programmes, and inexperienced employees unable to perform any work at their workstations. After that, there is lack of knowledge. Limited knowledge can cause people to miss out or have lower employment opportunities. This is because employers do not want to pay high salaries to hire employees who lack specific knowledge in the relevant field. People who lack knowledge in a certain field cannot help companies achieve ideal performance and productivity. After that, education achievement is too low. Among the two choices of continuing to study and work, many people today will choose to enter social work early to earn living expenses and improve their quality of life. But the lower education level leads to fewer jobs for them to choose because most jobs will give priority to people with higher education. Therefore, people with low education need to spend more time and energy looking for employment opportunities.

From the above research, more effective methods can be adopted to improve employment opportunities. For example, the government can improve the educational curriculum so that the level of education can be compared with that of foreign countries. Advanced knowledge allows everyone to have more professional knowledge in their familiar fields. Professional knowledge can greatly enhance your employment opportunities. In addition, companies can improve employment opportunities by improving professional training programmes. For example, invite some professional seniors in the company or seniors with professional knowledge in the industry to transfer some important materials or knowledge to novices. Then, people should do their best to improve their knowledge base. They can improve their cultural level and knowledge level by continuing to study. Higher education achievement can help them to have more job opportunities because they are familiar with the knowledge required in the field, and this knowledge can help companies achieve higher productivity.

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APPENDIX

TABLE 1
CATEGORIZED VARIABLES BY QUESTIONNAIRE TYPE.

Datasets	Variable	Questionnaire Type	Questionnaire
DS0008 Demographic	Training	H3ED43 ATTND VOC/JOB/TRAINING	Since the summer of 1995, have you received any vocational education or job training in a program that lasted or will last for at least three months? 0-No;1-Yes
		H3LM37 SOC/SVCS/WELFARE JOB TRAINING	At any time in the past 12 months, did social services or a welfare office provide job training, a Job Club, a job search program, or anything else to help you try to get a job? 0-No;1-Yes
		H3DA36 Enrolled School/Voc Training	Are you currently enrolled in school or in a job training or vocational education program? 0-No;1-Yes
	Employability	H3DA28 Currently have a job	Do you currently have a job? 0-No;1-Yes
		H3LM1 Ever had a Job	Have you ever had a job? Don't count being in the military and don't count jobs such as babysitting or lawn mowing unless you were working for a business. 0-No;1-Yes
	Current Job Count	H3LM14 Number of current Pay Jobs	At how many jobs are you now working for pay? 0- 0 Jobs; 1- 1 Job; 2- 2 Jobs; 3- 3 Jobs; 4- 4 Jobs;
	Education	H3ED4 Has received JR COL Degree	What degrees or diplomas have you received? Associate or junior college degree--an AA 0-Not marked;1-Marked
		H3ED5 Has received Bachelor's Degree	What degrees or diplomas have you received? Bachelor's degree--a BA, AB, or BS 0-Not marked;1-Marked
		H3ED3 Has received HS Diploma	What degrees or diplomas have you received? High school diploma 0-Not marked;1-Marked
	Gender	BIO_SEX3 Biological Sex	Respondent's Gender 1- Male;2-Female
DS0016 Education	Course	EAMSQBH Highest Math Level (credit) All year	B Version: Ordinal variables that represent the highest level math course for which a student received credit in each year (EASMSQB1-6), and the highest level math course for which the student received credit by the end of high school (EAMSQBH). 0-No math;1-Basic/remedial math; 2-General/applied math; 3-Pre-algebra; 4-Algebra I; 5-Geometry; 6-Algebra II; 7-Advanced math; 8-Pre-calculus 9-Calculus
		EASSQH Highest Science level Taken in all year	Ordinal variables that represent the highest level science course taken in each year of students' high school course taking (EASSQ1-6), and the highest level science course taken by the end of high school (EASSQH). 1 - Basic/remedial science; 2 - General/earth science; 3 - Biology; 4 - Chemistry; 5 - Advanced Science; 6 - Physics
	CGPA	EAOGPAC Cumulative GPA across all years	Overall GPA for all courses taken in each year (EAOGPA1-6) and cumulatively (EAOGPAC). N/A