Factors Influencing Unemployment among Graduates in Malaysia during the Covid-19 Era

By

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DECLARATION

I at this moment declare that this research project is based on my original work except for quotations and citations that have been duly acknowledged. I also declare it has not been previously or concurrently submitted for any other degree at Universiti Tun Abdul Razak (UNIRAZAK) or other institutions.

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TABLE OF CONTENTS

CHAPTER 3: RESEARCH METHODOLOGY

CHAPTER 4: RESULTS AND DISCUSSION

CHAPTER 5: CONCLUSIONS

LIST OF TABLES

LIST OF FIGURES

Abstract of the project paper submitted to the Senate of Universiti Tun Abdul Razak in partial fulfilment of the requirements for the Master of Business Administration.

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It is nothing new about the unemployment issue in Malaysia as it has been debated for many years, given how impactful the effects of unemployment and underemployment are in the long run. As the world had been impacted by the impactful trajectory of the COVID-19 outbreak in 2020, the pandemic had further exacerbated unemployment among graduates, hence increasing the unemployment rate. Therefore, this research proposal examines the relationship between the dominant factors of unemployment and how these factors influence the soaring rate of unemployment among Malaysian graduates. Per this objective, this research investigates four exogenous variables: low wages, job mismatch, quality of Higher Education Systems in Malaysia, and the employability skills of Malaysian graduates. The targeted population used in this study is the Malaysian graduates, be they graduated from a public or private local Higher Education Institutions, aged 21 to 29, residing in any state in Malaysia. The temporal timeframe should include graduates who had graduated after 1 or 2 years max from their studies and are still unable to secure unemployment in Malaysia, either public or private companies. Furthermore, this study has used quantitative analysis for data collection. An online administered questionnaire survey via Google Form was used and responded to by 100 targeted respondents for this study. This study has used multiple regression analysis and Pearson's coefficient correlation analysis to assess the relationship between the coefficients studied in this research with unemployment among graduates in Malaysia. Results have shown that factors of low wages, job mismatch, quality of Higher Education Systems in Malaysia and employability skills of graduates significantly correlated to graduates' unemployment in Malaysia.

CHAPTER 1: INTRODUCTION

1.1 Background of Study

In today's modern times, graduates face rising challenges, elevated expectations, and demands imposed on them by their family members and society as they embark on the next stage of life, searching for employment opportunities and having financial independence. In the case of Malaysia, the country has produced 5.36 million graduates last year, which has shown a 4.5% rise compared to the preceding year, which was 5.13 million graduates. Naturally, the increasing number of graduates was mainly concomitant with students' general perception of the importance of pursuing higher education to improve their future livelihoods (Abas & Imam, 2016). According to Zainal & Ismail (2012), upon completion of their tertiary education, graduates will aim to find and secure jobs that match their academic qualifications and earn sensible wages that come with it. However, this may seem too good to be true given the current economic conditions around the world after it has been badly affected by the aggravated consequences of the COVID-19 pandemic outbreak in 2020. Alongside this unprecedented event, the chances of looking for jobs can be immensely daunting and sometimes traumatic, especially for confident graduates who are heavily burdened with educational-related debts or tight family finances (Hassan & Supramaniam, 2021).

According to Muhamed Asri (2021), most graduates in Malaysia financed their higher education with student loans and defaulters, which are usually funded by the National Higher Education Fund Corporation (PTPTN) to give out provisional student loans for graduates to pursue their education. Graduates are expected to repay the loan debt once they have graduated. However, in reality, nowadays, student loan borrowers in Malaysia are found to be having trouble repaying these student loans due to the current employment situation in Malaysia, which is namely the difficulty to find suitable jobs that are certifiable for graduates, or even worst, the underemployment by being engaged in low-paying jobs (Meyer & Mncayi, 2021). As a consequence of this matter, not only being jobless in this current state of the economy is the worst, but also the inability of graduates who are unable to repay their loans will devastatingly lead them to have unstable financial situations as they are tied up with the student loan debts (Zainal & Ismail, 2012). With fewer job opportunities and challenging conditions to get jobs since the pandemic, the likelihood of unemployment or even underemployment may add up to the anxieties of these graduates to their withdrawals from participating in their country's economic development activities.

The Department of Statistics Malaysia (DOSM) has revealed that the unemployment rate among graduates has risen to 22.5%, bringing a total from 165,200 in 2019 to 202,400 in 2020 (DOSM, 2021). This rising unemployment rate has been predominantly attributed to the consequences of the COVID-19 pandemic outbreak that has caused unfavourable challenging labour market conditions in Malaysia, which is with fewer job opportunities. Therefore, it has led to higher competition for graduates to seek jobs and increased job losses. Based on DOSM's 2020 Graduates Statistics (refer to Appendix B), the increasing rate of unemployment among graduates was seen much higher among degree holders (+/- 22,400), followed by diploma holders (+/- 14,800) with an average age of 24 and over (Ravindran, 2020). From this unnerving situation, one can stipulate that the issue of unemployment among fresh graduates in Malaysia is worrying as the inability to have these graduates employed have become a prevalent issue in Malaysia's labor market. Fast forward to the first quarter of the year 2021, The Labour Market Review by the Department of Statistics Malaysia (DOSM) has reported that the unemployment rate in Malaysia remained low at the rate of 4.8%, almost identical to the previous rate recorded in the fourth quarter of 2020 (N. S. Abdullah et al., 2020). This soaring rate of unemployment in Malaysia has created alarming age disparities between the national average rate and youth unemployment rates, which are in the range from 15-24 years old that are yet to improve but instead remained stagnant at a level of three times higher than usual including the declining quality of higher education that perpetuates class stratification among graduates (DOSM, 2021).

It is undeniably evident that the Government of Malaysia has launched various COVID-19 stimulus packages that are mainly targeted to existing workers and management trainee programs and new job creations specifically designed for graduates and young workers who have fallen short in employment (Kamaruddin et al., 2020). On the contrary, even if these efforts seem to be a commendable strategy to mitigate the woes of unemployment in Malaysia, the Government and policymakers must focus on outlining their plan within a bigger picture as the issue of graduate unemployment has for a long time been a prevalent crisis in Malaysia and in addition to the compounding implications of COVID-19 to the economic and social environment, critical actions are very much needed to overcome the challenges of unemployment among graduates in Malaysia. From the statistics shown, one can stipulate that the issue of unemployment among graduates in Malaysia should be collectively taken into account as the effects of continued unemployment can last for a lifetime, and it would leave ineradicable scarring effects on graduates in terms of career prospects, financial factors and their well-being. Plenty of research has been done to signify the importance of this issue, mainly because many graduates nowadays have withdrawn themselves significantly from labor participation. One of

the contributing factors to this matter is the disproportionate wage ratio among graduates (N. S. Abdullah et al., 2020). According to the study done by the Ministry of Higher Education (MoHE) Malaysia, the issue of low monthly wages among graduates has dropped drastically in at least 10% of Malaysian graduates with Bachelor's degrees for the least earn a monthly income of around RM 1,001 - RM 1,500 for almost a decade now (Abu Rahim et al., 2021).

Shockingly, in 2020 recently, more graduates have fallen into this income gap, making it widen by 22.3% compared to previous years, including 2019, where the highest recorded was 18.7%, with a range between RM 2,001 to RM 2,500 (Saari et al., 2016). To further support this claim, based on the World Bank's 2019 Malaysia Economic Report, it has been reported that the median monthly income between the ages of 20-29 years old has been stagnant at a flat rate within the ranges of RM 2000 - RM 2500 since 2004 (Abu Rahim et al., 2021). On the contrary, employees aged 40-49 and 50-59 remained to gain the highest growth in their average wages, starting from RM 5000 to more than RM 6000 for 12 consecutive years (Noordin, 2020). This henceforth supports the notion that the wage growth in Malaysia among fresh graduates has never improved even though Malaysia attains an average of 7.0$ GDP growth every year. To add, the COVID-19 pandemic and its continuing travails have caused aggravating challenges that are not only to the country's economic conditions but have also exacerbated the compounded labor market conditions in Malaysia, especially for youths and graduates (Abas & Imam, 2016).

1.2 Problem Statement

While most economic crises, namely recessions, are usually caused by the waves of economic or financial policies, the coronavirus pandemic in 2020 has turned the world into profound shrinkage, causing trade and supply chain activities as well as the labor market to be adversely impacted by the virus (World Bank Group, 2020). As for Malaysia, the country is no exception in this case as the country has faced the worst economic downfall since the 1998 Asian crisis in late 2020. With the spikes in the number of COVID-19 cases in Malaysia, the Government of Malaysia has also implemented a series of Movement Control Order (MCO) and Conditional Movement Control Order (CMCO) which has not only banned civilians from conducting outdoor activities but has led all economic activities to be shut down temporarily, except for essential services, to curb the spread of COVID-19 virus. Consequently, the pandemic has not only shifted the consumer's purchasing and buying power for products and services, but it has also profoundly affected the country's supply chain activities, domestically and internationally.

Moreover, in the case of unemployment in Malaysia, during the second quarter of 2020, the emergence of the COVID-19 pandemic has not only changed the consumption behaviour among the citizens in Malaysia. But it has also tremendously affected the country's labour market, which has caused many companies to downsize their businesses, including millions of employees to face job retrenchments or temporary job loss category. These employees that are mostly affected by the pandemic are mainly the self-employed workers, either those on temporary or part-time contracts, and informal economy workers are primarily the ones who have mainly been exposed to the losses of jobs and incomes altogether during the COVID-19 crisis, and this has put their livelihoods at risk about the pandemic. Unpaid leaves and lay-offs have also been done by many companies of the leading industry players in Malaysia (i.e. travel and tourism industries, food, and beverages industries, etc.) as such as these sacrifices have been necessarily made in efforts to lower their business costs such as operating expenses, rental expenses, employees 'compensations and benefits, and just to name a few. This is also to ensure their company's survival and sufficient liquidity during such turbulent times (Cheong et al., 2016).

Though the Government of Malaysia has provided various stimulus incentives and reimbursements to reduce the soaring rate of unemployment in the country, not all are saved from the persistent ramifications of the COVID-19 pandemic. In fact, throughout 2020, Malaysia's unemployment rate remained stagnant at a higher rate of 3.3%, which was illustrated by the employment gaps between different demographic categories throughout the pandemic due to the unusual extent of the

employment rate in the country (Welsh & Cheng, 2020). Other than that, the declining wages rate as a base salary for graduates is also one of the reasons why the rate of unemployment is high in Malaysia. The issue of underemployment in Malaysia has been a long-standing labor market issue that went way back before the COVID-19 pandemic happened. According to Daud (2021), during the pandemic period, it has been reported that around 5.8% of young workers, which are inclusive of fresh graduates between the ages of 15-24 years old, have been underemployed. With a starting salary of RM 1,200 monthly or an hourly rate of RM 5.77 young workers who worked for 30 hours every week could only earn about RM 173 weekly or RM 692.40 monthly (Alaloul et al., 2021). With the current low wage rate circulating in the country, the graduates should not be blamed for getting themselves withdrawn abruptly from the workforce in Malaysia nowadays, as no one would instead with low-paying jobs that can barely make ends meet, especially when it comes to surviving in big cities, particularly Kuala Lumpur.

According to the Malaysian Trades Union Congress (MTUC), one of the fundamental factors that deteriorate the soaring decline of the employment rate in the country is not because of the type of jobs. To counter the statement from the Human Resource Minister, Datuk Seri M.Saravanan, who had claimed that "the job seekers should not be 'too picky 'or demanding with the available job opportunities," the MTUC Secretary-General, J.Solomon, spoke to the media that the current minimum wage level that the Governments fix has been basing on the outdated Poverty Line Index (PLI) per household on the average income of RM 980 which shockingly, has not been updated for more than ten years now (Krishnan, 2021). With this saddening revelation, little did the Ministers and the employers from big corporations in Malaysia know that many workers in Malaysia, including the fresh graduates themselves, have been suffering from the increasing income inequality in the country, especially from mid and low-level income families, and this includes the young new graduates as well (Daud, 2021).

Additionally, Nazrona et al. (2017) identified in their study that while the establishment of Higher Education Institutions in Malaysia has been growing steadily throughout the country, the issue of lacking employability skills and attributes among graduates is also a growing concern as most graduates were not given much exposure on their employability criteria such as the right soft skills and technical skills, graduates' behavioral skills and attitudes, and understanding of their course structure as a whole on which career pathway should they venture into once they have graduated from their university. This equates to questioning how good is the quality of the Higher Education Systems in Malaysia as unemployment among graduates is not solely caused by the factors above, which are the low minimum wages crisis and labor mismatches, but the right employability skills of graduates

and quality of Higher Education also play an essential role in the unemployment issue. Hence, it is reasonable to say that the unprecedented social and economic ramifications of graduates' unemployment should be gravely taken into account by the government of Malaysia as the effects of unemployment can create detrimental psychological and well-being impacts in the long run. For instance, due to the intense unemployment pressure, graduates are prone to feel demotivated and psychologically distressed, affecting their mental health and self-esteem (Ahmed et al., 2020). Studies have shown how impactful the effects of unemployment are on mental health factors which can significantly cause elevated levels of anxiety, frustration, alienation, and loss of purpose (Farré et al., 2015).

Consequently, this thesis unfolds the critical topic of unemployment among graduates in Malaysia, which studies how the following proposed variables — low minimum wages, labor mismatch, the quality of the Higher Education System in Malaysia, and the employability skills of graduates, contribute to the prevailing unemployment issue in the post-Covid-19 Era.

1.3 Research Objectives

Following the problem statement mentioned above, the research objectives of this thesis are categorized into two categories: general objectives and specific objectives, which are further explained as follows:

1.3.1 General Research Objective

To study the influencing factors contributing to the high unemployment rate among Malaysian graduates in the post-Covid-19 Era.

1.3.2 Specific Research Objectives

The detailed research objectives of this research are defined based on the four proposed independent variables in this study. These specific research objectives are as follows:

1. To assess the relationship between the low minimum wages factor and unemployment among fresh graduates in Malaysia.
2. To examine the relationship between the job mismatch and unemployment among fresh graduates in Malaysia.
3. To explore the relationship between the quality of Higher Education Systems in Malaysia factor and unemployment among fresh graduates in Malaysia.

4. To find out the relationship between employability skills with unemployment among fresh graduates in Malaysia.

1.4 Research Questions

1. What is the relationship between the low minimum wages and unemployment among fresh graduates in Malaysia?
2. What is the relationship between job mismatch and unemployment among fresh graduates in Malaysia?
3. What is the relationship between the quality of Higher Education Systems in Malaysia factor to unemployment among fresh graduates in Malaysia?
4. What is the relationship between employability skills with unemployment among fresh graduates in Malaysia?

1.5 Significance of the Study

The findings in this study are intended for the benefit and awareness of Malaysian society, particularly the policymakers, employers, and other relevant parties associated with the current happenings of the soaring unemployment rate among the young graduates in Malaysia today. Accordingly, this study highlights the affective consequences of factors that contribute to the increasing rate of unemployment among graduates, specifically the low wages crisis, the labor mismatch among graduates, the seemingly poor quality of Higher Education Systems in Malaysia, and lastly, the graduates 'employability skills. These factors are deemed essential to be addressed in this study as each aspect has a crucial influence on unemployment among graduates.

Generally, the impacts of unemployment can be detrimental to a country's economic situation and can also significantly affect the country's societal issues. In particular, as stated by Ahmed et al. (2020), unemployment reflects the country's economic incompetence to generate employment for the people who want to work but cannot do so, even though they are fit to work. In terms of societal issues, particularly in psychological factors, the feeling of the devastation of being unemployed, especially among young graduates, can be detrimental. The inability to make sustainable living wages can cause severe mental torture for a person, such as depression, anxiety, or even suicidal thoughts, as they cannot survive with low salaries or cannot make ends meet, to begin with (Cheong et al., 2016). The increasing feeling of angst further exacerbates these mental health factors which, without a doubt, leads to an unhealthy lifestyle, be it psychologically or physically (Ahmed et al., 2020). According to a recent study conducted by UNICEF among households who earn monthly wages below RM 5,200 in Kuala Lumpur, while poverty is relatively a big concern in urban unemployment, the psychological impact of this issue can have an immense consequence on the broader spectrum of the economy (Welsh & Cheng, 2020).

1.5.1 Significance for Policymakers in Malaysia

With the unemployment rate increased by 2.2%, bringing about from 748,200 to 764,400 people since last October 2021, economists in Malaysia have deduced that the labour market in the country will eventually and slowly face downward pressure as long as the current employment rate in Malaysia continues to deteriorate (Martin, 2021). Based on the tracking done by the Minister of Human Resources, the result has depicted that the job vacancies have worsened to 162,000 in December from 97,000 in the preceding month in which these job openings were mainly from the blue-collared jobs category namely factory, construction jobs, sales assistance and security (Martin, 2021). Additionally, a large number of retrenchments mainly occurred in professional and managerial job

categories which have shown uneven job market projections across sectors such as aviation, retail, hotels, and restaurants as well as tourism-based job segments that have been significantly impacted during the COVID-19 pandemic (Kamaruddin et al., 2020). Consequently, the long-term impact of unemployment will not only burden certain sectors with lasting job losses or disproportionate job functions but this also largely affects the job seekers mainly the young graduates who are unable to secure job placements after graduation. Therefore, the findings and discussions that shall be prevailed in this study provide the policymakers in Malaysia with some revelations about the underlying issues of unemployment among graduates that may result in persistent joblessness for them in the long run. This study also provides some of the relevant solutions and approaches to tackle unemployment issues in Malaysia that in some ways will be of help to sustain the economic environment altogether.

1.5.2 Significance for Employers in Malaysia

As for the employers in Malaysia, the prevailing significance of this study is to highlight what is truly demanded by employers when hiring fresh graduates in the workforce? Just how prevalent a college degree is to get a job nowadays? These questions keep lingering in most minds of graduates today when too many jobs are taking too long to fill and too many aspiring graduates/young workers remain to be on the sidelines (Tumin, 2021). In research by Kamaruddin et al. (2020), many employers from various industries worldwide have been disinclined to hire graduates, especially during the COVID-19 outbreak crisis where economic downturns and weak profits were seen. Based on the previous case study done among employers from Georgetown, Malaysia, the willingness to hire experienced workers was much higher as compared to hiring young graduates and this has consequently made it harder for young graduates to be employed after graduation (Tumin, 2021). The main reason being is that most employers place a stronger priority on years of experience rather than the graduates ' academic qualifications or talents when it comes to hiring preferences. Therefore, this study elucidates the long-standing debate on which criteria matter most in getting employed for graduates — working experiences or academic achievements.

1.5.3 Significance for Higher Education Institutions and Educators

Furthermore, the findings and discussion in this study are also aimed to depict its significance for educators of Higher Education Institutions as well as the educators in Malaysia. Based on the research done by Nasrudin (2004), the relationship between the quality of education and its development in higher education institutions plays a crucial role in contributing to the issue of unemployment among graduates. Evidently, exemplary academic achievements could no longer warrant placement in the workforce. This is primarily due to the lack of employability skills among graduates, making them slightly marketable in employers' eyes. Moreover, this study also warrants its significance for the

educators of higher institutions in Malaysia. Having well-competent lecturers in terms of personal values, professionalism, social skills, etc., will consequently affect the overall quality of graduates (Hanapi & Nordin, 2014).

Furthermore, this study also seeks to highlight the significance of improving the quality of the educational system among Higher Education Institutions in Malaysia towards bolstering the graduates 'employability, especially in terms of the essential skills necessary for graduates to apply in their future employment. Accordingly, this study provides the relevance between the quality of education and the competency of the higher institution educators with its implications on the issue of unemployment among graduates in Malaysia. In research from Hanapi and Nordin (2014), the quality of the educational system for graduates is equally important as lecturers' competence is vital in shaping the minds of graduates. Due to the challenging employability conditions of today, this has put intense pressure on graduates to ensure they are fully equipped with not just academic skills but also the relevant skills, i.e., problem-solving skills, teamwork, decision-making skills, critical thinking skills, etc. that most employers look for in graduates nowadays (Fong et al., 2014). Therefore, the findings of this study highlight its significance to the Higher Education Institutions of Malaysia and the educators in developing the employability skills of graduates in terms of the quality of higher education and the competence of lecturers in Malaysia.

1.5.4 Significance for Future Researchers

This proposed study also hopefully be beneficial for future researchers. The ideas presented in this may be used as cross-references or as supporting data that will give them an extensive background and knowledge about the future unemployment issue among Malaysian graduates. Additionally, this study also hopes of providing substantial benefit to the future society, particularly to the parties above — policymakers, employers, and the educators of Higher Education Institutions of Malaysia, through the solutions suggested in this study towards curbing the issue of rising unemployment rate among graduates in Malaysia.

1.6 The Organisation of the Study

1.6.1 Chapter 1

This chapter introduces the broad background of the proposed study, which in this case, it discusses the underlying factors that contribute to the soaring issue of unemployment among graduates in Malaysia. The study is then followed by identifying the proposed study's problem statement, which includes general research objectives and research questions that ought to bring clarity and focus to the problem stated. Moreover, this chapter also defines the significance of this study. It highlights the significance of the study to each prevailing party that predominantly benefited from this research, and the impacts of the study are also indicated.

1.6.2 Chapter 2

This chapter introduces the proposed study's literature review, which provides specific definitions and explanations of the terminologies used in this study. In addition, the researcher also uses a selection of available resources that are relevant to the study, provided that it fulfills certain aspects of the nature of the topic and how it is appropriate to this study. The evaluation of the selected literature reviews about the proposed problem is also addressed in this section to further strengthen the basis of this research. The next part of this chapter is followed by developing a theoretical foundation that represents and elaborates on how the proposed variables are interrelated as a study model and how it consequently forms a theory underlying these relations. Additionally, variables are then identified and labeled accordingly. The dependent variable of this study is unemployment among graduates in Malaysia. In contrast, the independent variables are low wages, labor mismatch, the quality of Higher Education Systems in Malaysia, and lastly, graduates' employability skills. This chapter also provides the proposed conceptual framework of this study to conceptualize the proposed variables and describe the relationships between the established variables. Accordingly, the relationships between low wages, job mismatches, graduates' employability skills, and

1.6.3 Chapter 3

This chapter explains the specific procedures and tools used to identify, measure, interpret, and analyze the findings of this study, which is to test out the validity of the relationships of the established variables. In addition, the overall research design of this study is also explained in this chapter thoroughly, which covers every necessary element of the research design, namely the data collection method applied, the sampling design, how the established variables in this study are being measured, and how the data analysis is conducted to test the validity and confidence of the proposed hypotheses.

As for the data collection method, a set of administered questionnaires is used. This method is generally known for its time-saving benefit and is inexpensive to study large sample size.

1.6.4 Chapter 4

This chapter prevails the results and the study's findings as well as analyzes the data collected from the targeted respondents through the administered questionnaires that have been distributed electronically for this research. The findings in this chapter have been analyzed by applying the descriptive statistics and these findings are interpreted in accordance with the research objectives of this study. Moreover, to ensure the goodness of the data in terms of its reliability, validity, and unidimensionality, various statistical methods have been applied to test the relationship between the different proposed variables from which underlying factors were extracted to measure these variables. Furthermore, the data were also analyzed using the structural equation model along with the multiple regression analysis to explain the variance between multiple independent variables and one dependent variable. Lastly, this chapter also concludes by rejecting or accepting the proposed hypotheses.

1.6.5 Chapter 5

This chapter indicates the study's overall findings and significant implications into one comprehensive summary of the research — why the chosen research topic is essential, how the study was designed to indicate its significance to the body of knowledge, etc. In addition, the remaining parts of this chapter consist of recommendations for future research and practice, and the limitations of the study are also enclosed.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter begins by defining the relevant terminologies with its explanations of the suggested variables in this research: the low wages crisis, labor mismatch, the quality of Higher Education Systems of Malaysia, and lastly, the employability skills of graduates. The discussions of each proposed variable have been thoroughly explained through selected documents such as academic journals, newspapers, reports, etc. that contain information, ideas, or evidence of similar studies and variables that have fulfilled the specific aims or justifications on the nature of this topic (Arshed & Dansen, 2015).

Accordingly, in light of the soaring unemployment rate among graduates in Malaysia, this section has also explained the established variables that have helped the researcher develop a comprehensive overview of the nature of the proposed topic. As such, with the causal nature of the study, the relevant research findings from past or recently done studies have been addressed alongside the methodological issues, the logical continuity between history or recent studies, and the controversial issues, should they be pertinent to this study, have also been substantially clarified. Though there has been past research on a similar topic, some of those findings were often contradictory to the issue discussed or too industry-focused, thus reducing the results' generality. Furthermore, the topic discussed in this research has been debated over decades for its long-standing impact on graduates, primarily due to the recent trajectory of the novelty Covid-19 virus that has impacted the economic growth globally, thus leading to deteriorating job markets and unemployment.

Therefore, this study has been intended to provide an extensive analysis and presentation for the proposed research objective, which is to study the factors contributing to the rising unemployment rate among fresh graduates in Malaysia.

2.2 Theoretical Foundation

2.2.1 Theories of Unemployment in Economics

For most economic theorists, unemployment is perceived as an unprecedented event or process in the labour market trajectories. The degree to measure unemployment is differentiated by how economists define this terminology based on its statistical definition. Subsequently, three categories of unemployment are typically studied; *employed, unemployed,* or *not in the labour force* (Kwon, 2013). To further explain these terms, the term 'employed' refers to anyone who is paid for a given job within a given period. Meanwhile, 'unemployed' is the opposite of employed, either those actively seeking employment and ready to join the workforce or those temporarily laid off from their previous jobs. Lastly, the 'not in the labour force' category basically refers to those, not in the active workforce, not even on temporal layoff, and are not available for jobs (Yotopoulos, 1965).

Furthermore, while several unemployment groups exist, two distinctive categories of unemployment mainly studied for empirical studies by economists are natural unemployment and cyclical unemployment. According to Weitzman (1982), natural unemployment occurs in a good-functioning economy and only exists when the labour market is in perfect equilibrium. Under the category of natural unemployment, the two common types that economists commonly distinguish are frictional unemployment and structural unemployment. Frictional unemployment is described when job seekers seek job placements but cannot secure one. This situation often happens to fresh graduates or employees who have been laid off from previous jobs (Carrère et al., 2020). Structural unemployment refers to skills mismatches between the skills possessed by an employee to those skills demanded by the jobs offered.

A simple example of this is when an engineering graduate works as a customer service assistant. Meanwhile, cyclical unemployment refers to the change between natural unemployment with the actual unemployment rate. This type of unemployment often happens when the state of the economy in a country is in recession or fluctuations in business cycles, resulting in a higher rate of cyclical unemployment (Diamond, 2013).

2.2.2 Unemployment, Growth, and Minimum Wage

Assuming all factors in the labor market are the same, Figure 1 below depicts a simple minimum wage model of a perfect economy in which workers can be employed and earn a fair and equitable living wage. Based on the model above, when the Supply of Labor and the Demand of Labor line graph converge at the same point of the minimum wage (*W**) and the quantity of labor (*L**), it indicates that the labor market achieves an equilibrium. In contrast, when the minimum wage is set at a higher rate than its initial rate, for instance, W1, the labor market is no longer at an equilibrium rate. However, according to economists, unemployment is determined by the elasticity between labor supply and the demand of labor curves (Yotopoulos, 1965). Accordingly, if the supply and demand of labor curves are purely inelastic, the unemployment gap will be smaller. Conversely, if the supply of labor and the demand of labor curves are purely elastic, it creates a significant unemployment gap (Weitzman, 1982).

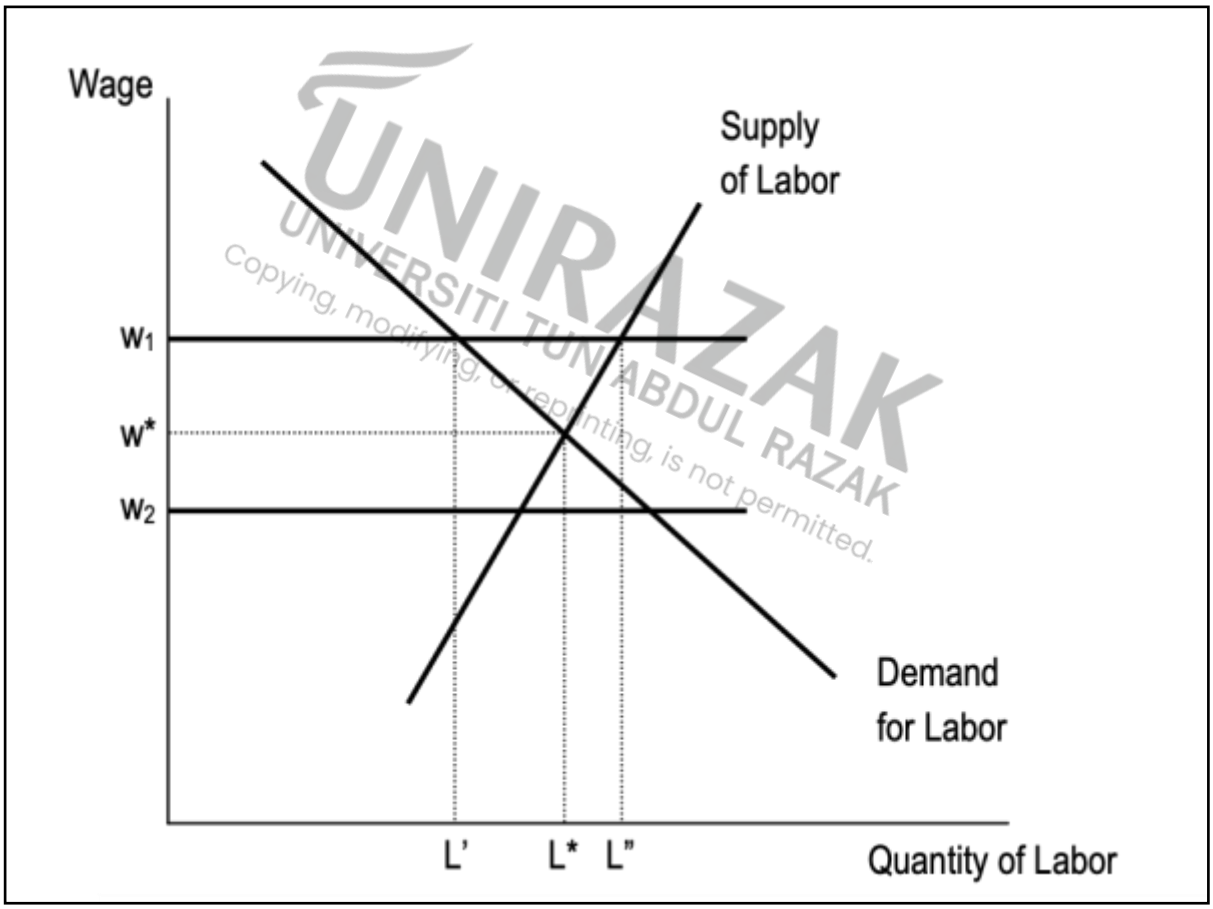

Figure 1: *A Simple Minimum Wage Model (Yotopoulos, 1965).*

Additionally, Cahuc and Michel (1996) elucidated the closeness relativity of the unemployment, growth, and minimum wage model in the Human Capital Theory. Their studies claimed that under the overlapping generations model with endogenous economic growth, '*high minimum wages can positively affect a nation's economic growth rate and welfare by increasing the number of skilled employees."* More specifically, Cahuc and Michel (1996) denoted that minimum wage could boost growth by allowing for human capital development, which this factor is tied to several externalities. However, one can stipulate that these consequences may occur, but only in the long run. Furthermore, this model shows a general trade-off between growth and the share of unskilled jobs: low demand for unskilled labor caused by a high MW may result in a human capital reallocation towards the qualified sector of the economy (Gorry, 2013). To illustrate, Table # below summarizes the economic models or theories of minimum wage (MW) effects on employment/unemployment.

	Economic model/theory	Predicted effects on minimum wage on employment/unemployment
1.	**Standard competitive model**	
1.1	The supply-demand model	Negative effect on employment if MW is fixed above the equilibrium level (market clearing wage).
1.2	Two-sectors model	Depends on: (i) the elasticity of labour supply to wages, (ii) the reservation wage of those who do not obtain job in the covered sector, (iii) the relative size of the covered sector.
1.3	Two-sectors model with queuing for covered-sector jobs	Effect on unemployment depends on: (i) the elasticity of the activity-rate vis à vis MW as well as change in employment-rate.
2.	**Alternative models**	
2.1	Monopsonistic market	Positive effect on employment in case of small increase in MW.
2.2	The efficiency-wage theory	There might be a positive effect on employment.
2.3	Minimum wage, unemployment and growth	Under certain conditions, positive effect on employment in the long run.

Table #: Summary of economic models or theories of minimum wage (MW) effects on employment/unemployment.

2.3 Empirical Research

2.3.1 Low Wages Crisis in Malaysia and Unemployment

In research by Vally et al. (2021), wages have been known as one of the most significant monetary factors for most employees to work. This factor positively correlates to most employees' work and life satisfaction. Vally et al. (2021) also added that wages are the primary motivator for employees to pursue self-development, a sense of belongingness, and life fulfilment. As defined by the International Labour Organisation (ILO), minimum wages are '*the least amount of remuneration that an employer is required to pay their employees for the work performed during a certain period, which cannot be reduced through collective agreement or individual contracts'* (International Labour Conference et al., 2014). Whether they are young graduates who just joined the working life or senior workers with 30-years worth of working experience, every employee is entitled to fair and equitable living wages for this allows them to improve their quality of life. On 16th July 2012, Malaysia's first Minimum Wage Order was gazetted, and it consequently went into effect on January 1, 2013

Essentially, this amendment stipulated that '*employers of six or more employees are required by the Minimum Wage Order to remunerate a monthly minimum wage of RM 900 (USD 278) or RM 4.33 (USD 1.34) per hour for workers in Peninsular Malaysia, or RM 800 monthly for workers based in Sabah, Sarawak, and the Federal Territory of Labuan'* **(**Alaloul et al., 2021). Since 2013, this order has been applied to all workers in Malaysia, excluding the domestic workers. Moving forward to 2018, with a newly nominated ruling cabinet, Pakatan Harapan (PH), the Minimum Wage Order was standardized to a minimum wage rate at RM 1,100 for all Malaysian states (Lee, 2020)**.** On February 1st, 2020, the minimum wage rate was raised to RM 1,200 in both cities and provincial areas, whereby cities' hourly rate is now RM 5.77 per hour and RM 5.29 for municipalities (Alaloul et al., 2021)**.** As of the present time, the issue of minimum wages has been debated by most underpaid Malaysian employees for decades. Even though Malaysia's actual labor productivity rate grew at a 5.0 percent rate each year throughout the decade with a mere 2.4 percent increase in the average wages, almost all employers remain opposed to its implementation (Vally et al., 2021).

Subsequently, the issue of minimum wages in Malaysia got worsened when the Chief Statistician of the Department of Statistics Malaysia (DOSM), Dr. Mohd Uzir Mahidin, quoted, "*The monthly income for degree graduates recorded have decreased drastically whereby most of them had earned a range between RM 1,001 and RM 1,500 in 2020 in comparison to the amount earned in 2019 where it was RM 2,500"* (Lim, 2021). According to Michelle (2020), the declining figure was alarming, especially among young graduates. The minimum wage for an employee since February 2020 was RM 1,200 in selected cities and municipal council regions whereas RM 1,100 someplace else. Based on the research made by Tumin (2021), the issue of low wages among graduates is not only caused by the long-overdue structural constraints in the country but also necessitates interventions in the Malaysian labor market policy. Though the COVID-19 pandemic badly impacted the whole world in 2020, the low starting wages had been a long-standing issue in Malaysia even before the pandemic. The impact of the recession and COVID-19 has decimated Malaysia's economic environment and the labor market due to the declining employment opportunities and wage rates, particularly among young graduates (Tumin, 2021).

Referring to Figure 2 below prevails the findings based on 2019's Graduate Tracer Study, published by the Minister of Higher Education of Malaysia (MOHE). Almost 60% of the unemployed graduates in Malaysia are born from households earning less than RM 4,000 monthly. In contrast, the remaining 30% share is the number of graduates accepted from families earning more than RM 4,000 monthly (Martin, 2021)**.** Based on this study, graduates from these households were primarily unemployed because they had to struggle to get paid with low-income jobs or no income to make ends meet for their families. These graduates knew that if they accepted a low-paying job, it would be difficult for them to negotiate for a more decent pay considering their starting salary is already low, to begin with (Yap, 2020). The study of unemployed graduates was also done to compare and contrast the wage earned based on their academic achievements (refer to Figure 3). The findings have shown that graduates with advanced academic certificates (Ph.D. and Master's degrees) were found to earn higher wages above RM 5,000, compared to graduates with Bachelor's degrees and Diplomas certification, which are below RM 2,000 income categories. The huge gaps in income among graduates relative to their academic achievements show that Malaysian graduates suffer from devastating unemployment and underemployment (Surendran, 2021).

Figure 2: *Share of unemployed graduates in Malaysia based on the overall household income (Tumin, 2021).*

According to Ma'dan et al. (2020), underemployment indicates a situation in which graduates are overqualified in low-skilled or semi-skilled job categories. Graduates under the underemployment category are classified as a mismatch in the jobs offered as they could not fully utilize their academic skills. In Malaysia, a share of 1.36 million graduates has suffered from underemployment compared to the year 2019, with 1.10 million graduates recorded. Subsequently, the rate of underemployment also soared to 31.2 percent in 2020 compared to the previous year of 26.7 percent.

Based on the statistics revealed by the Department of Statistics of Malaysia (DOSM), the high rate of underemployment in Malaysia indicates an issue in the structural labor market in the country in which graduates are underutilized in employment based on their qualified skills and time (Daud, 2021). The time-related underemployment refers to the number of hours underemployed graduates worked less than 30 hours weekly. They would only earn about ± RM 173 weekly or ± RM 692 monthly (Abu Rahim et al., 2021). To illustrate, figure 4 below indicates an increasing rate of underemployment among graduates during the first half of 2020 with a 5.8 percent rise whereas a

share of 5.4% shows the number of older workers that were re-absorbed for full-time employment at the end of 2020 (Martin, 2021).

Consequently, these underemployed graduates in Malaysia have been employed in freelancing jobs or jobs that they are overqualified, to begin with, mainly food-delivery riders that are primarily applied by youths nowadays. According to Fong et al., (2014), as Malaysia has been focusing on domestic-focused services that typically do not provide high-added values and wages, the growth in employment in semi-skilled jobs mostly in retail, accommodation, food, and beverages (F&B), and

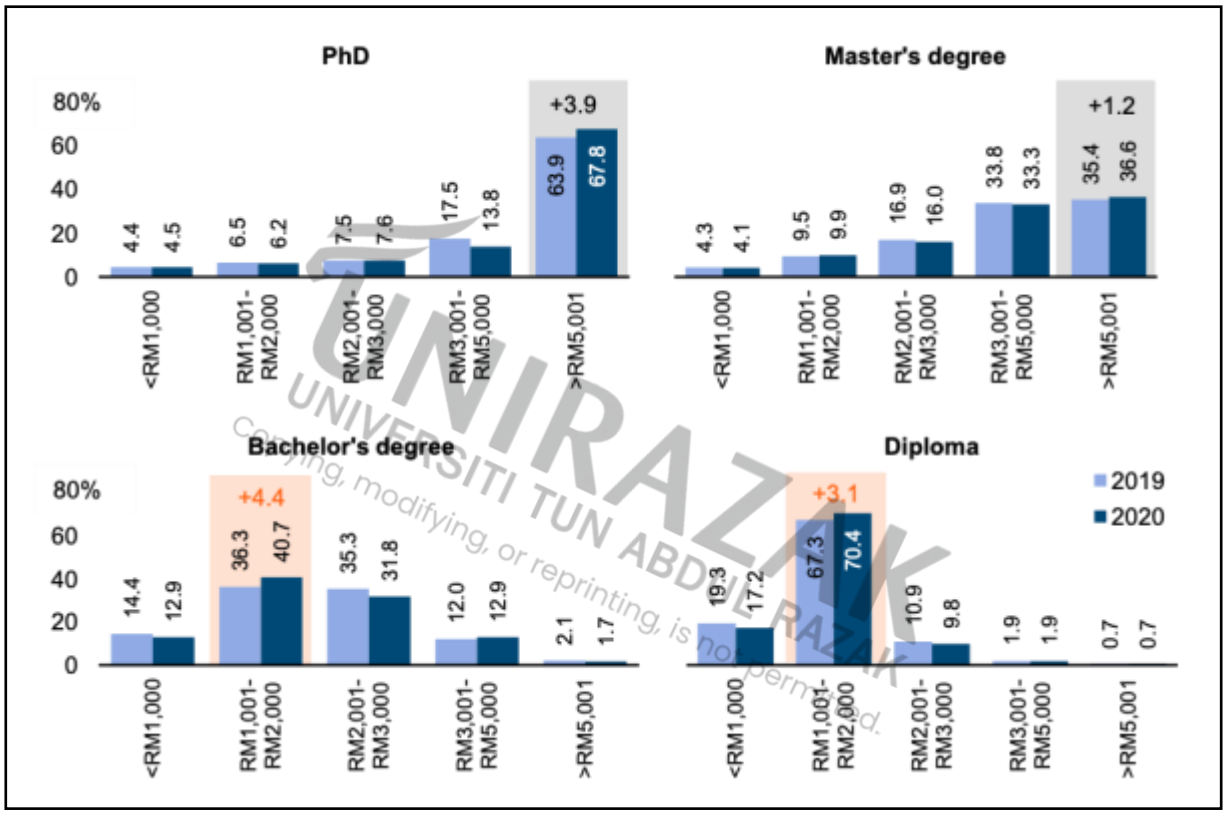

Figure 3: *Share of graduates on their income based on their academic achievements (Tumin, 2021).*

administrative-related jobs — all of which are mainly employed by young workers. Refer to Figure 4 below, while these jobs experienced an increased rate between 3.6 percent to 9.4 percent, the wages remained to be on a subpar level of between RM 2,081 and RM 2,363 even though the average pay for these sectors — manufacturing, accommodation, F&B, etc., is RM 3,224 (DOSM, 2021). As such, while a job is a job and 'beggars can't be choosers' as people might say, the reality of underemployment or even unemployment among graduates is suppressing their livelihood given the fact that the minimum wage rate is stagnant alongside the limited job opportunities offered for the young graduates (Shahidan et al., 2019).

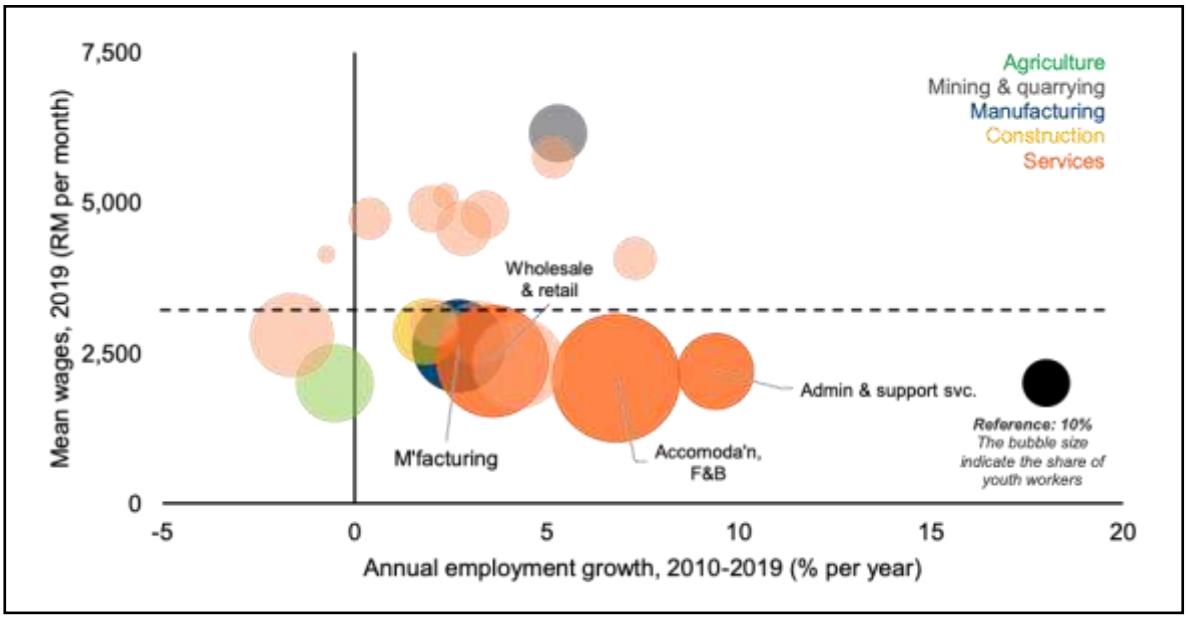

Figure 4: *Mean wages among graduates according to sectors from 2010-2019 (DOSM, 2021).*

2.3.2 Jobs Mismatch and Unemployment

As stated by the International Labour Organization (ILO), labor mismatch occurs when there is a gap between the skills required by the employers in a given job and the skills possessed by graduates. Simply put, skills mismatch among graduates occurs due to the unavailability of jobs that match their skills obtained. Correspondingly, the labor market does not provide adequate training and education to check the skills needed (ILO, 2016). To add on, Zakariya (2014) defined the skills mismatch occurs when the country is unable to allocate its employment resources within the supply and demand of its labor market and this situation can prevail in terms of education or skills; the proximity of geographical factors; and jobs-related mismatches. Furthermore, according to the study done by Adams et al. (2000), while factors such as education level, lack of experience, inflexibility, and lack of personal skills as the reasons why labor mismatch occurs, the attitudes and practices of employers are also contributing to the mismatch unemployment.

Consequently, **t**here are four prevailing categories of skills mismatch: skills gap, skills obsolescence, skills shortages, and over/under skilling. According to Moh (2022)**,** skills gaps are defined when employees do not obtain the required skills to do their jobs effectively. Some examples of skill gaps that are often lacking in employees are namely leadership skills, communication skills, critical thinking skills, teamwork, and problem-solving abilities just to name a few. Moving on, skills

obsolescence refers to when workers become inefficient with the skills they possess due to lack of use or the skills become obsolete as their workspace changes (Adams et al., 2000)**.** Skills shortages are when there is a low in qualified employees with the right skills and knowledge that employers seek to fulfill specific job requirements (Tachibanaki, 1996). And lastly, over/under skilling differs in situations whereby employees can either be under-skilled or over-skilled. This usually occurs when the job given does not correspond to the existing knowledge or skills possessed (Palmer, 2017).

In the case of Malaysia's labor market, other than its gaps in wages, the labor mismatch is also one of the contributing factors that lead to the higher rate of unemployment and underemployment altogether. According to Tumin (2021), while Malaysia is in the recovery stage after the unprecedented COVID-19 crisis, the country has recorded an increasing share of skill-related underemployment (SRU) which this factor is associated with the labor market mismatch. To illustrate, referring to Figure 5 below, which shows the skill-related underemployment per quarter and gender, the SRU rate increased by 3% quarterly, rising from 8% by the end of 2017 to 12% drastically by 2020. The figure also shows that the SRU was recorded higher among women, whereby 14% were affected by labor mismatch than male workers (Tumin, 2021). If compared by age group (refer to Figure 5), the SRU was recorded higher among the age group between 15-24 years old relative to the age of younger workers in Malaysia.

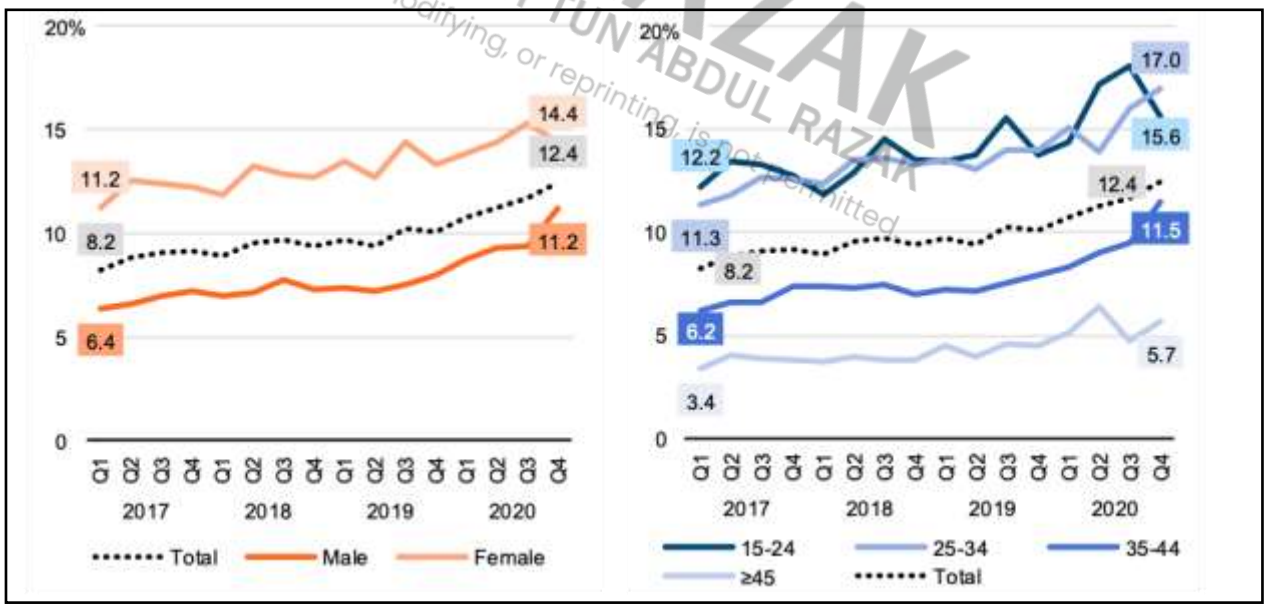

Figure 5: *Skill-related underemployment (SRU) per quarter by gender and age group (Tumin, 2021).*

Furthermore, in research by Noordin (2020), the increasing rate of SRU is evident Bank Negara Malaysia (BNM) recorded that since 2017, the number of graduates who joined the workforce after graduation exceeded the number of jobs created in the labor market. Additionally, Bank Negara

Malaysia has also reported that despite the rising number of graduates, the disproportionate number of jobs created remained flat as Malaysia focused on the low and mid-skilled jobs (Shahidan et al., 2019). For instance, as the notion of living costs in Malaysia is increasing tremendously, not only graduates with Bachelor's degree backgrounds but even the ones with advanced academic qualifications, i.e., Ph.D. had opted for food-delivery rider jobs due to its low barrier of entry and for the sake of making ends meet (Palmer, 2017).

Furthermore, Tumin (2020) also added that the extent of the labor mismatch issue is also relative to the geographical proximity of the jobs in Malaysia. Notably, while the country was battling the pandemic crisis in 2020, Malaysia had imposed a Movement Control Order (MCO), which stages had undergone to curb the spread of the virus. However, due to the restrictions of movement imposed, despite wanting to work or retain their positions, younger workers have been forced to leave the workforce (Palmer, 2017). According to the study done by Yap (2020), this mainly occurred within the tourism industry and wholesale/retail sector. Therefore, it creates a wide gap in the labor market conditions due to the high number of employment withdrawals among young workers. Though some skilled jobs were created in the finance and real estate industry, these jobs are industry-focused, whereby only a small proportion of people are qualified for these jobs (Bakar & Hanafi, 2007). Thus creating a longer time to get these positions filled by getting the right employees with the right skills and knowledge. Consequently, it creates a surplus of graduates given that the labor market was unable to produce skilled jobs befitting the skills and understanding of the graduates.

Conclusively, the issue of labor mismatch indicates more profound effects of unemployment in Malaysia whereby not only the labor market is unable to produce the right jobs according to the skills of the graduates but also shifts the country to a slower rate of development and innovations through labor-intensive job creations, especially for the younger workers. As stated by OECD (2011), a prolonged period of unemployment may lead to skills decay, especially among graduates who expect to get jobs after graduation. Even worse, they might be demotivated throughout the job-hunting process and eventually leave the workforce indefinitely.

2.3.3 The Quality of Higher Education Systems of Malaysia and Unemployment

As stated by Advant and Makhirja (2003), quality in terms of education is not a matter of implementing change, but a choice. The willingness of a person to provide a quality education relies on how the process of teaching and learning is carried out, how well the learning environment is in terms of ambiance, infrastructures, materials provided, and how well the curriculums covered are conducted and prepared for effective learning (Asmaak Shafie & Nayan, 2010)**.** In accordance with

the increasing unemployment rate, several studies have been conducted towards finding the relationship between the quality of higher education systems in Malaysia and its influence on unemployment among graduates.

Based on the Theory of Human Capital introduced by Schultz (1963), this theory depicts the importance of education in developing human beings' minds and a country's economic growth. Evidently, Shaari et al. (2016) also indicated that there is a strong linkage between education and economic growth, whereby education sustains long-term economic growth within a country. He added that the quality of education plays a pivotal role in shaping the talents and skills of a person, and undoubtedly, education allows graduates particularly to secure jobs after completing their higher education (Hanapi & Nordin, 2014; Hassan & Supramaniam, 2021; Riddell & Song, 2011; Shaari et al., 2016). Based on the research done by Nasrudin (2004), the relationship between the quality of education and its development in higher education institutions plays a crucial role in contributing to the issue of unemployment among graduates.

Furthermore, according to Ang (2015), lecturers contribute of utmost importance to the quality of graduates, which is mainly measured by their knowledge, teaching skills, as well as good personal attitudes and behaviours. As such, the competency of the higher institution educators has a strong influence on the graduates' attributes to enhance their employability skills and technical skills in the workforce prior to completion of their tertiary studies. By definition, employability skills indicate the capabilities that graduates should have in terms of their unique insights and qualities acquired when they are in universities (Hanapi & Nordin, 2014). Meanwhile, technical skills are defined as a core aspect that graduates should be able to master as this will enable them to get employed. Similar findings from the study by Hanapi & Nordin (2014) stated that lecturers are obliged to incorporate the characteristics of a conducive learning environment for their students, and these characteristics include the infrastructures, atmospheric elements for socializing activities, geographical aspects, etc. towards contributing to the effectiveness of a quality learning experience.

From an academic standpoint, while the quality of education plays a role in the issue of unemployment, the need for lecturers to be well-equipped and excellent educators are crucial in order to produce quality and excellent graduates towards preparing them with relevant skills, materials, and resources that are necessary for their future workforce. In fact, a relative study by Ghasemy et al. (2018) stated that students' main concerns in terms of the lecturer's competencies are such as poor assessment quality, ineffective teaching skills i.e. presentations while lecturing; not having a clear set of teaching standards, and objectives. Hence, this shows that lecturer's competencies play a big role

in developing quality education for university graduates. When the quality of education is improved, the output ratio of graduates will also be improved (Misni et al., 2020).

Additionally, the connection between the quality of education and unemployment among graduates is also evident when there is a big gap of skills mismatches among graduates that have caused them to face underemployment. Moh (2022) observed that most graduates are under-skilled with the criteria and requirements needed by the labor market nowadays. One of the contributory factors to this issue is the inability to market themselves with the right skills and education. A similar study has also been conducted by Shujaat et al. (2009), whereby one of the reasons the unemployment rate is high in the country is because they lack the knowledge and the quality skills related to the skills demanded in the industry. Given the urgency of this factor to unemployment among graduates in Malaysia, Abd Majid et al. (2020) observed that Higher Education Institutions in Malaysia are yet to attain the average level of employability skills among graduates considering they can only produce about 75%, which is below of the required level.

2.3.4 The Employability Skills of Graduates and Unemployment

Following the study conducted by Abd Manaf et al. (2014), several definitions are associated with the term '*employability skills.'* For some researchers, the terminology '*employability skills'* is briefly defined as the capabilities as well as the marketability skills of an individual in employment, and these skills are acquired or learned to progress gradually within the labor market while applying these skills towards achieving longstanding career (Hillage & Pollard, 1998; McLeish, 2002; Brown, Hesketh, & Williams, 2003). Meanwhile, Clarke (2008) defines *employability skills* as the capabilities, attitudes, and behaviors of an individual. These skills act as the tools to develop the future outcomes of the individual's job within the labor market. Similarly, Moreau and Leathwood (2006) regarded employability skills as a notion for graduates to learn and acquire specific personal skills or abilities that will make them marketable and outstanding in the workforce alongside benefiting the community they serve. Essentially, most researchers have similar approaches and meanings in defining the term '*employability skills'* according to a specific context and situation. Abd Manaf et al. (2014) summarised these notions of employability skills as the skills and capabilities possessed by a graduate in finding suitable jobs that also match with their academic qualifications and these said skills allow the graduates to develop themselves whether it is in the same organization or within the independent labor force.

Furthermore, according to Bakar & Hanafi (2007), graduates' employability skills are differentiated into two types: subject-specific skills and non-subject-specific skills. To illustrate, subject-specific skills are those skills to be learned and acquired to perform a certain type of occupation such as skills required to be a doctor, accountant, etc (Asmaak Shafie & Nayan, 2010). Meanwhile, non-subject-specific skills refer to the technical skills of graduates such as soft skills, leadership skills, communication skills, etc. (Abd Manaf et al., 2014). In addition, according to Abas and Imam (2016), along with the classification of these employability skills, generally, employees prefer graduates to acquire these crucial skills as not only they are helpful, but they also serve as the basis of lifelong workplace skills needed for graduates to find jobs across different levels of positions in organizations. To illustrate, Abd Manaf et al. (2014) has developed a list of fundamental employability skills that employers seek among graduates across different dimensions and attributes: computational skills, interpersonal skills, communication skills, entrepreneurial skills, and analytical skills name a few.

Several studies have highlighted the importance of higher institutions providing specialized curriculums or modules that could develop essential employability skills that most employers look for nowadays within graduates. To illustrate, most Malaysian graduates lack communication skills, particularly English language proficiency. According to Ting et al. (2017), one of the attributed

factors contributing to high unemployment among graduates is their lack of proficiency in the English language. While Bahasa Melayu is regarded as the national language of Malaysia, most employers in Malaysia utilize the English language more as this language is considered the universal language to converse in most business settings from all continents of the world (Marzuki et al., 2013). However, in Malaysia, the issue of language and communication skills in workplace settings among graduates has been one of the significant concerns among employers because, in a situational context, the ability to use the English language effectively is a priority (Ganesan & Angeline, 2017).

The issue of bolstering the graduates' employability skills has been overly debated since many graduates in the country are found to lack the essential employability skills to secure employment after graduation (Hanapi & Nordin, 2014; Kamaruddin et al., 2020; Rahman & Lie, 2015). The deficiency of these skills has made many graduates unable to make themselves marketable to employees, thus making them feel incompetent and demotivated to apply for jobs. Plenty of studies and research have been conducted in order to identify the underlying factors concerning the lacking graduates' employability skills. Misni et al. (2020) stated that the functions of Higher Education Institutions in Malaysia play a fundamental role in bolstering the graduates' employability skills as the pressuring conditions of employment today do emphasize not only the academic achievements of graduates but also their employability skills for future jobs in the workforce.

Kamaruddin et al. (2020) observed in their study that in order to inculcate the graduates' readiness for employability skills, it can be gained through specialized programs or work-integrated learning activities that could strengthen the critical-thinking skills among graduates. These programs are developed to enhance the competencies of graduates in every aspect of skills namely leadership skills, entrepreneurship skills, teamwork skills, and other necessary skills needed for employment. A similar study conducted by Hamirul Hamizan Roslan et al. (2019) mentioned that graduates also lack the skills above, making it hard for them to handle the obstacles of the ever-changing working environment. Hence, these specialized programs from Higher Education Institutions, i.e. academic support programs, entrepreneurship activities, etc., must be adequately planned and aligned with the demanded job skills in industries today to ensure the graduates can improve and strengthen their overall skills before facing employment (Puteh-Behak et al., 2019). This can be proven from the past study conducted by Bustamam et al. (2015), which has claimed the perceived importance of teaching entrepreneurship skills for graduates as these skills provide not only employment opportunities for graduates but also provides valued-added learning experiences for graduates that can be applied in their future careers. Therefore, it is up to the Higher Education Institutions to provide the essential resources to prep their graduates for future workforce skills with the necessary skills and knowledge.

Similarly, as stated by Hassan and Supramaniam (2021), universities in Malaysia, be it public or private, should begin introducing social entrepreneurship modules primarily because this module allows graduates to inculcate social entrepreneurship skills such as interpersonal skills, critical thinking skills alongside the ability to recognize commercial opportunities, especially in today's modern business environment. This can be supported by similar research by Hamirul Hamizan Roslan et al. (2019). They found out that most employers in Malaysia nowadays seek graduates with entrepreneurial skills and eventually allow them to stand out from others, given their advanced skills.

In sum, multiple studies have shown that the relationship between unemployment and the deficiencies of employability skills among graduates is evident. These skills can reduce unemployment, but it allows graduates to be competent and contribute to their future careers to their fullest capabilities to ensure permanent employment or, even better, to rise through the ranks in organizations.

2.4 Proposed Conceptual Framework

The relationship between the proposed variables in this study is described based on the schematic diagram of the conceptual framework below. This proposed framework hopes to stimulate a clear understanding for readers of how the variables are related to each other to verify their relatedness to the issue discussed in this study. The theory to explain these relationships between the variables is that the factors that influence unemployment among graduates are low wages, labor mismatch, the quality of the Higher Education system, and the employability skills of graduates. Accordingly, from this conceptual framework, testable hypotheses will be further indicated in the following section to examine the theories' validity.

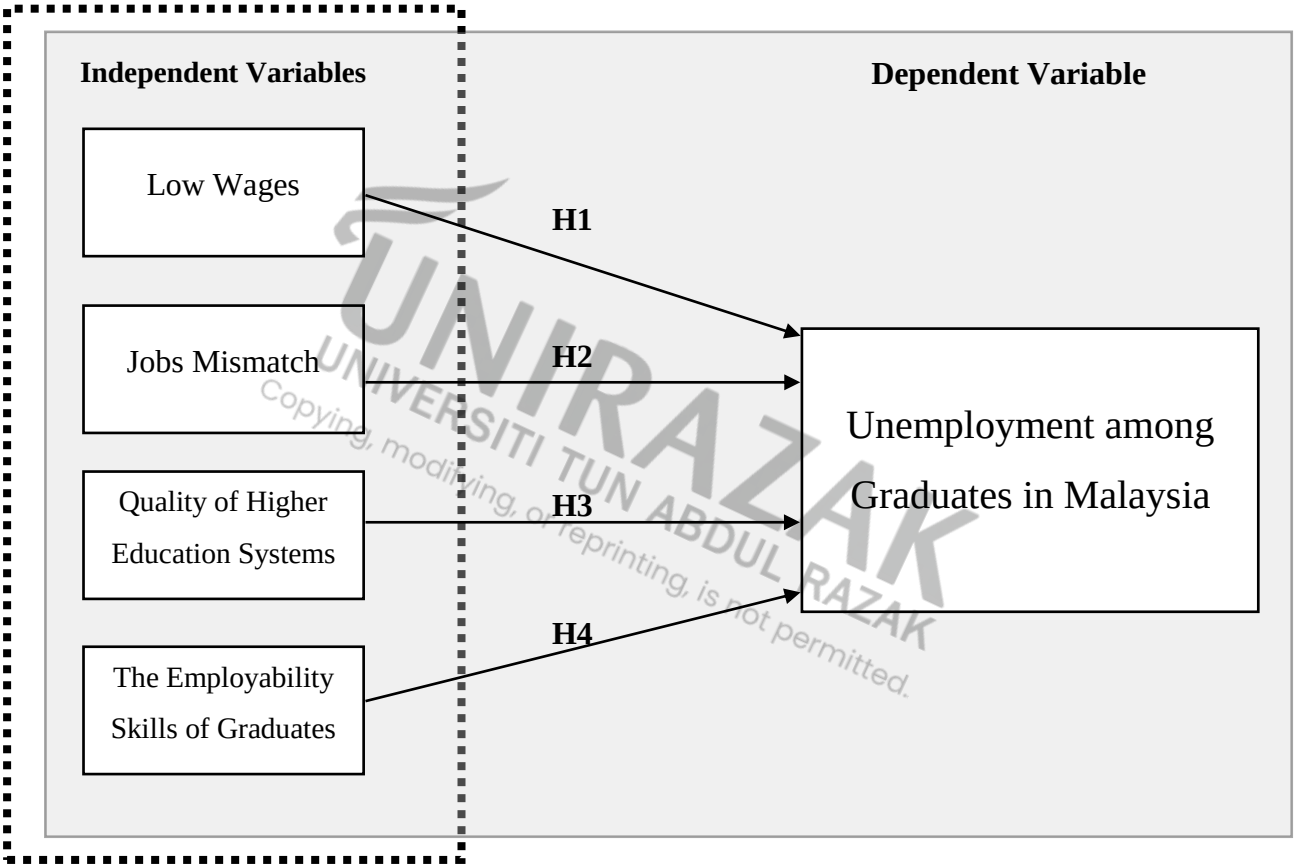

Figure 6: Proposed conceptual framework of factors contributing to unemployment among graduates in Malaysia

2.5 Research Hypotheses

As per the proposed conceptual framework, this research has formulated four hypotheses statements based on the conjectured variables to prove their relationship in contributing to the unemployment among graduates in Malaysia.

H1: There is a significant relationship between low wages and unemployment among graduates.
H2: There is a significant relationship between job mismatch and unemployment among graduates.
H3: There is a significant relationship between the quality of Higher Education systems and unemployment among graduates.
H4: There is a significant relationship between graduates' employability skills and unemployment among graduates.

2.6 Summary of Chapter 2

In summary, this chapter has covered the identified variables by defining each relevant terminology with its explanations using various documented sources and journals to strengthen the arguments proposed in this study. In light of this study, it can be concluded that the proposed variables, the low wages crisis, labor mismatch, the quality of Higher Education Systems of Malaysia, and lastly, the employability skills of graduates, have a significant influence on the issue of unemployment among graduates in Malaysia. This chapter has also demonstrated a schematic diagram known as the theoretical framework to establish the relationships between the variables proposed. Based on the framework given, a theory is established whereby the variables, the low wages crisis, labor mismatch, the quality of Higher Education Systems of Malaysia, and lastly, graduates' employability skills, are interconnected with the issue of unemployment among graduates. Consequently, this chapter also covers hypotheses statements based on the theorized relationships of the variables in this study. The format used for the hypotheses statements is nondirectional hypotheses. The researcher hopes to hypothesize significant relationships between the proposed variables as proven from past studies to establish the connection these variables have over the unemployment issue. Along these lines, the hypotheses drawn from this study will be further tested for their validity and analyzed in the next part of this study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the various methodologies in this study, including research design, data collection methods, study population and sampling procedures, analysis and interpretation of data, and operationalism and measurement of variables established in this research. Furthermore, this chapter also constitutes the internal environment aspects: the correct type of research, time horizon, research strategies, and extent of research interference, based on the study conducted (Sekaran & Bougie, 2016). These elements of research methodology are essential for research as they will researcher evaluate and perform the data analysis more clearly, and thus, good research work is achieved. According to Sekaran & Bougie (2016), the primary purpose of this chapter outlined in research proposals is to define how the overall analysis is conducted, mainly what data has been gathered for the study, what and why the particular data techniques and procedures have been adopted, and how are the information collected will be interpreted to support the hypotheses drawn in this study, which in this case is to analyze the relationship between the factors contributing to the increasing unemployment and underemployment rate among graduates in Malaysia. Accordingly, an overall conclusion of this study will be drawn to enlighten readers on their collective understanding of the research in identifying the factors proposed to the issue of unemployment and underemployment among graduates in Malaysia.

3.2 Research Design

Zangirolami-Raimundo et al. (2018) defined a research design as a research blueprint or plan that entails the overall research strategies for collecting, measuring, and analyzing data gathered. The quality of a well-structured research design depends on how the researcher adopts the appropriate elements for their research, primarily by taking into account how these elements answer the proposed research questions and objectives of the study, as well as time and money or any other external factors that could tamper the overall research process (Sekaran & Bougie, 2016). Decisions regarding the research design should also include the comprehensive data collection method, the sampling size and techniques used, the measurement of variables, and how the proposed hypotheses will be tested to conclude the study's findings.

Accordingly, this section will thoroughly discuss the following elements of research design: research strategies, the extent of researcher interference, study setting, unit of analysis, and the time horizon

applied appropriately for this research. Following the nature of this, which is to investigate the contributing factors in unemployment and underemployment among graduates in Malaysia, the researcher will adopt the descriptive research design which complements the nature of this study that is to obtain information from the prevailing phenomenon of unemployment by inquiring individuals about their insights on the issue, attitudes, and values (Sekaran & Bougie, 2016).

Furthermore, following this study's descriptive nature, the research strategy applied is survey research. As this study is about to investigate the relationship between low wages, labor mismatch, the quality of Higher Education Systems in Malaysia, and the employability skills of graduates, with its influences on unemployment in Malaysia, the researcher deems the survey research as an appropriate research strategy to critically evaluate the appropriateness of these factors within the individual's perspectives, particularly the targeted sample size for this research which will be further explained in the following section of this proposal. Additionally, the study will also adopt the quantitative research strategy by utilizing questionnaires with numerically-scaled items to explore and obtain information related to the primary objectives of this study.

In terms of the extent of researcher interference, a minimal interference of correlational research will be utilized as this study is conducted in a natural environment, given that the main objective is to investigate the relationship between the significant factors of low wages, labor mismatch, the quality of Higher Education Systems in Malaysia, and the employability skills of graduates, with its impact on the high unemployment rate among graduates in Malaysia. The normal flow of events within the natural environment will remain uninterrupted, be it internally or externally, for the researcher to collect the relevant data for this study. Moreover, this study is conducted within non-contrived settings in which natural occurrences of events proceed normally together with minimal interference by the researcher to collect the relevant information for this study, thus creating varying results from the data analysis due to the descriptive nature of this study.

Further, this study will use individuals as the primary unit of analysis. The targeted individuals in this study are mainly Malaysian graduates from all races and states aged 18 and above. This research will also be done within a cross-sectional time horizon method. Data is obtained within just once, or maybe over weeks or months, to get as much information as possible and answer the proposed research questions sufficiently. To add, according to Sedgwick (2014), the advantage of conducting cross-sectional research studies allows the researcher to gather data at a lower cost compared to longitudinal studies, making it possible to generate solid and conclusive analysis from the hypotheses tested.

3.3 Study Population and Sampling Procedures

3.31 Study Population

As stated by Casteel & Bridier (2021), the population of a study refers to the general group of people, events, or things that the researcher seeks to investigate and make inferences from the sample statistics. To further illustrate this, the study population represents the specific and heterogeneous group of potential participants, be it individuals, dyads, groups, organizational entities, or other relevant parties, that the researcher seeks to understand and study and to which the results may be generalized and create boundaries for the scope of a study (Casteel & Bridier, 2021). This explicit description of the population will allow the researcher and readers to associate the area of research within the appropriate entities, particularly the research participants. Furthermore, according to Sekaran & Bougie (2016), such specific descriptions of the targeted study population allow the researcher to focus within a particular study context properly and, consequently, generate a reliable and accurate analysis from the data collected. Additionally, the boundaries of the target population should also incorporate the boundaries of time and space to anchor which specific group of individuals will participate in the study. Such considerations are crucial as this ensures the efficacy of the research and provides sufficient data for the analysis. Therefore, regarding the context of this study, the targeted population for this research is the Malaysian graduates, be it graduated from a local-based public or private Higher Education Institutions, aged 18 and above, residing from any state in Malaysia. The temporal timeframe should include graduates who had graduated after 1 or 2 years max from their studies and are still unable to secure unemployment in Malaysia, either public or private companies.

3.32 Sampling

As defined by Casteel & Bridier (2021), the sampling size is the operationalized group of study units recruited from a limited study population. These units are usually individuals that meet inclusion or exclusion criteria for their participation in the study. Accordingly, while there are about 202.4 thousand unemployed graduates in the year 2020, this research will use a sampling size of (N=100) as the researcher deems appropriate to incorporate this number of respondents for the descriptive nature of this study. To strengthen the responses from the targeted sample size, participant recruitment strategies will also be implemented to improve the sample size and ensure adequacy and representativeness of the intended sample group, which in this case, the unemployed Malaysian graduates, both men and women. Additionally, this sample size is also determined based on the six main factors affecting decisions on sample size, which are: (1) the research objective; (2) the

confidence interval; (3) the amount of variability in the population, (4) the confidence level); (5) factors of cost and time constraints; and lastly, (6) in most cases, the size of population (Casteel & Bridier, 2021). Furthermore, every one of the 100 respondents, particularly the unemployed Malaysian graduates, is the primary subject of this study.

3.33 Sampling Technique

To gather the data needed from 100 unemployed Malaysian graduates across Malaysia, the sampling technique that will be used to simplify the sampling process is the non-probability sampling technique. To define this technique, in research from Bacher et al. (2019), the non-probability sampling technique excludes the randomization of samples. In most cases, this technique is functional and more practical for researchers to find and collect data for descriptive research strategies. To further narrow it down, the type of non-probability sampling technique applied in this research is the purposive sampling technique. In this type of sampling technique, it is a process of selecting specific types of people who can provide the desired information, either they may be the only ones who have this helpful knowledge, or they meet the specific criteria fixed by the researcher (Etikan, 2017). Accordingly, there are two types of purposive sampling techniques: quota sampling and judgemental sampling. Since this study is relevant to a specific sample group, particularly the unemployed Malaysian graduates, the researcher deems the judgemental sampling technique appropriate as the data needed to test the hypotheses are collected from a specific set of special groups as mentioned beforehand. Therefore, using the purposive sampling technique will allow the researcher to gather more accurate data from the sample size allocated for this study, which is to identify the responsiveness of the unemployed Malaysian graduates to the established variables that contribute to the high unemployment rate in Malaysia.

3.4 Data Collection Method

The concept of data collection is defined as the process of collecting and measuring information gathered on the variables of interest through a systematic analysis that allows the researcher to answer the proposed research questions before conducting the intended study, test the validity and confidence of the hypotheses drawn and eventually, evaluate the findings of the data collected (Sekaran & Bougie, 2016). In this research, a quantitative analysis approach will be adopted, where the data collected will be numerically computed and analyzed to understand further the findings gathered. Unlike the qualitative analysis approach, the quantitative approach is cheaper in terms of cost-wise factors, and it is easier to conduct considering this analysis utilizes a standardized system that allows comparisons can be easily made and the size of the effect can be collectively measured. Accordingly, the classification of data will be explained in the following part.

3.4.1 Primary Data

The primary data is defined as the data collected from first-hand resources whereby this data has not been altered or removed from its original content or source. This makes the data more reliable and objective, thus making its validity much more robust than secondary data (Paradis et al., 2016). Regarding quantitative research strategies applied in this study, the primary data of this study will be the questionnaire method, mainly through the electronic process. Many researchers have used the form questionnaire method to collect the data needed as it can be administered easily also distributed electronically to the targeted respondents. Additionally, questionnaires are also generally inexpensive and less time-consuming than other primary data collection techniques such as interviews, observations, etc. (Johnston, 2014). There are several advantages of utilizing the electronic questionnaire method, one of which is that it can cover a broad spectrum of the geographical areas in the survey as the link directed to this survey can be accessed and done within the respondents' convenience, whether they are answering at their homes, offices, or wherever they are, at their own pace.

Another main advantage of this method is that the answers are processed automatically within the survey application, thus saving the researcher plenty of time (Paradis et al., 2016)**.** The research instrument used to form the electronic questionnaire survey questions will be Google Form for this study. It is known as one of the standard research instruments that most researchers use to collect information, given how easy it is for respondents to access and fill in their responses at their own pace (Paradis et al., 2016). The questions structured will be measured through the use of an interval scale, specifically, the Likert five-point scale, which measures the extent to which participants agree

or disagree with a given statement, and typically ranges from 1 (strongly disagree) to 5 (strongly agree) with a neutral point in the middle (e.g., neither agree nor disagree). Usually, it also uncovers the varying degrees of opinions from the respondents to the questions stipulated about the underlying issue of the study (Sekaran & Bougie, 2016). Additionally, a pretest was done on a few respondents first to test the questions' appropriateness and comprehension. This helps to rectify any inadequacies before sending out the finalized questionnaire survey form and thus reduces bias (Pandey, 2015). Further, to ensure the response rates from the targeted respondents are favourable, the researcher has also notified the respondents in advance of the anticipated survey with an informed consent statement stated in the questionnaire. This is to prevent the online questionnaire from being overlooked or accidentally deleted from the possibility of mistaking it as a 'spam' online survey invitation.

3.4.2 Secondary Data

The secondary data is known as the source of data that has already been readily accessible and published by others for another purpose of the study (Paradis et al., 2016). Some familiar secondary data sources include online articles, academic journals, reports, published census or statistical data, databases, etc. The utilization of these secondary resources has allowed the researcher to gather extensive information needed about the main topic of this study and provides sturdy resources to strengthen the findings of this study. However, before verifying the validity and reliability of the sources of the secondary data, these sources have been thoroughly evaluated through four critical criteria, which are the timeliness of data, the correctness of the data, the relevance of the data, and lastly, the costs of the data (Pandey, 2015).

3.5 Operationalisation and Measurement

Sekaran & Bougie (2016) stated that operationalization of variables is narrowing the abstract concepts to make them measurable in a tangible way by looking at behavioural perspectives, facets, or dimensions symbolized by these concepts. Subsequently, the researcher will then transcribe these elements into a set of measurable and observable ideas that follow through a series of steps. Firstly, the researcher needs to define the constructs they want to measure. Next, decide which instrument to measure the concepts, which may be one or more items or questions the researcher wants to find out. The third step is to develop a response format that is based on "strongly disagree" or "strongly agree" end-points and, lastly, evaluate the validity and reliability of the measurement scale (Sekaran & Bougie, 2016). Thus, the operationalization of variables is shown in Table 1 below regarding this study.

Accordingly, the questionnaire in this study has been divided into five sections; Section A will highlight the questions based on the respondents 'demographic data, which by this study is about unemployment of graduates; this section will primarily enquire on age, gender, the highest completed level of education, residing state, employment status, period of unemployment, what course did the graduates take in their Higher Education Institutions in Malaysia, and what type of university did the graduates go to; public or private university. Next, Section B questions will inquire about graduates' perception of the low wages crisis. Section C is then followed with inquiries related to job mismatch, and questions in Section D are associated with the perception of graduates on the quality of Higher Education Systems in Malaysia. Lastly, Section E questions are related to graduates' employability skills in Malaysia.

The Likert scale (refer to Table 1) measured the target respondent's response to the proposed constructs. Participants can either agree or disagree with a given statement in the questionnaire. The options typically range from 1 (strongly disagree) to 5 (strongly agree), with a neutral point of 3 in the middle (neither agree nor disagree). The utilization of Likert scales allows the researcher to find out the varying degree of responses that will eventually produce variation in the underlying issue of the study, which in this case, how the participants will respond to the proposed variables to their relationship with the high unemployment rate among graduates in Malaysia.

Table 1 Five-point Likert scale

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

3.5.1 Independent Variable

The proposed independent variables in this research study are as follows;

- Low wages
- Jobs mismatch
- The quality of Higher Education Systems in Malaysia
- The employability skills of graduates

The following table indicates the operationalization and measurement for the specified independent variables of this study:

Table 2: Operationalization and measrements of independent variables

Construct	Operational Definition	Indicator	Scale	Referred to
Low Wages	A minimum amount of remuneration that an employer is required to pay to their employees, for the performed task, within a given period of time, and this amount cannot be reduced upon the collective agreemenr or individual contract.	1. Minimum amount of wages earned by the graduates 2. Number of hours worked 3. Incentives earned	Likert Scale	(Yik, 2022).
Labor Mismatch	A situation where the job does not correspond with the graduates' available skills, experience, level of education and interests	1. Career path 2. Career plan 3. Job posting 4. Skills to perform the applied job 5. Level of education attained by graduates	Likert Scale	(Chen et al., 2020).
Quality of Higher Education Systems in Malaysia	The level of highest academic qualification achieved by graduates in any field of study	1. Integrated-working courses (i.e. entrepreneurship courses, business management courses etc.) 2. Level of education 3. Training implementation and evaluation 4. Lecturer's competencies 5. Quality of syllabus	Likert Scale	(Prisacariu & Shah, 2016).

Table 2: Operationalization and measrements of independent variables

Construct	Operational Definition	Indicator	Scale	Referred to
The Employability Skills of Malaysian Graduates	A set of personal attributes, skills, behaviours, and achievements — that makes graduates more likely to be marketable and gain employment in their chosen career path	1. Behavior and attitudes of graduates 2. Personal skills and attributes of graduates 3. Academic achievements	Likert Scale	(Andrews & Russell, 2012).

3.5.2 Dependent Variable

The dependent variable that is to be studied in this study is unemployment among graduates in Malaysia. Below is the operationalization and measurement of the stipulated dependent variable in this study:

Table 3: Operationalization and measrements of dependent variable

Construct	Operational Definition	Indicator	Scale
Unemployment among Graduates in Malaysia	The type of unemployment among the people with academic degrees that are unable to find suitable jobs in their matching fields	1. Minimum amount of wages earned by the graduates. 2. Level of education (Diploma, Degree, Master's Degree, PhD). 3. Graduates' unemployability skills. 4. Unmatched labor and skills of graduates	Likert Scale

3.6 Data Analysis

Given that this study is numerically analyzed, the researcher has utilized quantitative data analysis techniques to assess further and evaluate the quantitative data obtained from the selected research instrument. With the data that has been obtained through the questionnaire, the researcher has used it for data coding, keying the data in, and analyzing the data using specific programs to generate findings from the analysis. Hence, the quantitative analysis process begins. In research from Johnston (2014), the quantitative data analysis techniques are a systematic process to quantify the data collected and evaluate these data to test their measurability and reliability to form valid and conclusive hypotheses at the end of this study. In addition, most researchers utilize the quantitative data analysis techniques for its two advantages: (1) This technique allows the researcher to systematically input the data, categorize them accordingly, and compute and illustrate observations. This is usually known as descriptive statistics, and (2) quantitative analysis techniques allow the researcher to comprehensively understand how the variables are measured and interrelated and, therefore, conclude the phenomenon from the studied sample size (Zhang et al., 2018). Meanwhile, another type of quantitative analysis technique is inferential statistics, whereby this technique generates overall findings, and conclusions are quantified through inductive reasoning (Pandey, 2015**)**.

As such, while there are several notable data analysis programs such as *LISREL* from *Scientific Software International* (Salkind, 2012), *MATLAB®* from *MathWorks Inc.* (MathWorks, 2022)**,** etc., this study uses the *SPSS (Statistical Package for the Social Sciences)* data management and analysis program. This program will be compatible with the quantitative nature of this study as it can run statistical data analysis, descriptive statistics, the inferential and multivariate statistical analysis such as the ANOVA (analysis of variance), reliability analysis, and multiple regression analysis to explain the variance between multiple independent variables and one dependent variable.

3.6.1 Descriptive Statistical Analysis

As James and Simister (2020) defined, descriptive analysis refers to summarizing and illustrating data in a quantitative form. Most researchers opt for this statistical analysis as it is helpful for two purposes which are; (1) it provides essential information on the data set, and (2) it highlights the significant relationship between the variables in the study (Jaadi, 2021). In addition, there are several types of descriptive statistics to display illustrative analysis, such as the graphical methods, i.e., scatter plots, measures of central tendency and dispersion, and measurements of association, i.e., Chi-square tests and Correlations (Jaadi, 2021).

Accordingly, through descriptive statistics for this study, the research variables have been summarized by various aspects of the data. Each variable is determined based on the descriptive statistical analysis results. As part of the descriptive statistics analysis, the Pearson correlation matrix measures the strength, direction, and significance of the relationship between the proposed variables by following the guidelines as shown in Table 3 below. Briefly, the correlation ranges between -1.0 and +1.0. Consequently, to measure the significance of the variables, the researcher computes by using the appropriate Pearson correlation matrix formula to identify the relationship between the variables. Subsequently, a correlation of +1.0 signifies a perfect positive correlation, whereas a -1.0 indicates a perfect negative correlation, and 0 indicates no relationship between the postulated variables (Jaadi, 2021).

Size of Correlation	Interpretation
.90 to 1.00 (−.90 to −1.00)	Very high positive (negative) correlation
.70 to .90 (−.70 to −.90)	High positive (negative) correlation
.50 to .70 (−.50 to −.70)	Moderate positive (negative) correlation
.30 to .50 (−.30 to −.50)	Low positive (negative) correlation
.00 to .30 (.00 to −.30)	negligible correlation

Table 4: Guidelines on Interpreting the Size (Strength) of the Pearson Correlation Matrix

3.6.2 Inferential Statistical Analysis

In comparison to descriptive statistical analysis, inferential statistics refers to the procedure used to generalize findings or make conclusions about the population from the sample size we had selected (Zhang et al., 2018). The researcher also used the multiple regression analysis as this study uses more than one independent variable to explain its relationship with one dependent variable. As stated by Zhang et al. (2018), the multiple regression analysis provides the degree of variance and relationship between the independent variables and the dependent variable, thus indicating how much an increase of one unit of the independent variable would change the movement of the dependent variable, assuming the independent variables are the same.

3.6.3 Reliability in Quantitative Research

To test the goodness of the measures in terms of their consistency and solidity, a reliability test has been conducted in this study through Cronbach's alpha coefficient. This test will prove how the items measured are positively correlated to one another. Furthermore, reliability necessitates administering the same test to the same respondents twice, with a short time interval between those tests. Table # below indicates the degree of reliability according to the standard values of Cronbach's alpha coefficient. Accordingly, this study will follow the guidelines shown below to test the coefficient correlation between the two sets of variables stipulated. It is understandable that the closer the Cronbach's alpha to 1.0, the higher the degree of reliability (Hatem et al., 2018).

Cronbach's alpha	Degree of Reliability
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Table 5: Degree of Reliability based on Cronbach's alpha Coefficient (Hatem et al., 2018).

3.7 Summary of Chapter 3

To summarise, this chapter extensively covers the necessary parts of the research methodology process, which begins with introducing the research design employed in this study. In the research design part, the researcher has briefly explained the research strategies utilized in this study. The research design also provides a guideline for the researcher to develop sturdy findings and analyses from the proposed variables. In the study population and sampling procedures section, the researcher has highlighted the specific sample size employed in this study, the sampling techniques that will be compatible with the nature of this study, and the general population covered within the appropriate time and area. Accordingly, the data collection method, be it primary data or secondary data, has been thoroughly explained to clarify for the readers of this study how each data is meticulously analyzed through appropriate tools. This chapter has also identified the operationalism and measurement of variables to indicate how each variable proposed in this study was measured despite its abstract factors. Lastly, the researcher has stated the data analysis techniques used to compute, analyze, and make conclusions about the hypothesized variables using descriptive statistical analysis and inferential statistical analysis.

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Introduction

The primary purpose of this chapter is to illustrate and analyse the data collected from targeted respondents through the administered questionnaire survey that has been distributed electronically via the Google Form link. The data to be analysed are the collected responses which were mainly the Malaysian graduates, be they graduated from a local-based public or private Higher Education Institutions, aged 18 and above, residing from any state in Malaysia, in compliance to the temporal timeframe, which includes graduates who had graduated after 1 or 2 years max from their studies and are still unable to secure unemployment in Malaysia, either public or private companies. Furthermore, the findings from the questionnaire survey are analyzed using descriptive statistical analysis and inferential statistical analysis, which are the reliability test and correlation analysis through the utilization of the *SPSS (Statistical Package for the Social Sciences)* statistical tool. Moreover, to ensure the goodness of the data in terms of its reliability, validity, and unidimensionality, various statistical methods have been applied to test the relationship between the different proposed variables from which underlying factors were extracted to measure these variables. Furthermore, the data were also analyzed using the structural equation model and the multiple regression analysis to explain the variance between multiple independent variables and one dependent variable. Lastly, this chapter also concludes by rejecting or accepting the proposed hypotheses.

4.2 Survey Response Analysis

4.2.1 Response Rate

Based on the Graduates Statistics 2020 published by DOSM (Department of Statistics Malaysia), there were 5.36 million graduates in that year, which accounted for 4.56 million graduates that comprised employed and unemployed graduates in the Malaysian labour force. Meanwhile, the remaining 800.9 thousand graduates recorded were counted as outside the labour force (DOSM, 2020). Out of the 4.56 million graduates, 202.4 thousand graduates were recorded to fall under unemployment in the year 2020, increased to 4.4% compared to the previous year of 3.9% (2019) (DOSM, 2020). To strengthen the responses from the targeted sample size, participant recruitment strategies will also be implemented to improve the sample size and ensure adequacy and representativeness of the intended sample group, which in this case, the unemployed Malaysian graduates, both men and women. Additionally, this sample size is also determined based on the six main factors affecting decisions on sample size, which are: (1) the research objective; (2) the confidence interval; (3) the amount of variability in the population, (4) the confidence level); (5)

factors of cost and time constraints; and lastly, (6) in most cases, the size of population (Casteel & Bridier, 2021). Furthermore, every one of the 100 respondents, particularly the unemployed Malaysian graduates, is the primary subject of this study. To determine the appropriate sample size for this study, the Taro Yemane's (1973) method has been applied using the following formula below;

$$n = \frac{N}{1 + Ne^2}$$

Where,

n=sample size

N = population size = 37,581

 = error (0.05)

reliability level 95%

or; = level of precision always set the value of 0.05

Accordingly, while there are about 202.4 thousand unemployed graduates in the year 2020, this research has used a population size of (N=133) as the researcher deems appropriate to incorporate this number of respondents for the descriptive nature of this study. Thus, applying the laid-out formula above, the computation is shown as follows whereby;

$$n = \frac{133}{1 + 133\ (0.05)^2}$$

$$n = 99.8 \approx 100$$

From the computed n-value above, a sample size of 100 targeted respondents across Malaysia is used to gather data for this research. In order to gather the needed information, an online-administered questionnaire survey via Google Forms has been distributed electronically through the non-probability sampling technique. According to Bacher et al. (2019), the non-probability sampling technique excludes the randomisation of samples. In most cases, this technique is functional and more practical for researchers to find and collect data for descriptive research strategies. More specifically, the non-probability sampling technique applied in this study is the purposive sampling technique.

This type of sampling technique is known as selecting specific types of people who can provide the desired information; either they may be the only ones who have this helpful knowledge or meet the specific criteria fixed by the researcher (Etikan, 2017). There are two types of purposive sampling techniques: quota sampling and judgemental sampling. Given that this study investigates a specific sample group, particularly the unemployed Malaysian graduates, the researcher deems the judgemental sampling technique appropriate, considering the data needed to test the hypotheses collected is from a specific set of particular groups. Using the purposive sampling technique has given convenience to the researcher to gather more accurate data from the sample size allocated for this study, which is to find out the influencing factors that contribute to the high unemployment among graduates in Malaysia.

Based on the collected questionnaire responses, 102 responses have been recorded, representing a response rate of 102%. Fincham (2008) stated that an approximate response rate of 60% should be the goal of most researchers, thus proving that the response rate achieved for this study is acceptable and complies with the agreeable standards for response rates in surveys. Further, as all of the questions in the questionnaire were set as "*required*", the responses received are adequate and fulfill the questionnaire criteria, giving enough information to conduct further data analysis on the findings collected.

Table 6: Frequency Table

Category/Variable	Number of Respondents	Valid Percent (%)
A1: Gender		
Female	71	69.6
Male	31	30.4
Total	**102**	**100.0**
A2: Age		
21	4	3.9
22	7	6.9
23	14	13.7
24	17	16.7
25	30	29.4
26	11	10.8
27	11	10.8
28	4	3.9
29	4	3.9
Total	**102**	**100.0**
A3: Ethnicity		
Chinese	29	28.4
Indian	17	16.7
Malay	53	52.0
Others	3	2.9
Total	**102**	**100.0**

Table 6: Frequency Table

A4: What is your current residing state?		
Johor	4	3.9
Kedah	3	2.9
Kelantan	15	14.7
Labuan	3	2.9
Malacca	14	13.7
Negeri Sembilan	6	5.9
Pahang	4	3.9
Perak	1	1.0
Perlis	5	4.9
Pulau Pinang	4	3.9
Sabah	4	3.9
Sarawak	1	1.0
Selangor	27	26.5
Terengganu	5	4.9
Wilayah Persekutuan Kuala Lumpur	4	3.9
Wilayah Persekutuan Putrajaya	2	2.0
Total	**102**	**100.0**
A5: Which of the following is your highest level of education?		
Bachelor's Degree	66	64.7

Table 6: Frequency Table

Diploma/Matriculation Studies	10	9.8
Doctoral Degree (PhD)	3	2.9
Master's Degree	20	19.6
Professional Accounting Qualifications (ACCA,CFA,CIMA, etc.)	3	2.9
Total	**102**	**100.0**
A6: Which of the following Highest Education Institution did you attend?		
Others (Matriculation Colleges, Polytechnics, Kolej MARA, etc.)	4	3.9
Private University or College	57	55.9
Public University or College	41	40.2
Total	**102**	**100.0**
A7: Which of the following field of study did you enroll in?		
Accounting & Finance	16	15.7
Architecture & Building	5	4.9
Business Management & Administration	26	25.5
Computing & IT	9	8.8
Education	5	4.9
Engineering & Engineering Trades	12	11.8

Table 6: Frequency Table

Hospitality & Tourism	8	7.8
Law	2	2.0
Medicine & Healthcare	2	2.0
Science (Applied Science/Physical Science/ Life Science)	5	4.9
Others	12	11.8
Total	**102**	**100.0**
DV : Are you presently employed?		
No	59	57.8
Yes	43	42.2
Total	**102**	**100.0**

4.2.2 Respondent and Demographic Profiles

In research studies, the demographic and socioeconomic information gives researchers the pivotal data regarding their targeted research participants to determine whether their sample size represents their target population for generalization purposes (Salkind, 2010). Based on the distributed questionnaire survey by Google Forms, the researcher has managed to collect the responses from 102 Malaysian graduates, which exceeded the targeted sample size of this study (n=100).

As such, referring to the presented Table 6 above, to assess the demographic and socioeconomic factors of the respondents, the variables covered in this research are the respondent's age, gender, the highest completed level of education, what is their residing state, what course did the graduates take in their Higher Education Institutions in Malaysia, what type of university did the graduates go to; public or private university, and lastly, the respondent's employment status, which is primarily the depending variable that is to be tested in this study. By analysing the gathered demographic data, it provides a thorough understanding of the overall characteristics of the research participants.

Of those 102 respondents, 71 (69.6%) are male respondents, whereas the remaining 31 (30.4%) are female respondents. As for the age group category, this study has collected responses from graduates aged 21 to 29 years old. The majority of these graduates fall into the 25-year-old age group, which is about 30 respondents (29.4%), followed by the second-highest age group of 24, with 17 respondents (16.7%). The third-ranking falls under the 23-year-old age group, with 14 (13.7%) of the 102 respondents. The remaining portion is followed by the age of 21 years old, comprising 4 (3.9%) of the 102 respondents; 7 (6.9%) of them are aged 22 years old; 26 and 27 years old have a total of 11 respondents each, totaling up to (21.6%); and four (4) respondents each for the age of 28 and 29 years old with a cumulative percentage of 7.8% in total.

Following the category of ethnicity, respondents that fall under the Malay race are found to be dominant out of the 102 respondents with a total of 53 (52.0 %), followed by the Chinese respondents which are 29 (28.4 %), then Indian respondents with 17 (16.7 %), and the remaining 3 (2.9 %) for Others. As for the residing state, this study includes all the 14 states in Malaysia, including the Federal Territory of Labuan, Federal Territory of Kuala Lumpur, and Federal Territory of Putrajaya. To be more precise, 4 (3.9 %) out of 102 represent respondents from Johor; 3 respondents each from Kedah and Labuan with a cumulative percentage of 5.8 %; then 15 (14.7 %) from Kelantan; 14 (13.7 %) from the state of Malacca; 6 (5.9 %) from Negeri Sembilan; 4 respondents each from the states of Pahang, Pulau Pinang, Sabah, and Wilayah Persekutuan Kuala Lumpur with a total percentage of 15.6 %; 1 respondent each from the states of Perak and Sarawak (2.0%); Perlis and Terengganu with five (5) respondents each (9.8 %); 2 (2.0 %) respondents represent Wilayah Persekutuan Putrajaya; and lastly, 27 (26.5 %) respondents represent the highest number of respondents out of 102 from the state of Selangor among the other states.

The following demographics category enquires about the respondent's highest level of education. Out of the 102 respondents, the majority of them attained a Bachelor's Degree with a total of 66 (64.7 %) respondents; followed by 20 (19.6 %) of these 102 respondents who acquired a Master's Degree; then 10 (9.8 %) of them had Diploma/Matriculation studies; 3 (2.9 %) respondents had a Doctoral Degree (Ph.D.) and the same quantity of 3 (2.9 %) goes for respondents who achieved Professional Accounting Qualifications (ACCA, CIMA, CFA, etc.). Further, the researcher has also enquired about the Highest Education Institution (HEI) that the respondents had attended as part of this study's demographic analysis. As such, among the 102 respondents, most of them attended the Private University or College institutions with a total of 57 (55.9 %), followed by 41 (40.2 %) of them who attended Public University or College institutions, and lastly, 4 (3.9 %) respondents which are the

least number among all who attended other categories of Higher Education Institution such as Matriculation Colleges, Polytechnics, Kolej MARA, etc.

Additionally, the following demographics category enquires about the respondent's field of study they had enrolled in their university/college. In this category, the researcher has included the most common courses offered in the Higher Education Institutions in Malaysia, be it public or private ones. Thus, based on the data collected, the Business Management & Administration course has the highest number of respondents with a total of 26 (25.5 %) out of the 102 respondents; followed by the Accounting & Finance course with 16 (15.7 %) respondents; 12 (11.8) respondents enrolled in the Engineering & engineering Trades course; 9 (8.8 %) respondents in Computing & IT; 8 (7.8 %) for Hospitality & Tourism; 5 respondents each for courses of Architecture & Building, Education, and Science (Applied Science, Physical Science, Life Science) with a total percentage of 14.7 %, 2 respondents each for Law and Medicine & Healthcare courses, totalling up to 4.0% altogether. Lastly, 12 (11.8 %) respondents represent other courses than the listed ones.

The last demographics category is the current employment status of the respondents, which is also the dependent variable that is to be tested with the established independent variables in this study. Among the 102 respondents, 59 (57.8 %) are primarily not employed after graduating from university/college, whereas 43 (42.2 %) are employed.

4.2.3 Itemised Questions for Low Wages with Unemployment

No.	Statement	1	2	3	4	5	Median
1	Do you agree that low wages in the available jobs are one of the main obstacles for graduates finding a job nowadays in Malaysia?	0%	0%	5.9%	11.8 %	82.4 %	Strongly Agree
2	With the announcement of an increased minimum wage from RM 1,200 to RM 1,500 by May 1, 2022, do you agree that this wage level increment benefits graduates from finding stable jobs in Malaysia?	13.7 %	2.0%	7.8%	5.9%	70.6 %	Strongly Agree
3	Do you agree that the assessment of employment conditions such as skills and experience directly influence a worker's salary offer?	0%	5.9%	1.0%	16.7 %	76.5 %	Strongly Agree
4	Do you think the current minimum wage in Malaysia is equitable to decent, livable wages that reflect the increasing local living costs and the changes in consumption patterns?	22.5 %	3.9%	6.9%	2.0%	64.7 %	Strongly Agree
5	With reference to the image above, do you agree with the stipulated idea that increasing the minimum wage would lead to higher unemployment?	10.8 %	6.9%	7.8%	7.8%	66.7 %	Strongly Agree
6	Do you agree if graduates who seek jobs nowadays are rather demanding higher pay than accepting what's been offered by hiring employers?	8.8%	2.9%	11.8 %	10.8 %	65.7 %	Strongly Agree
7	Do you agree that many graduates nowadays withdraw from employment due to low wages, even if the minimum wage in Malaysia has increased to RM 1,500 since 2020?	0%	5.9%	7.8%	10.8 %	75.5 %	Strongly Agree

No.	Statement	1	2	3	4	5	Median
8	Do you agree that one of the contributing factors that push more graduates to work in the gig economy (food delivery riders, e-hailing drivers, etc.) is influenced by the low wages in Malaysia?	2.0%	2.0%	1.0%	13.7 %	81.4 %	Strongly Agree
9	Do you agree that the new minimum wage increment in Malaysia requires further comprehensive study before implementation?	3.9%	1.0%	4.9%	10.8 %	79.4 %	Strongly Agree
10	Referring to the image below, do you agree if this is relatable to the current situation faced by Millenials in Malaysia, particularly the fresh graduates?	1.0%	1.0%	3.9%	7.8%	86.3 %	Strongly Agree

Table 7: Itemised Questions for Low Wages with Unemployment in Row Percentage

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Table 7 above shows itemised questions for the variable, low wages with unemployment among graduates in Malaysia in general, based on the questionnaire survey distributed to the targeted respondents in this study. The researcher has proposed 10 question statements to study the perception of low wages with unemployment among graduates in Malaysia. The first statement inquires whether respondents agree that low wages in the available jobs are one of the main obstacles for graduates finding a job nowadays in Malaysia. Based on this statement, 82.4% of the respondents strongly agree that low wages of the available jobs are one of the main obstacles for graduates finding a job in Malaysia nowadays. In comparison, 11.8% agreed with the statement and the remaining 5.9% remained neutral. Following the second statement is whether the respondents agree with the recent wage level increment from RM 1,200 to RM 1,500 by May 1, 2022, benefits graduates from finding stable jobs in Malaysia. From this statement, 70.6% of the total respondents strongly agree that this wage level increment benefits the graduates, while 13.7% strongly disagree with the statement, and the remaining respondents are neutral (7.8%) or agree (5.9%) to disagree (2.0%) with this statement.

Further, the third statement inquires whether the respondents agree that assessing employment conditions such as skills and experience directly influences a worker's salary offer. It is found that 76.5% strongly agree that employment conditions such as skills and expertise directly correlate to the worker's salary offer. Following the fourth statement is whether the respondents think that the current

minimum wage in Malaysia is equitable to decent, livable wages that reflect the increasing local living costs and the changes in consumption patterns. 22.5% of the respondents strongly disagree with this statement. However, 64.7% of them think otherwise. Most of the respondents strongly agree that the current minimum wage in Malaysia is equitable to decent, livable wages that reflect the increasing local living costs and the changes in consumption patterns. The fifth statement is proposed based on Figure 7 below, which indicates whether respondents agree that increasing the minimum wage would lead to higher unemployment. 66.7% of the 102 respondents strongly agree with the idea presented in the figure shown. In addition, the sixth statement proposed whether the respondents agree that graduates who seek jobs nowadays are rather demanding higher pay than accepting what has been offered by the hiring employers. The results thus show that 65.7% of the respondents strongly agree that graduates are demanding higher pay than what's been offered by hiring employers, whereas 11.8% remained neutral with this statement. The following statement inquires whether the respondents agree that many graduates nowadays withdraw from employment due to low wages, even if the minimum wage in Malaysia increased to RM 1,500 in 2020. 75.5% of the respondents strongly agree with this statement; however, 5.9% disagree, and 7.8% are neutral.

The eighth statement proposed whether the graduates agree that one of the contributing factors that push more graduates to work in the gig economy, such as food delivery riders, e-hailing drivers, etc., is influenced by the low wages in Malaysia. The result has shown that 81.4% strongly agree that low wages are one of the contributing factors that push these unemployed graduates to work in the gig economy, which is mostly food delivery riders (Foodpanda, GrabFood, etc.) and e-hailing drivers (GrabCar, MyCar, etc.) in Malaysia nowadays. The ninth statement inquires whether the respondents agree that the new minimum wage increment imposed in Malaysia requires further comprehensive study before implementation. 79.4% of the respondents strongly agree with the statement that indicates more study is needed prior to the new minimum wage implementation in the country. The last statement refers to Figure 8 below, which inquires whether the respondents agree if the idea presented in the figure is relatable to the current situation faced by Millenials in Malaysia, particularly the fresh graduates. 86.3% of the respondents strongly agree with the statement in the figure, which indicates the majority for this case.

4.2.4 Itemised Questions for Jobs Mismatch with Unemployment

No.	Statement	1	2	3	4	5	Median
1	With the aggravated impact of Covid-19 on the Malaysian economic situation, do you agree that it has caused fewer job opportunities, thus resulting in a high rate of job mismatch among graduates?	0%	2.0%	4.9%	12.7%	80.4%	Strongly Agree
2	Do you agree that most young graduates nowadays accept low-and semi-skilled jobs that pay 2.3 to 3 times lower though they may be overqualified for these underpaid jobs?	0%	0%	13.7%	7.8%	78.4%	Strongly Agree
3	Do you agree that job mismatch plays a crucial role in influencing unemployment among graduates in Malaysia?	0%	1.0%	5.9%	15.7%	77.5%	Strongly Agree
4	Referring to the following dimensions of job mismatches, do you agree that these dimensions are the attributing factors to the increasing rate of unemployment among graduates in Malaysia? [Overeducation - Graduate's level of education/qualification	2.9%	0%	8.8%	15.7%	72.5%	Strongly Agree
5	Referring to the following dimensions of job mismatches, do you agree that these dimensions are the attributing factors to the increasing rate of unemployment among graduates in Malaysia? [Undereducation - Graduate's level of education/qualification	1.0%	4.9%	2.9%	19.6%	71.6%	Strongly Agree
6	Referring to the following dimensions of job mismatches, do you agree that these dimensions are the attributing factors to the increasing rate of unemployment among graduates in Malaysia? [Overskilled - Level of skills (usually broadly defined]	2.0%	0%	6.9%	17.6%	73.5%	Strongly Agree
7	Referring to the following dimensions of job mismatches, do you agree that these dimensions are the attributing factors to the increasing rate of unemployment among	1.0%	2.9%	4.9%	17.6%	73.5%	Strongly Agree

No.	Statement	1	2	3	4	5	Median
	graduates in Malaysia? [Under-skilled - Skill level is below job's requirements]						
8	Referring to the following dimensions of job mismatches, do you agree that these dimensions are the attributing factors to the increasing rate of unemployment among graduates in Malaysia? [Field of education to job mismatch - Field of study does not match the occupational area of the job	2.9%	2.9%	2.0%	15.7%	76.5%	Strongly Agree
9	Referring to the following dimensions of job mismatches, do you agree that these dimensions are the attributing factors to the increasing rate of unemployment among graduates in Malaysia? [Skills shortage - Certain skills are in short supply (or ove	2.9%	0%	2.0%	22.5%	72.5%	Strongly Agree
10	Referring to the following dimensions of job mismatches, do you agree that these dimensions are the attributing factors to the increasing rate of unemployment among graduates in Malaysia? [Skills gap - Level of available skills of workers is lower	2.9%	0%	4.9%	20.6%	71.6%	Strongly Agree
11	Do you agree that job mismatches relate to graduates being picky with the available jobs despite the disproportionate wages in Malaysia?	2.9%	2.0%	2.9%	20.6%	71.6%	Strongly Agree
12	Do you agree that the policymakers should reform to upskill the labor force to meet the labor market demands that can produce high-skilled labor among graduates?	0%	0%	2.9%	17.6%	79.4%	Strongly Agree

Table 8: Itemised Questions for Jobs Mismatch with Unemployment in Row Percentage

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Increase in minimum wage may lead to unemployment

By Goh Pei Pei - February 6, 2022 @ 8:48pm

File pic

KUCHING: Increasing the minimum wage could eventually lead to a higher unemployment rate as some employers and companies would end up hiring fewer workers.

Sarawak Housing and Real Estate Developers' Association (Sheda) president Augustine Wong Chung Ho said the negative impact of a higher minimum wage can only be offset by increased productivity by workers or having companies trimming down their manpower.

"Some employers are forced to pay more in wages, hence they will end up hiring fewer workers while workers who were perhaps willing to work for lower wages would be denied work opportunities as a result of government mandated (or increased) minimum wage," he said.

Wong said increasing the minimum wage without examining the underlying problems and cause of low minimum income will not be sustainable.

Figure 7: Statement 5 - *Increase in minimum wage may lead to unemployment (Goh, 2022).*

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Millennials Didn't Kill the Economy. The Economy Killed Millennials.

The American system has thrown them into debt, depressed their wages, kept them from buying homes—and then blamed them for everything.

By Derek Thompson

Figure 8: Statement 10 - *Millennials Didn't Kill the Economy. The Economy Killed Millennials (Thompson, 2018).*

The following variable proposed in this study is the jobs mismatch with unemployment among graduates in Malaysia in general, presented in Table 8 above in the form of itemised questions in row percentage. The statements listed are based on the questionnaire survey distributed to the targeted respondents in this study. The researcher has proposed 12 question statements under this variable to discover the perception of job mismatch with unemployment among graduates in Malaysia. The first statement inquires if the respondents agree that with the aggravated impact of Covid-19 on the Malaysian economic environment has caused fewer job opportunities, thus resulting in a high rate of job mismatch among graduates. The result has shown that 80.4%, which indicates the majority of the respondents, strongly agree with this statement that the pandemic Covid-19 has caused fewer job opportunities, hence leading to a high rate of job mismatch among graduates in Malaysia. The following statement in the job mismatch variable proposes whether the respondents agree that most young graduates nowadays accept low-and semi-skilled jobs that pay 2 to 3 times lower though they may be overqualified for these underpaid jobs. 78.4% of the respondents strongly agree with this statement, whereas 13.7% are neutral in this query.

Furthermore, the third statement entails whether the respondents agree that job mismatch plays a crucial role in influencing unemployment among graduates in Malaysia. The result has shown that 77.5% of the respondents, which indicates the majority of the 102 respondents, found this statement agreeable to the prevalent unemployment issue among graduates in Malaysia. The fourth statement to the tenth statement is based on the dimensions of job mismatches by Kriechel and Vetter (2019), which is to study whether the respondents of this study agree with these dimensions on its influence as the attributing factors to the increasing rate of unemployment among graduates in Malaysia. In the first dimension of job mismatch, *Overeducation* - Graduates' level of education exceeding the required level of employment, 72.5% of the respondents strongly agree that this job mismatch dimension is one of the contributing factors to graduates' unemployment in Malaysia. Followed by the next dimension of job mismatch is *Undereducation,* which is contrary to Overeducation; 71.6% strongly agree with the influence of this job mismatch dimension on the unemployment among graduates in Malaysia.

Further, the sixth statement proposes whether the respondents agree that the job mismatch dimension, *Overskilled - Level of skills, generally defined as knowledge, capabilities, competencies, etc., exceeds the mandatory job requirements*; contributes to the increasing unemployment rate among graduates in Malaysia. The result has shown that 73.5% strongly agree with this job mismatch dimension to its impact on graduates' unemployment. In contrast to the Overskilled job mismatch dimension, 73.5% of the respondents also strongly agree that the *Under-skilled* job mismatch dimension contributes to the graduates' unemployment in Malaysia. Following the next job mismatch dimension of the *Field of Education - The field of study is incompatible with the job scope*; 76.5% strongly agree that this dimension contributes to unemployment among graduates in Malaysia. The following statement is followed by the dimension of the *Skills shortage (or over-supply) - The shortage or oversupply of specific skills that are usually expressed as insufficient for job seekers to fill in the applied jobs*; 72.5% strongly agree that this dimension contributes to the unemployment issue among graduates in Malaysia due to the job mismatch between the graduates' needs and employers' demands. The tenth statement inquires about the last job mismatch dimension; *Skills gap - The available level of skills attained by graduates is lower than the required level of skills to perform the specific job.* Under this dimension, 71.6% of the respondents strongly agree that the skills gap among graduates influences the rising unemployment rate in Malaysia.

In addition, the eleventh statement proposes whether the respondents agree that job mismatches directly relate to graduates being picky with the available jobs despite the disproportionate wages level in Malaysia. The result has shown that 71.6% of the total 102 respondents strongly agree with this statement, proving that the job mismatch factor influences graduates to be picky with the available jobs considering they may be over-or-under qualified for those jobs, therefore resulting in a high rate of vacant job positions that are incapable of being filled due to incompatibilities of skills and competencies of graduates. The last statement inquires whether the respondents agree that the policymakers should reform by upskilling the labour force in Malaysia to meet the required labour market demands that can produce high-skilled graduates. Out of the 102 respondents, 79.4% strongly agree that policymakers in Malaysia should reform and upskill the labour force to meet the required labour market demands that can eventually develop high-skilled graduates.

4.2.5 Itemised Questions for Quality of Higher Education Systems in Malaysia with Unemployment

No.	Statement	1	2	3	4	5	Median
1	Do you agree that the quality of the Higher Education System in Malaysia has a contributing factor to the unemployment issue among graduates?	2.0%	3.9%	7.8%	9.8%	76.5 %	Strongly Agree
2	Do you think that the current quality of the Higher Education System in Malaysia is aligned with the required industry needs to ensure the graduate's future workplace employability?	3.9%	5.9%	6.9%	11.8 %	71.6 %	Strongly Agree
3	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Lecturer's Teachings Competency, Skills, Knowledge, Personal Values, Attitude and Motivation	2.9%	0%	4.9%	13.7 %	78.4 %	Strongly Agree
4	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Leadership Qualities of the Lecturer's]	2.9%	0%	2.9%	12.7 %	81.4 %	Strongly Agree
5	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Classroom Climate]	2.9%	0%	6.9%	8.8%	81.4 %	Strongly Agree
6	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [The Quality of Educational Syllabus and Curriculum]	2.9%	0%	6.9%	11.8 %	78.4 %	Strongly Agree
7	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Lecturer's Area of Expertise]	2.9%	0%	4.9%	10.8 %	81.4 %	Strongly Agree

8	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Continous Trainings and Courses for Lecturers]	2.9%	0%	3.9%	11.8 %	81.4 %	Strongly Agree
9	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Higher Education Institution's (HEI) Academics Structure]	2.9%	0%	5.9%	10.8 %	80.4 %	Strongly Agree
10	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Relevancy of Curriculums Structuted With Various Industries	2.9%	0%	3.9%	11.8 %	81.4 %	Strongly Agree
11	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Poor and Inferior Quality of Assessment Process]	2.9%	0%	3.9%	10.8 %	82.4 %	Strongly Agree
12	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Ineffective Presentations Through Lecturing]	2.9%	0%	3.9%	14.7 %	78.4 %	Strongly Agree
13	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Lack of Active Independent Learning Encouragement]	2.9%	0%	3.9%	13.7 %	79.4 %	Strongly Agree
14	Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? [Vague and Unclear Aims, Objectives, and Standards]	2.9%	0%	2.0%	12.7 %	82.4 %	Strongly Agree
15	Do you agree that Higher Education Institutions (HEI) in Malaysia are not providing industry-focused programs/courses that can enhance the graduate's skills and employment?	2.0%	2.0%	3.9%	10.8 %	81.4 %	Strongly Agree

16	Do you think the Ministry of Higher Education (MoHE) should reform the curriculum structure of Higher Education Institutions in Malaysia to ensure it is based on the needs of the industries?	2.0%	2.0%	3.9%	11.8 %	80.4 %	Strongly Agree
17	Do you agree that the Higher Education System in Malaysia should embrace the internalization of tertiary education to improve the local tertiary education quality?	4.9%	0%	8.8%	8.8%	77.5 %	Strongly Agree

Table 9: Itemised Questions for Quality of Higher Education Systems in Malaysia with Unemployment in Row Percentage

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Presented in Table 9 above are the itemised questions for the variable quality of Higher Education Systems in Malaysia with unemployment among graduates in Malaysia in general, based on the questionnaire survey distributed to the targeted respondents in this study. The researcher has proposed 17 question statements to study the perception of the quality of Higher Education Systems in Malaysia with graduates' unemployment in Malaysia. The first statement indicates whether the respondents agree that the quality of the Higher Education System in Malaysia is one of the contributing factors to the unemployment issue among graduates. Based on this statement, 76.5% of the total respondents strongly agree that the Higher Education System in Malaysia factors into the graduates' unemployment in Malaysia. The second statement proposes whether the graduates agree that the current quality of the Higher Education System in Malaysia is aligned with the required needs to ensure the graduates' future workplace employability. The result has shown that 71.6% strongly agree with this statement, showing that most respondents still think that the current Higher Education System in Malaysia aligns with the current industry needs, though this variable has a contributing factor in graduates' unemployment in the country.

Further, from the 3rd to the 14th statement, it analyses whether the respondents agree on several factors that affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment. These factors are (1) the Lecturer's teachings competency, skills, knowledge, personal values, attitude and motivation; (2) Leadership qualities of the Lecturer; (3) Classroom climate; (4) The quality of educational syllabus and curriculum; (5) The lecturer's area of expertise; (5) Continous training and courses for lecturers; (6) The Higher Education Institutions (HEI) academics structure; (7) The relevancy of curriculums structured with various industries; (8) Poor and inferior quality of assessment process; (9) Ineffective presentations through lecturing; (10) Lack

of active independent learning encouragement; and lastly, (11) Vague and unclear aims, objectives, and standards. Based on the statements proposed with the following factors, an average total of 80.6% of the respondents strongly agree that these factors affect the effectiveness of the Higher Educational Institutions to develop quality graduates for their future employment. This also shows that these factors have proven to be impactful on the quality of the Higher Education System in Malaysia considering that the competencies of educators and the quality of Higher Education in terms of academic structures, curriculum standards, etc., play a pivotal role in developing quality graduates upon preparing them for their future workplace employability.

Following the 15th statement on whether the respondents agree that Higher Education Institutions (HEIs) in Malaysia are not providing industry-focused programs or courses that can enhance the graduates' skills and employment, 81.4% of the respondents strongly agree with this statement. Mustafa (2019) stated that, as it was highlighted by The Malaysian Education Blueprint 2015-2025, the collaboration between universities and the industry needs is crucial, particularly in the curriculum design and academic delivery through partnership models such as apprenticeships, hands-on training, real-life workplace simulations, and specialised graduates' training programs that could enrich the graduates' knowledge and their employability. The 16th statement inquires whether the respondents agree that the Ministry of Higher Education (MoHE) should reform the curriculum structure of Higher Education Institutions (HEIs) in Malaysia to ensure it is based on the needs of industries. As a result, 80.4% of the respondents strongly agree that the reformation of HEIs is necessary to improve the quality standards of Higher Education in Malaysia and also to develop quality graduates altogether. The last statement proposes whether the respondents agree that the Higher Education Systems in Malaysia should embrace the internalisation of tertiary education to improve the country's higher education quality, and 77.5% of the respondents strongly agree with this statement whereby Malaysia should align the tertiary education to the global standards to improve the Higher Education Systems in Malaysia, thus enhancing the tertiary education quality altogether.

4.2.6 Itemised Questions for Employability Skills of Graduates with Unemployment

This section discusses itemised questions for the variable in graduates' employability skills with unemployment in general, based on the questionnaire survey distributed to the targeted respondents in this study. Under this variable, there are seven (7) employability skills that the researcher has adopted from the study conducted by Hamid et al. (2014) in order to study the prominent impact of these attributes on graduates' unemployment in Malaysia. These skills are — (1) Interpersonal skills; (2) Computing skills; (3) Enterprise and entrepreneurial skills; (4) Communication skills; (5) Thinking skills; (6) Management skills; and lastly, (7) Teamwork and collaborative skills. Accordingly, Table 9 below shows the itemised questions for the variable employability skills of graduates with unemployment among graduates in Malaysia in general, based on the questionnaire survey distributed to the targeted respondents in this study

Interpersonal Skills							
No.	**Statement**		**1**	**2**	**3**	**4**	**5**	**Median**
1	Interpersonal_Skill : Based on the following dimensions of employability skills, do you agree that most graduates nowadays lack the necessary skills or competencies to enter the labor market? [Interpersonal Skills - The skills to interact with others]		2.0%	3.9%	7.8%	9.8%	76.5 %	Strongly Agree
2	Which of the following attributes describe you best that you may be lacking for the needed interpersonal skills based on employers' expectations in graduates?							
	i.	Ability to work and contribute in groups/teams	14.7 %	32.4 %	13.7 %	19.6 %	19.6 %	Disagree
	ii.	Ability to understand other peoples' problems, emotions, concerns, and feeling	8.8%	29.4 %	20.6 %	18.6 %	22.5 %	Disagree
	iii.	Ability to negotiate with subordinates or colleagues	5.9%	22.5 %	22.5 %	31.4 %	17.6 %	Agree
	iv.	Ability to encourage and motivate others	7.8%	19.6 %	29.4 %	18.6 %	24.5 %	Neutral
	v.	Ability to network	5.9%	13.7 %	26.5 %	25.5 %	28.4 %	Strongly Agree

Interpersonal Skills							
No.	**Statement**	**1**	**2**	**3**	**4**	**5**	**Median**
vi.	Ability to work in a diverse working culture	13.7 %	37.3 %	13.7 %	14.7 %	20.6 %	Disagree
vii.	Ability to deal with superiors	5.9%	20.6 %	21.6 %	22.5 %	29.4 %	Strongly Agree
viii.	Ability to lead & manage people	5.9%	6.9%	18.6 %	28.4 %	40.2 %	Strongly Agree

Table 10: Itemised Questions for Employability Skills of Graduates with Unemployment in Row Percentage - Interpersonal Skills

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Table 10 above presents the itemized questions for employability skills of graduates with unemployment in the aspect of interpersonal skills, which are defined as the skills of graduates to interact with others. Under this skill, the researcher has proposed eight attributes to assess the graduates' interpersonal skills based on the employers' expectations. Based on the first attribute, which is the ability to work and contribute in groups or teams, 32.4% of the respondents disagree that most graduates lack this ability. Further, in the second attribute, 29.4% out of the 102 respondents also disagree that most graduates are insufficient the ability to comprehend other people's feelings, problems, emotions, and concerns. This can be inferred that most graduates in Malaysia are perceived as understanding and considerate of other people's feelings, especially when they are in the workplace settings. However, in the third attribute, the majority of the respondents, 31.4%, agree that graduates lack the ability to negotiate with their subordinates or colleagues.

As part of the hard skills, graduates must have the ability to negotiate as they will be able to solve conflicts and rise to a fair deal or consensus among their colleagues (Osmičević & Meško, 2020). As for the ability to encourage and motivate others, most respondents (29.4%) remained neutral on this lacking attribute among graduates. The concept of motivating other people differs by context and situation, thus showing that different people would approach this attribute carefully that will carefully accommodate their way. Moving on to the following attribute, 28.4% strongly agree that graduates lack the ability to network, thus making them incapable of professionally socializing with prominent figures or employers that could help them gain employability points. Drawing onto the social capital theory, networking behavior and capabilities help graduates enhance the interpersonal skills that

could help them access either low or high job-search resources (Batistic & Tymon, 2017). Following the sixth attribute, most of the respondents (37.3%) disagree that graduates lack the ability to work in diverse working cultures, which shows that Malaysian graduates can embrace diversity in workplace settings, especially considering Malaysia is a multicultural nation. As for the ability to deal with superiors, most respondents (29.4%) strongly agree that graduates nowadays lack this ability. Proven by a study conducted by the Institute Student of Employers (ISE) (2021), the most worrying factor of career management among graduates is the inability to cope with their job, boss, supervisors, and the people around them. Hence proves the last attribute in this skill that 40.2% of the respondents strongly agree that graduates lack the ability to manage and lead people around them.

Computing Skills								
No.	**Statement**		**1**	**2**	**3**	**4**	**5**	**Median**
1	Computing_Skill : Based on the following dimensions of employability skills, do you agree that most graduates nowadays lack the necessary skills or competencies to enter the labor market? [Computing Skills - The skills of knowledge and understanding of information and communication technology (ICT)]		7.8%	9.8%	6.9%	7.8%	67.8 %	Strongly Agree
2	Which of the following attributes do you think you may lack for the needed computing skills based on employers' expectations of graduates?							
	i.	Level of keyboard competency	16.7 %	27.5 %	14.7 %	28.4 %	12.7 %	Agree
	ii.	Ability to use word processing software	17.6 %	33.3 %	14.7 %	17.6 %	16.7 %	Disagree
	iii.	Ability to use statistical software package	8.8%	23.5 %	20.6 %	25.5 %	21.6 %	Agree
	iv.	Ability to deliver effective presentations using computer software	17.6 %	33.3 %	14.7 %	17.6 %	16.7 %	Disagree
	v.	Ability to use database programs for data management	14.7 %	21.6 %	17.6 %	27.5 %	18.6 %	Agree
	vi.	Ability to use spreadsheets for data analysis	13.7 %	25.5 %	17.6 %	22.5 %	20.6 %	Disagree
	vii.	Ability to search and manage relevant information from various sources	14.7 %	26.5 %	12.7 %	24.5 %	21.6 %	Disagree

Computing Skills							
No.	**Statement**	**1**	**2**	**3**	**4**	**5**	**Median**

Table 11: Itemised Questions for Employability Skills of Graduates with Unemployment in Row Percentage - Computing Skills

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Table 11 above presents the itemised questions for employability skills of graduates with unemployment in the aspect of computing skills which are defined by the ability to understand the information and communication technology (ICT) along with the capabilities of graduates to utilise the computer software and related applications (Fraillon et al., 2019). Based on the first statement indicates that 67.8% of the respondents strongly agree that most graduates nowadays lack the necessary computing skills to enter the labour market. Under this skill, the researcher has proposed seven abilities to assess the computing skills that may be lacking among unemployed graduates based on the employers 'expectations. In terms of the level of keyboard competency, despite the neck-and-neck results, however, 28.4% of the respondents agree that graduates lack the required level of keyboard competency, which this skill is proven to be substantially lacking in most graduates nowadays. The next attribute is the ability to use word processing applications which indicates that 33.3% of the respondents mostly disagree that graduates lack this skill. Furthermore, in the ability to utilise statistical software packages, 25.5% agree that most graduates lack this skill though the statistical software skills seem accrual for graduates to have. As for the ability to deliver effective presentations using computer programs, 33.3% of the 102 respondents disagree that graduates lack this skill, considering that conducting presentations through computer software is presumably easy to use among graduates. In addition, in the fifth attribute, 27.5% of the respondents agree that most graduates nowadays lack the ability to use database programs for data management. As for the ability to utilise the spreadsheet software for data analysis, 22.5% of the respondents disagree that graduates lack this ability, which indicates that most graduates have the basic skills of utilising the spreadsheet program to analyse and modify spreadsheets for basic data analysis. Lastly, 26.5% of the respondents also disagree that graduates lack the ability to browse and manage relevant information from different sources, showing that they know how to conduct basic computer browsing to look for information for their needs.

Enterprise and Entrepreneurial Skills								
No.	**Statement**		**1**	**2**	**3**	**4**	**5**	**Median**
1	Based on the following dimensions of employability skills, do you agree that most graduates nowadays lack the necessary skills or competencies to enter the labor market? [Enterprise and Entrepreneur Skills - The skillls to explore an opportunity and create risk awareness, and be creative and innovative in business/work]		5.9%	2.9%	8.8%	10.8 %	71.6 %	Strongly Agree
2	Which of the following attributes do you think you may lack for the required enterprise and entrepreneurial skills based on employers' expectations of graduates?							
	i.	Ability to explore and identify business opportunities	8.8%	1.0%	13.7 %	40.2 %	36.3 %	Agree
	ii.	Ability to develop a business plan	8.0%	12.0 %	8.0%	32.0 %	40.0 %	Strongly Agree
	iii.	Ability to develop business opportunities	7.0%	6.0%	16.0 %	31.0 %	40.0 %	Strongly Agree
	iv.	Ability to capitalise on business opportunities	6.0%	11.0 %	8.0%	34.0 %	41.0 %	Strongly Agree
	v.	Ability to be self-employed	8.0%	3.0%	13.0 %	41.0 %	35.0 %	Agree

Table 12: Itemised Questions for Employability Skills of Graduates with Unemployment in Row Percentage - Enterprise and Entrepreneurial Skills

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Presented in Table 12 are the itemised questions for employability skills of graduates with unemployment in the aspect of the enterprise and entrepreneurial skills, which are defined as the skills to identify opportunities and create risk awareness, as well as the skills to be creative and innovative in businesses or work (Tarver, 2021). Based on the first statement, 71.6% of the respondents strongly agree that most graduates nowadays lack the necessary skills or competencies for enterprise and entrepreneurship to enter the labour market. This is evident from a study conducted by Towers et al. (2020) which stated that while university-industrial partnerships are critical to promoting graduate

employability and entrepreneurship, the higher education sector lacks an integrated approach to cultivating entrepreneurship education and entrepreneurial capacity-building with entrepreneurial skill and mindset among graduates. Under this skill, the researcher has proposed five abilities to assess the enterprise and entrepreneurial attributes lacking among unemployed graduates based on the employers' expectations. Following the first attribute — The ability to explore and identify business opportunities; 40.2% agree, followed by a portion of 36.3% who strongly agree that graduates lack this attribute. In the second and third attributes, a similar total of respondents (40%) strongly agree that graduates lack the ability to create business plans and develop business opportunities. As for the fourth attribute, 41% strongly agree that graduates also lack the ability to capitalise on business opportunities, hence the inability of these graduates to be self-employed, which is agreed by 41% of the total respondents.

Communication Skills								
No.		**Statement**	**1**	**2**	**3**	**4**	**5**	**Median**
1		Based on the following dimensions of employability skills, do you agree that most graduates nowadays lack the necessary skills or competencies to enter the labor market? [Communication Skills - The skills that people use to communicate effectively with others]	4.9%	6.9%	3.9%	13.7 %	70.6 %	Strongly Agree
2		Which of the following communication skills do you think you may lack based on employers' expectations of graduates?						
	i.	Ability to listen attentively and give appropriate feedback	11.8 %	20.6 %	22.5 %	25.5 %	19.6 %	Agree
	ii.	Ability to negotiate and reach consensus	11.8 %	18.6 %	27.5 %	28.4 %	13.7 %	Agree
	iii.	Ability to write effectively in Bahasa Malaysia	46.1 %	11.8 %	10.8 %	19.6 %	11.8 %	Strongly Disagree
	iv.	Ability to write effectively in English	50.0 %	21.6 %	5.9%	12.7 %	9.8%	Strongly Disagree
	v.	Ability to write effectively in other languages	14.7 %	5.9%	10.8 %	28.4 %	40.2 %	Strongly Agree
	vi.	Ability to speak fluently in Bahasa Malaysia	47.1 %	19.6 %	9.8%	12.7 %	10.8 %	Strongly Disagree

Communication Skills								
No.		**Statement**	**1**	**2**	**3**	**4**	**5**	**Median**
	vii.	Ability to speak fluently in English	47.1 %	19.6 %	9.8%	12.7 %	10.8 %	Strongly Disagree
	viii.	Ability to speak fluently in other languages	13.7 %	8.8%	10.8 %	27.5 %	39.2 %	Strongly Agree
	ix.	Ability to communicate formally and informally with people from different backgrounds	20.6 %	18.6 %	33.3 %	15.7 %	11.8 %	Neutral
	x.	Ability to effectively deliver presentations of a case/project	14.7 %	15.7 %	23.5 %	28.4 %	17.6 %	Agree
	xi.	Ability to express his or her own ideas clearly, effectively and with confidence	16.7 %	11.8 %	22.5 %	36.3 %	12.7 %	Agree

Table 13: Itemised Questions for Employability Skills of Graduates with Unemployment in Row Percentage - Communication Skills

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Presented in Table 13 above are the itemised questions for employability skills of graduates with unemployment in the aspect of communication skills, which are defined as the necessary skills to communicate effectively with people. Based on the first statement, 70.6% of the respondents strongly agree that most graduates nowadays lack the needed communication skills to enter the labour market. Under this skill, the researcher has proposed 11 abilities to assess the graduates' communication skill capabilities based on the employers' expectations. Based on the first attribute, which is the ability to listen attentively and give appropriate feedback, 22.5% of the respondents agree that most graduates lack this ability, even though a similar portion of the respondents (22.5%) remained neutral on this statement. Following the second attribute is the ability to negotiate and arrive at a consensus; 28.4% agree that graduates lack this ability, thus indicating that communication skills are severely crucial for reaching a decision.

Next is the ability to write effectively in Bahasa Malaysia. 46.1% of the respondents strongly disagree that graduates lack this attribute as Bahasa Malaysia is widely used as part of the spoken native language in Malaysia. Similarly to the ability to write effectively in English, 50% of the respondents strongly disagree that graduates lack this attribute as it is known as the second most-used language in

Malaysia after their native language, Bahasa Malaysia. However, as for the ability to write effectively in other languages, 40.2% of the respondents strongly agree that graduates lack this attribute considering that not all graduates in Malaysia have the capabilities to learn more than one or two languages except if it is required for them to take in international schools. Moreover, a similar result of 47.1% of the total respondents strongly disagrees that graduates nowadays lack the ability to speak fluently in Bahasa Malaysia and English. Conversely, 39.2% of the respondents strongly agree that graduates lack the ability to speak fluently in other languages. As for the ability to effectively deliver presentations for cases or projects, 28.4% agree that most graduates lack the communication skills in this attribute. Lastly, 36.3% of the respondents also agree that most graduates nowadays lack the ability to clearly and effectively express their ideas with confidence, indicating that they lack the necessary communication skills in order to communicate effectively in their future workplace settings.

Thinking Skills								
No.	**Statement**		**1**	**2**	**3**	**4**	**5**	**Median**
1	Based on the following dimensions of employability skills, do you agree that most graduates nowadays lack the necessary skills or competencies to enter the labor market? [Thinking Skills - The ability to think critically, creatively, innovatively, and analytically, and the ability to apply the knowledge in different contexts]		6.9%	4.9%	3.9%	7.8%	76.5 %	Strongly Agree
2	Which of the following thinking skills do you think you may lack based on employers' expectations of graduates?							
	i.	Ability to recognise and analyse problems	13.7 %	24.5 %	20.6 %	29.4 %	11.8 %	Agree
	ii.	Ability to explain, analyse and evaluate data and information	17.6 %	33.3 %	17.6 %	18.6 %	12.7 %	Disagree
	iii.	Ability to generate creative ideas	14.7 %	18.6 %	23.5 %	28.4 %	14.7 %	Agree
	iv.	Ability to think critically to write effectively in English	34.3 %	22.5 %	12.7 %	20.6 %	9.8%	Strongly Disagree
	v.	Ability to learn and apply new knowledge skills	15.7 %	17.6 %	30.4 %	24.5 %	11.8 %	Neutral

Thinking Skills								
No.		**Statement**	**1**	**2**	**3**	**4**	**5**	**Median**
	vi.	Ability to understand statistical and numerical data	18.6 %	24.5 %	11.8 %	31.4 %	13.7 %	Agree
	vii.	Ability to think outside of the box	12.7 %	17.6 %	22.5 %	31.4 %	15.7 %	Agree
	viii.	Ability to make logical conclusions by analysing relevant data	14.7 %	15.7 %	22.5 %	37.3 %	9.8%	Agree

Table 14: Itemised Questions for Employability Skills of Graduates with Unemployment in Row Percentage - Thinking Skills

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Table 14 above shows the itemised questions for employability skills of graduates in the aspect of thinking skills, which are explained as the ability of graduates to think critically, innovatively, and analytically, as well as the graduates' competency to apply the knowledge in various contexts (Hamid et al., 2014). According to the first statement, 76.5% of the respondents strongly agree that most graduates lack the necessary thinking skills to enter the labour market. Under the thinking skill, the researcher has proposed eight (8) attributes to assess the graduates' thinking competencies based on the employers' expectations. For the first statement, 29.4% agree of the respondents agree that graduates lack the ability to identify and analyse problems. In the second attribute, 33.3% disagree that most graduates lack the ability to explain, analyse, and measure data and information. Following the third attribute, 28.4% agree that most graduates are deficient in this attribute, indicating that they are incapable of cultivating new creative ideas to enhance their thinking skills. Moreover, 34.3% of the 102 respondents strongly disagree that most graduates lack the ability to think critically to effectively write in English, considering that English is the second most-spoken language in Malaysia. As for the ability to learn and implement new knowledge skills, the majority of the respondents are neutral (30.4%) that graduates lack this attribute. As for the sixth attribute which is the ability to comprehend numerical and statistical data, 31.4% of the respondents agree that most graduates nowadays are insufficient in this skill. Even so, 31.4% of them also agree that graduates lack the ability to think outside the box, hence affecting their ability to produce creative and innovative ideas for work projects or cases. Lastly, as for the ability to make logical conclusions by analysing relevant data, 37.3% of the respondents agree that graduates nowadays are insufficient to assess and evaluate decisions based on their statistical abilities.

Management Skills								
No.	**Statement**		**1**	**2**	**3**	**4**	**5**	**Median**
1	Based on the following dimensions of employability skills, do you agree that most graduates nowadays lack the necessary skills or competencies to enter the labor market? [Management Skills - The skills to effectively lead, supervise, and manage projects/people]		6.9%	5.9%	7.8%	7.8%	71.6 %	Strongly Agree
2	Which of the following management skills do you think you may lack based on employers' expectations of graduates?							
	i.	Ability to lead a project	10.8 %	25.5 %	17.6 %	28.4 %	17.6 %	Agree
	ii.	Ability to supervise group members	11.8 %	29.4 %	23.5 %	24.5 %	10.8 %	Disagree
	iii.	Ability to optimise the use of resources	12.7 %	23.5 %	22.5 %	25.5 %	15.7 %	Agree
	iv.	Ability to have a good time management	12.7 %	11.8 %	25.5 %	30.4 %	19.6 %	Agree
	v.	Ability to plan, coordinate and organise a project	15.7 %	20.6 %	25.5 %	20.6 %	17.6 %	Neutral
	vi.	Ability to monitor group members to achieve targets	14.7 %	21.6 %	19.6 %	29.4 %	14.7 %	Agree
	vii.	Ability to plan and implement an action plan	10.8 %	19.6 %	27.5 %	28.4 %	13.7 %	Agree
	viii.	Ability to work under pressure	10.8 %	14.7 %	24.5 %	30.4 %	19.6 %	Agree
	ix.	Ability to work independently	14.7 %	20.6 %	19.6 %	25.5 %	19.6 %	Agree
	x.	Ability to deliver expected results	10.8 %	13.7 %	30.4 %	27.5 %	17.6 %	Neutral

Table 15: Itemised Questions for Employability Skills of Graduates with Unemployment in Row Percentage - Management Skills

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Table 15 above shows the itemized questions for employability skills of graduates in the aspect of management skills, which are defined as the skills required for graduates to efficiently lead, supervise, and manage people or projects (Hamid et al., 2014). Under this skill, the researcher has proposed ten attributes to assess this skill among unemployed graduates based on the employers' expectations. The first attribute is the ability to lead a project. In this attribute, 28.4% of the respondents agree that most graduates nowadays are deficient in this ability, resulting in them being incapable of cultivating the necessary management and leadership skills in their future workplace settings. The second attribute is the ability to supervise group members; 29.4% of the respondents disagree that most graduates nowadays lack this ability.

Further, 25.5% of the 102 respondents agree that graduates lack the ability to optimize the utilization of resources which is sought to be prominent in the workplace by employers (Pretorius, 2001). Moving on to the fourth attribute is the ability o have good time management; 30.4% of the respondents are found to agree that graduates lack this criterion as time management skills are essential for them to have nowadays, especially in today's business environment, to ensure they are employable in the workforce (Kenayathulla et al., 2019). Furthermore, 25.5% of the respondents are neutral on the perception that graduates lack the ability to plan, coordinate, and organize projects. As for the ability to monitor group members to achieve targets, 29.4% of the 102 respondents agree that most graduates lack this ability. Furthermore, 27.5% of those 102 respondents also agree that graduates lack the ability to plan and implement an action plan which is considered to be crucial for graduates to have in generating ideas and turn these ideas into action plans (Kenayathulla et al., 2019). As for the eighth attribute, 30.4% of the respondents agree that graduates nowadays are incapable of the ability to work under pressure, followed by 25.5% who agree that these graduates lack the ability to work independently. Lastly, 30.4% of the respondents remained neutral on the perception of graduates' ability to deliver expected results.

Teamwork and Collaborative Skills								
No.	**Statement**		**1**	**2**	**3**	**4**	**5**	**Median**
1	Based on the following dimensions of employability skills, do you agree that most graduates nowadays lack the necessary skills or competencies to enter the labor market? [Teamwork and Collaborative Skills - The ability to work well with others during conversations, projcts, meetings, and other collaborations]		4.9%	9.8%	6.9%	6.9%	71.6 %	Strongly Agree
2	Which of the following teamwork and collaborative skills do you think you may lack based on employers' expectations of graduates?							
	i.	Ability to build good relations and have good interaction with other people, and work with them effectively to achieve a common goal	47.1 %	18.6 %	11.8 %	14.7 %	7.8%	Strongly Disagree
	ii.	Ability to understand and switch between roles of a team leader and a team member	43.1 %	19.6 %	9.8%	17.6 %	9.8%	Strongly Disagree
	iii.	Ability to recognize and respect attitudes, behaviours, and beliefs of other people	46.1 %	22.5 %	8.8%	16.7 %	5.9%	Strongly Disagree
	iv.	Ability to contribute to the planning and coordination of group work	42.2 %	19.6 %	12.7 %	16.7 %	8.8%	Strongly Disagree

Table 16: Itemised Questions for Employability Skills of Graduates with Unemployment in Row Percentage - Teamwork and Collaborative Skills

Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

The presented table 16 above shows the itemized questions for employability skills of graduates in the aspect of teamwork and collaborative skills, which are the ability of graduates to work alongside others during conversations, meetings, projects, and other collaborative work Islam et al. (2013). Under this skill, the researcher has presented four attributes to assess the graduates' teamwork and collaborative capabilities based on the employers' perceptions. The first attribute is cultivating good relationships, having good interactions with other people, and working with them effectively to achieve the desired rules; 47.1% of the respondents strongly disagree that graduates lack this ability. 43.1% of the respondents also strongly disagree that most graduates lack the ability to understand and

switch between the roles of a group leader and a team member. The similar median results of 46.1% of respondents disagree that graduates lack the ability to acknowledge and respect other group members' attitudes, behaviors, and beliefs; as well as 42.2% strongly disagree that most graduates lack the ability to contribute to the planning and coordination of collaborative work. Overall, an average total of 44.6% of the respondents strongly disagree that most graduates lack teamwork and collaborative skills.

4.3 Goodness of Data

Singh (2014) stated that when it comes to qualitative research, validity and reliability increase research transparency while reducing any chance of biased opinions. Even for all secondary data, it is viable for researchers to conduct a detailed analysis of reliability and validity, including an appraisal of statistical methods to collect data Saunders et al., (2009). Hence the use of modern research practices to collect data, such as questionnaire surveys, interviews, observation ratings, etc., are regularly used to enhance research validity and reliability as well as research accuracies (Tavakol & Dennick, 2011). As such, in this study, the goodness of data in terms of unidimensionality, reliability, and validity has been done using the SPSS and Microsoft Excel statistics tool elements.

4.3.1 Unidimensionality

When evaluating a latent composite scale (construct) derived from subjective item responses, such as a Likert scale, the underlying assumption is that the construct is primarily unidimensional. According to Utvær et al. (2014), as part of an essential component of construct validity, evaluating the unidimensionality of the observed data on factor loadings are the items that researchers seek to measure only one dimension. In comparison to unidimensionality, dimensionality, in general, pertains to the structure of a specific dominant phenomenon or latent variable (Pett et al., 2003). Unidimensionality, however, is defined if there is a variable, often known as a latent variable, in a set of items as it may not be observed, hence 'illustrating' the correlations observed between those sets of items (Bruno, 2006). Ziegler and Hagemann (2015) further explained that "*An item is considered unidimensional if there are significant differences within the item variance that are attributable to only one variance source, which is one latent variable."*

Moreover, various statistical methods assess the dimensionality of a set of observed variables, mainly construct factor loading analysis or multidimensional scaling (Ziegler & Hagemann, 2015). When a composite scale score is computed from item responses, it is generally assumed that the scale is predominantly unidimensional. Further, there is no standardized set of rules or techniques that are

universally accepted to measure the dimensionality of item response data to determine the number of factors to keep (Slocum-Gori & Zumbo, 2010). Typically, construct factor analysis is used in conjunction with the *Eigenvalues-greater-than-one* rule, the ratio of *first-to-second Eigenvalues*, parallel analysis, root-mean-square-error-of-approximation, or hypothesis testing approaches include chi-square tests from Maximum Likelihood procedure or Generalized Least Squares estimation method (Hagell, 2014). Regarding the acceptable factor loading scale, Awang (2014) stated that for newly developed items, the factor loading for each item should exceed 0.5. For established sets of items, however, the factor loading for each item has to be 0.6 or more.

In conjunction with this research, test conditions such as sample size, the extent of communalities, distributions of item responses, the proportion of the total variance explained, the determinant of the correlation matrix of the variables along with the rotated component matrix are extracted to assess the factor loading of each construct. Furthermore, for the extraction method, the researcher has used the Principle Component Analysis (PCA) method which to analyze the relationship between each item's variances individually with the total (both standard and error) variances shared. As for the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (MSA) statistics by Kaiser (1974), it has postulated an acceptable KMO value which is further illustrated in the Table 17 below based on the Kaiser's (1974) Degree of Common Variance criteria as shown below**:**

KMO Value	**Degree of Common Variance**
0.90 to 1.00	Marvellous
0.80 to 0.89	Meritorious
0.70 to 0.79	Middling
0.60 to 0.69	Mediocre
0.50 to 0.59	Miserable
0.00 to 0.49	Don't Factor

Table 17: KMO value based on Kaiser's (1974)
Degree of Common Variance

Accordingly, Table 18 below summarises the factor loading scores for each construct tested in this research. The results have shown that construct; low wages, job mismatch, quality of Higher Education Systems in Malaysia, and employability skills of graduates have factor loading scores exceeding 0.50 value, thus proving them to have achieved unidimensionality.

Table 18: Construct Factor Loading Summary

Construct	Item	Factor Loading Score	Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy
Low Wages	LW1	0.821	0.766
	LW2	0.856	
	LW3	0.693	
	LW4	0.799	
	LW5	0.771	
	LW6	0.898	
	LW7	0.755	
	LW8	0.619	
	LW9	0.819	
	LW10	0.815	
Job Mismatch	JM1	0.721	0.774
	JM2	0.735	
	JM3	0.642	
	JM4	0.883	
	JM5	0.816	
	JM6	0.790	
	JM7	0.848	
	JM8	0.780	
	JM9	0.903	
	JM10	0.874	

Table 18: Construct Factor Loading Summary

	JM11	0.953	
	JM12	0.910	
Quality of Higher Education Systems in Malaysia	Q1	0.804	0.786
	Q2	0.881	
	Q3	0.866	
	Q4	0.918	
	Q5	0.709	
	Q6	0.795	
	Q7	0.874	
	Q8	0.853	
	Q9	0.814	
	Q10	0.898	
	Q11	0.904	
	Q12	0.925	
	Q13	0.903	
	Q14	0.944	
	Q15	0.943	
	Q16	0.890	
	Q17	0.652	
Employability Skills of Graduates	**Interpersonal Skills**		0.873
	1. Interpersonal1	0.855	
	2. Interpersonal2	0.838	
	3. Interpersonal3	0.901	
	4. Interpersonal4	0.799	
	5. Interpersonal5	0.826	
	6. Interpersonal6	0.837	
	7. Interpersonal7	0.794	

Table 18: Construct Factor Loading Summary

	8. Interpersonal8	0.838	
	Computing Skills		0.877
	1. Computing1	0.845	
	2. Computing2	0.873	
	3. Computing3	0.932	
	4. Computing4	0.807	
	5. Computing5	0.864	
	6. Computing6	0.738	
	7. Computing7	0.895	
	Enterprise & Entrepreneurial Skills		0.799
	1. Ent1	0.815	
	2. Ent2	0.893	
	3. Ent3	0.627	
	4. Ent4	0.851	
	5. Ent5	0.781	
	Communication Skills		0.806
	1. Com1	0.841	
	2. Com2	0.855	
	3. Com3	0.910	
	4. Com4	0.780	
	5. Com5	0.952	
	6. Com6	0.721	
	7. Com7	0.910	
	8. Com8	0.933	
	9. Com9	0.633	
	10. Com10	0.746	
	11. Com11	0.839	

Table 18: Construct Factor Loading Summary

	Thinking Skills		
	1. Thinking1	0.805	
	2. Thinking2	0.791	
	3. Thinking3	0.890	
	4. Thinking4	0.910	0.877
	5. Thinking5	0.848	
	6. Thinking6	0.879	
	7. Thinking7	0.868	
	8. Thinking8	0.736	
	Management Skills		
	1. Mgm1	0.837	
	2. Mgm2	0.861	
	3. Mgm3	0.862	
	4. Mgm4	0.841	
	5. Mgm5	0.696	0.867
	6. Mgm6	0.800	
	7. Mgm7	0.789	
	8. Mgm8	0.825	
	9. Mgm9	0.834	
	10. Mgm10	0.713	
	Teamwork & Collaborative Skills		
	1. Teamwork1	0.787	
	2. Teamwork2	0.909	0.792
	3. Teamwork3	0.805	
	4. Teamwork4	0.772	

4.3.2 Reliability

In essence, reliability refers to how a test or measuring procedure produces the same outcomes over repetitive trials. It goes without saying that when a phenomenon is measured, the likelihood of a certain amount of chance error is imminent. In any scientific research, the goal of error-free measurements, while this may seem desirable, is not easy to be achieved. Stanley (1971) stated, "*The possibilities of chance error, be it big or small, is always present in some forms. A set of two measurements of the same features will never be identical although taken from similar individuals".* To some extent, the foreseeable unreliability is always present, given that repeated measurements are not entirely identical to one another.

Despite this, these repeated measurements are prone to be consistent from one measurement to another, hence defined as *reliability.* Ideally, the higher the consistency of these repeated measurements of the same phenomenon, the higher the reliability of the measuring procedures (Carmines & Zeller, 1979). Accordingly, in research studies, reliability tests are often measured using Cronbach's Alpha, which in this research, the reliability test has been conducted using the SPSS statistics application. In its simplest definition, Cronbach's Alpha is a statistical analysis that measures the degree of internal consistency among items on a scale (Bonett & Wright, 2014). It is also referred to as a measure of generalizing coefficients that Kuder and Richardson introduced (1937) to measure the reliability of constructs comprised of clustered scored items that score either one or zero, depending on whether the respondents of the painstaking research are complying with the specific characteristics or objectives of the study.

Furthermore, in research by Taber (2017), the Cronbach's Alpha reliability test can be inferred as the expected correlation between a test and a hypothetical alternate form. In simpler words, only if the items are equivalent is it equal to the reliability (Novick and Lewis, 1967). For most universally used scales, Carmines and Zeller (1979) stated that the reliability test values should not fall below 0.80 as random measurement errors are perceived to have a minimal effect at this level. As for its alpha coefficient, generally, Nunnally and Bernstein (1994) believed that a level of 0.70 or higher is considered widely acceptable, often indicated as '*satisfactory'* or '*having only modest reliability.'* As such, when the number of constructs increases, the internal consistency of Cronbach's Alpha also increases (Mat Nawi et al., 2020).

Accordingly, Table 19 below reports the construct results using Cronbach's Alpha coefficients. In this study, the Cronbach's alpha score for the constructs tested averages 0.922, showing that the constructs are within an acceptable degree of reliability. The researcher has also included the

'Corrected item-total Correlation' column that reveals the measure of each item's relative significance in the total reliability by showing the relationship between the individual item responses and the overall score on the questionnaire. With the ideal score being above 0.3, the results have shown that each item of the constructs in this study has a positive relationship with the overall Cronbach's alpha score, hence proving them to have acceptable reliability of significance.

Table 19: Construct Cronbach's Alpha Coefficients

Construct	Question (Item) No.	Corrected Item-Total Correlation	Cronbach's Alpha
Low wages	LW1	0.474	0.900
	LW2	0.807	
	LW3	0.654	
	LW4	0.863	
	LW5	0.840	
	LW6	0.767	
	LW7	0.660	
	LW8	0.612	
	LW9	0.591	
	LW10	0.361	
Job Mismatch	JM1	0.772	0.950
	JM2	0.804	
	JM3	0.754	
	JM4	0.703	
	JM5	0.886	
	JM6	0.760	
	JM7	0.891	
	JM8	0.832	
	JM9	0.869	
	JM10	0.890	

Table 19: Construct Cronbach's Alpha Coefficients

	JM11	0.430	
	JM12	0.653	
Quality of Higher Education Systems in Malaysia	Q1	0.643	0.970
	Q2	0.472	
	Q3	0.888	
	Q4	0.890	
	Q5	0.795	
	Q6	0.909	
	Q7	0.866	
	Q8	0.844	
	Q9	0.897	
	Q10	0.870	
	Q11	0.912	
	Q12	0.916	
	Q13	0.904	
	Q14	0.885	
	Q15	0.646	
	Q16	0.753	
	Q17	0.701	
Employability Skills of Graduates			
Interpersonal Skills	1. Interpersonal1	0.692	0.904
	2. Interpersonal2	0.709	
	3. Interpersonal3	0.559	
	4. Interpersonal4	0.754	
	5. Interpersonal5	0.715	
	6. Interpersonal6	0.709	
	7. Interpersonal7	0.743	

Table 19: Construct Cronbach's Alpha Coefficients

	8. Interpersonal8	0.683	
Computing Skills	1. Computing1	0.735	0.894
	2. Computing2	0.699	
	3. Computing3	0.543	
	4. Computing4	0.756	
	5. Computing5	0.684	
	6. Computing6	0.802	
	7. Computing7	0.634	
Entrpreneur & Entrepreneurial Skills	1. Ent1	0.786	0.940
	2. Ent2	0.863	
	3. Ent3	0.887	
	4. Ent4	0.881	
	5. Ent5	0.779	
Communication Skills	1. Com1	0.706	0.906
	2. Com2	0.673	
	3. Com3	0.626	
	4. Com4	0.785	
	5. Com5	0.406	
	6. Com6	0.652	
	7. Com7	0.702	
	8. Com8	0.459	
	9. Com9	0.779	
	10. Com10	0.746	
	11. Com11	0.646	
Thinking Skills	1. Thinking1	0.761	0.906
	2. Thinking2	0.771	
	3. Thinking3	0.647	

Table 19: Construct Cronbach's Alpha Coefficients

	4. Thinking4	0.609	
	5. Thinking5	0.706	
	6. Thinking6	0.652	
	7. Thinking7	0.683	
	8. Thinking8	0.778	
Management Skills	1. Mgm1	0.689	0.928
	2. Mgm2	0.702	
	3. Mgm3	0.680	
	4. Mgm4	0.682	
	5. Mgm5	0.803	
	6. Mgm6	0.718	
	7. Mgm7	0.749	
	8. Mgm8	0.670	
	9. Mgm9	0.724	
	10. Mgm10	0.803	
Teamwork and Collaborative Skills	1. Teamwork1	0.844	0.917
	2. Teamwork2	0.708	
	3. Teamwork3	0.837	
	4. Teamwork4	0.854	

4.3.3 Validity

Even so, reliability alone is not sufficient for a measure to accurately represent an abstract concept, thus the validity test. According to Carmines and Zeller (1979), "*In a broad sense, any measurement instrument is considered valid if it is able to perform the intended function as it was designed. Therefore, an indicator of an abstract concept is considered valid in the sense that it measures what it purports to measure."* Further, there are three types of validity: criterion-related validity; content validity; and construct validity. According to Joppe (2000), the validity of quantitative research specifies whether the research accurately measures what it is supposed to measure. The validity of a

research scale ultimately gives the researcher an insight into how accurate their research results are in correspondence to their research objectives (Taherdoost, 2016).

Essentially, criterion-related validity "*is in question when the objective is to use an instrument to approximate some important form of behavior that is external to the measuring instrument, the latter being denoted as the criterion*" (Cronbach, 1951). In layman's terms, the degree of criterion-related validity is determined by the degree of relevance between the test and the research criterion. Further, criterion-related validity is technically categorized into concurrent validity and predictive validity. According to Lin and Yao (2014), concurrent validity is determined by correlating a measure and a criterion at the same time when the criterion exists in the present. On the contrary, predictive validity relates to a future criterion that correlates with the same measure (Frey, 2018).

Meanwhile, content validity is determined by how an empirical measurement reflects a specific content domain. However, given its limited practicality, content validity is seen as an imprecise standard to assess the validity of quantitative research measurements (Ruland et al., 2007). This is similar to criterion-related validity, which also has limited generalized applicability in social sciences empirical studies, as in most cases, no criteria against which the measure can be reasonably assessed exists (Utvær & Haugan, 2016).

Compared to criterion-related validity and content validity, it works differently for construct validity as it has broad advantages for its generalized applicability in social sciences empirical studies (Lin and Yao, 2014). The researcher can evaluate the construct validity if placed in a theoretical context. In particular, if the measure's performance is consistent with theoretically derived expectations, it can be derived that the measure has construct validity. However, suppose the measure's performance shows inconsistencies from its theoretically derived expectations. In that case, therefore, it is basically presumed that the empirical measure does not accurately represent the theoretical concept it is supposed to represent. Instead, it is inferred that the measure does not have construct validity for that concept (Sechrest, 2005). Further, construct validity is divided into two subcategories: convergent validity and discriminant validity, by which these two measures are complementary to work together. Convergent validity seeks to establish that specific measures that are theoretically assumed to be related to form the same construct are related to one another; therefore, it seeks to demonstrate linkages among similar measures (Carlson & Herdman, 2010). Discriminant validity, however, seeks to show that two measures that are not theoretically supposed to be related are, in fact, unrelated; therefore, it seeks to discriminate between different measures (Henseler et al., 2014). Henseler et al. (2014) added that the rule for convergent validity is statistically computed by using the Average

Variance Extracted (AVE), which is >0.50, with an average of greater than 0.70 for each construct. The AVE measures the mean squared factor loadings of each indicator associated with the construct (Taherdoost, 2016). Another way to measure convergent validity is by using the Composite Reliability metric, which measures the internal consistency of latent variables and reliability (Bacon et al., 1995). The Composite Reliability and Average Variance Extracted are computed based on the formula below:

Average Varience Extracted (AVE)	AVE= ∑ Ƙ2 / n	Ƙ = factor loading of every item ; n = Number of items in a model
Composite Reliability	CR = (ΣƘ)2 / [(ΣƘ)2 + (Σ1-Ƙ2)]	

In the case of this study, Table 20 below presents the output summary of the Composite Reliability and Average Variance Extracted (AVE) using the postulated formula in Table # above. Based on the results shown, it has been revealed that a few constructs do not fulfil the convergent validity criterion. While the construct; low wages, job mismatch, and quality of Higher Education Systems in Malaysia, only the construct of employability skills of graduates do not meet the AVE criteria of >0.50, which is only 0.420 cumulatively.

Table 20: Construct Composite Reliability (CR) and Average Variance Extracted (AVE)

Construct	Item	Factor Loading	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Low Wages	LW1	0.821	0.766	0.4788	0.6035
	LW2	0.856			
	LW3	0.693			
	LW4	0.799			
	LW5	0.771			

Table 20: Construct Composite Reliability (CR) and Average Variance Extracted (AVE)

Construct	Item	Factor Loading	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
	LW6	0.898			
	LW7	0.755			
	LW8	0.619			
	LW9	0.819			
	LW10	0.815			
Job Mismatch	JM1	0.721	0.774	0.9499	0.9522
	JM2	0.735			
	JM3	0.642			
	JM4	0.883			
	JM5	0.816			
	JM6	0.790			
	JM7	0.848			
	JM8	0.780			
	JM9	0.903			
	JM10	0.874			
	JM11	0.953			
	JM12	0.910			
Quality of Higher Education Systems in Malaysia	Q1	0.804	0.786	1.333	2.082
	Q2	0.881			
	Q3	0.866			
	Q4	0.918			
	Q5	0.709			

Table 20: Construct Composite Reliability (CR) and Average Variance Extracted (AVE)

Construct	Item	Factor Loading	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
	Q6	0.795			
	Q7	0.874			
	Q8	0.853			
	Q9	0.814			
	Q10	0.898			
	Q11	0.904			
	Q12	0.925			
	Q13	0.903			
	Q14	0.944			
	Q15	0.943			
	Q16	0.890			
	Q17	0.652			
Employability Skills of Graduates	**Interpersonal Skills**		0.873	0.2557	0.439
	1. Interpersonal1	0.855			
	2. Interpersonal2	0.838			
	3. Interpersonal3	0.901			
	4. Interpersonal4	0.799			
	5. Interpersonal5	0.826			
	6. Interpersonal6	0.837			
	7. Interpersonal7	0.794			
	8. Interpersonal8	0.838			
	Computing Skills		0.877	0.1566	0.348
	1. Computing1	0.845			

Table 20: Construct Composite Reliability (CR) and Average Variance Extracted (AVE)

Construct	Item	Factor Loading	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
	2. Computing2	0.873			
	3. Computing3	0.932			
	4. Computing4	0.807			
	5. Computing5	0.864			
	6. Computing6	0.738			
	7. Computing7	0.895			
	Enterprise & Entrepreneurial Skills				
	1. Ent1	0.815			
	2. Ent2	0.893	0.799	0.0273	0.154
	3. Ent3	0.627			
	4. Ent4	0.851			
	5. Ent5	0.781			
	Communication Skills				
	1. Com1	0.841			
	2. Com2	0.855			
	3. Com3	0.910			
	4. Com4	0.780	0.806	0.7822	0.815
	5. Com5	0.952			
	6. Com6	0.721			
	7. Com7	0.910			
	8. Com8	0.933			
	9. Com9	0.633			

Table 20: Construct Composite Reliability (CR) and Average Variance Extracted (AVE)

Construct	Item	Factor Loading	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
	10. Com10	0.746			
	11. Com11	0.839			
	Thinking Skills				
	1. Thinking1	0.805			
	2. Thinking2	0.791			
	3. Thinking3	0.890			
	4. Thinking4	0.910	0.877	0.2618	0.444
	5. Thinking5	0.848			
	6. Thinking6	0.879			
	7. Thinking7	0.868			
	8. Thinking8	0.736			
	Management Skills				
	1. Mgm1	0.837			
	2. Mgm2	0.861			
	3. Mgm3	0.862			
	4. Mgm4	0.841			
	5. Mgm5	0.696	0.867	0.5278	0.637
	6. Mgm6	0.800			
	7. Mgm7	0.789			
	8. Mgm8	0.825			
	9. Mgm9	0.834			
	10. Mgm10	0.713			

Table 20: Construct Composite Reliability (CR) and Average Variance Extracted (AVE)

Construct	Item	Factor Loading	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
	Teamwork & Collaborative Skills				
	1. Teamwork1	0.787			
	2. Teamwork2	0.909			
	3. Teamwork3	0.805	0.792		0.105
	4. Teamwork4	0.772		0.0122	

4.4 Multiple Linear Regression Analysis

This study has also utilised the multiple linear regression analysis through the SPSS software to predict the variance between independent and dependent variables. According to Sekaran & Bougie (2016), the multiple linear regression analysis is part of the multivariate statistical technique which is often used in quantitative research studies. In addition, the application of multiple linear regression analysis allows researchers to objectively evaluate and assess the degree of relevance and the characteristics of the relationship between the independent variables and the dependent variable, which is indicated using regression coefficients to justify the relative importance of each independent variable against the dependent variable (Uyanık & Güler, 2013). In research by Casson and Farmer (2014), researchers must check a few underlying assumptions before conducting and interpreting the multiple linear regression analysis while ensuring their analysis is valid and reliable. These assumptions are as follows;

1. There is a linear relationship between the independent variable(s) and the dependent variable.
2. There is no evident multicollinearity in the researcher's data.
3. The values of the residuals are independent. The researcher can further test this assumption by using the Durbin-Watson statistic.
4. The residuals have a constant variance.
5. Any biased or influential cases do not influence the researcher's model.

Essentially, other than meeting the assumptions mentioned above, the ultimate goal for the regression analysis is to know if two constructs are correlated; only then it will allow researchers to estimate the score of other constructs. The stronger the correlation between variables, the closer the scores will fall to the regression line, thus the more accurate the estimation will be (Uyanık & Güler, 2013). Accordingly, the regression analysis in this study is assessed based on four independent variables; (1) low wages, (2) job mismatch, (3) quality of Higher Education Systems in Malaysia, and (4) employability skills of graduates, to the dependent variable, which is unemployment among graduates in Malaysia. The degree of correlation of these variables is based on the research question for this study which is: Can the researcher explain the outcome variable, unemployment among fresh graduates in Malaysia, with the established independent variables; (1) low wages, (2) job mismatch, (3) quality of Higher Education Systems in Malaysia, and (4) employability skills of graduates?

4.4.1 Determining how well the model fits

Presented in Table 21 below is the model summary which is extracted from the multiple linear regression analysis outputs by using the SPSS software. The model summary provides the output of R-value, R Square value, Adjusted R Square, and the standard error of the estimate, which determines how well the model fits the data.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.538[a]	.290	.212	.441

a. Predictors: (Constant), SUM_Teamwork_Skill, SUM_LW, SUM_Ent_Skill, SUM_Interpersonal_Skill, SUM_Quality, SUM_Computing_Skill, SUM_Com_Skill, SUM_JM, SUM_Mgm_Skill, SUM_Thinking_Skill

Table 21: Model summary

According to Dakal (2019)**,** the 'R' column represents the R-value, indicating the multiple correlation coefficient between the observed value and the predicted value of the dependent variable. In this study, the R-value is 0.538, indicating that there is a 53.8% correlation between the constructs of low wages, job mismatch, quality of Higher Education Systems in Malaysia, and the employability skills of graduates, to the unemployment of graduates in Malaysia. Furthermore, the 'R Square' column,

also referred to as the coefficient of determination, is the proportion of variance in the dependent variable that can be explained by the independent variables (Dakal, 2019). Thus, the R-Square value in this study is 0.290, which explains that 29.0% of the overall variance of the dependent variable (unemployment among graduates in Malaysia) is justified by the variability of the independent variables (low wages, job mismatch, quality of Higher Education Systems in Malaysia, and the employability skills of graduates). The remaining 71.0% variability could be accounted of other factors than the predictors included in this study's model. As for the 'Adjusted R Square' column, it is calculated using the number of variables in the model with the number of participants (observations) on which the model is based on. The Adjusted R Square value is also inferred as the most useful indicator to measure the success of the model and the value of Adjusted R Square will always be lower than or equal to the R Square value. In this study, the Adjusted R Square value is 0.212, which explains the 21.2 % variation is determined by the variables that are to be kept in the model.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.212	10	.721	3.716	.000[b]
	Residual	17.661	91	.194		
	Total	24.873	101			

a. Dependent Variable: DV : Are you presently employed?

b. Predictors: (Constant), SUM_Teamwork_Skill, SUM_LW, SUM_Ent_Skill, SUM_Interpersonal_Skill, SUM_Quality, SUM_Computing_Skill, SUM_Com_Skill, SUM_JM, SUM_Mgm_Skill, SUM_Thinking_Skill

Table 22: ANOVA

4.4.2 Statistical significance of the model

Presented in Table 22 above is the F-ratio in the ANOVA test, which indicates whether the overall regression model is statistically significant or, in other words, showing a good fit for the data (Dakal, 2019). In this study, the ANOVA test has revealed that the independent variables are statistically significant to the dependent variable, *F (10, 91) = 3.716, p-value (Sig.) (.000) < .05*, indicating that the regression model in this study has shown a good fit of the data. To further explain, with an *F-value (3.716)* and a p-value of *(0.000 < 0.05)*, it can be deduced that the independent variables of this study; *Low Wages, Job Mismatch, Quality of Higher Education Systems in Malaysia, and the*

Employability Skills of Graduates; are statistically significant predictors to the dependent variable of unemployment among graduates in Malaysia.

4.4.3 Statistical significance of the independent variables

Presented in Table 23 below relates to the statistical significance of each of the independent variables tests are conducted, whether unstandardized or standardized coefficients are equal to 0 (zero) in the population (i.e. for each coefficient, H0: = 0 versus Ha: ≠ 0). If the p-value is <.05, the coefficients are concluded to be statistically significant as compared to 0. In quantitative research analysis, these tests are considered useful to determine whether each explanatory variable in the model is significant, given that other items are already present.

Therefore, referring to the t-value and the corresponding p-value (*Sig.*) columns, in this study, the outcome of the tests has shown mixed results for coefficients that have p-value < (.05). For the coefficient of *Low Wages (LW),* the p-value (0.127) < 0.05 and the *Job Mismatch (JM)* p-value (0.040) < 0.05 are proven to be significant; however, for the remaining two variables, the tests have shown p-value of > 0.05. For the coefficient *Quality of Higher Education Systems in Malaysia (Quality), the* p-value (0.876) > 0.05 is proven as not significant. This shows that the explanatory variable of *Quality of Higher Education Systems in Malaysia (Quality)* is no longer useful in the model when the other two variables are already present in the model. Meanwhile, as for the coefficient *Employability Skills of Graduates,* the researcher has subdivided this coefficient into seven separate skills to assess its significance in this study. Out of these seven coefficients, only the *Interpersonal Skill,* p (0.040 < 0.05), is found to be significant. This means that only the *Interpersonal Skill* coefficient is critical in the coefficient *Employability Skills of Graduates* to the unemployment among graduates in Malaysia (DV).

Furthermore, Dakal (2019) stated that when all other independent variables are held constant, the unstandardised coefficients signify how much the dependent variable varies with an independent variable. In simpler words, for every one-unit increase in the independent variable, the regression coefficient provides the predicted change in the dependent variable, which in this study is the unemployment among graduates in Malaysia. Referring to Coefficients Table # above, for every one-unit increase in *Low Wages (LW),* it causes a decrease in unemployment among graduates in Malaysia by 0.127. Furthermore, for every one-unit increase in *Job Mismatch (JM),* the unemployment among graduates decreased by 0.020. In the coefficient *Quality of Higher Education Systems in Malaysia (Quality),* for every one-unit increase in this coefficient, it also leads to a decrease in unemployment among graduates in Malaysia by 0.001.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
1	(Constant)	2.981	.395		7.556
	SUM_LW	-.015	.010	-.237	-1.539
	SUM_JM	-.020	.009	-.298	-2.079
	SUM_Quality	-.001	.005	-.020	-.157
	SUM_Interpersonal_Skill	.017	.008	.274	2.087
	SUM_Computing_Skill	-.003	.009	-.047	-.337
	SUM_Ent_Skill	-.019	.012	-.227	-1.590
	SUM_Com_Skill	.002	.007	.046	.314
	SUM_Thinking_Skill	.011	.014	.185	.830
	SUM_Mgm_Skill	-.004	.010	-.083	-.429
	SUM_Teamwork_Skill	.002	.014	.021	.148

Coefficients[a]

Model		Sig.
1	(Constant)	.000
	SUM_LW	.127
	SUM_JM	.040
	SUM_Quality	.876
	SUM_Interpersonal_Skill	.040
	SUM_Computing_Skill	.737
	SUM_Ent_Skill	.115
	SUM_Com_Skill	.755
	SUM_Thinking_Skill	.409
	SUM_Mgm_Skill	.669
	SUM_Teamwork_Skill	.883

a. Dependent Variable: DV : Are you presently employed?

Table 23: Coefficients output

On the contrary, the standardised coefficients, often known as beta weights, measure how much the outcome variable increases (in standard deviations) when the predictor variable increases by one standard deviation, holding all other factors constant (Uyanık & Güler, 2013). The beta weights are useful indicators to rank predictor variables based on their significance in explaining the independent variables irrespective of the sign (Ziglari, 2017). Hence, the beta weights for each construct and their contribution ranking in this study are presented in Table 24 below. The result has shown that the *Employability Skills of Graduates: Interpersonal Skills* coefficient has the highest contributing (0.274) predictor to explain unemployment among graduates in Malaysia (DV).

Table 24: Construct Beta Weight Values

Construct	Beta Weight Value	Ranking Number
Low Wages	-0.237	9
Job Mismatch	-0.298	10
Quality of Higher Education Systems in Malaysia	-0.020	5
Employability Skills of Graduates		
Interpersonal Skills	0.274	1
Computing Skills	-0.047	6
Enterprise and Entrepreneurial Skills	-0.227	8
Communication Skills	0.046	3
Thinking Skills	0.185	2
Management Skills	-0.083	7
Teamwork and Collaborative Skills	0.021	4

4.5 Pearson's Correlation Coefficient

According to Schober et al. (2018), the Pearson's correlation coefficient is the most widely used correlation statistic that measures the degree of linearity between two continuous variables and it is conducted using the SPSS statistical software. The properties of Pearson's correlation are as follows:

1. The coefficient values range from +1 to (-1), where +1 shows a perfect positive relationship, whereas (-1) shows a perfect negative relationship, and 0 means no correlation (see Table #)
2. The value of Pearson's correlation coefficient is in absolute value.
3. The coefficient between two variables has a symmetrical correlation.

Accordingly, using Pearson's correlation, the degree of the observed correlation between variables in this study is illustrated in Figure 9 below.

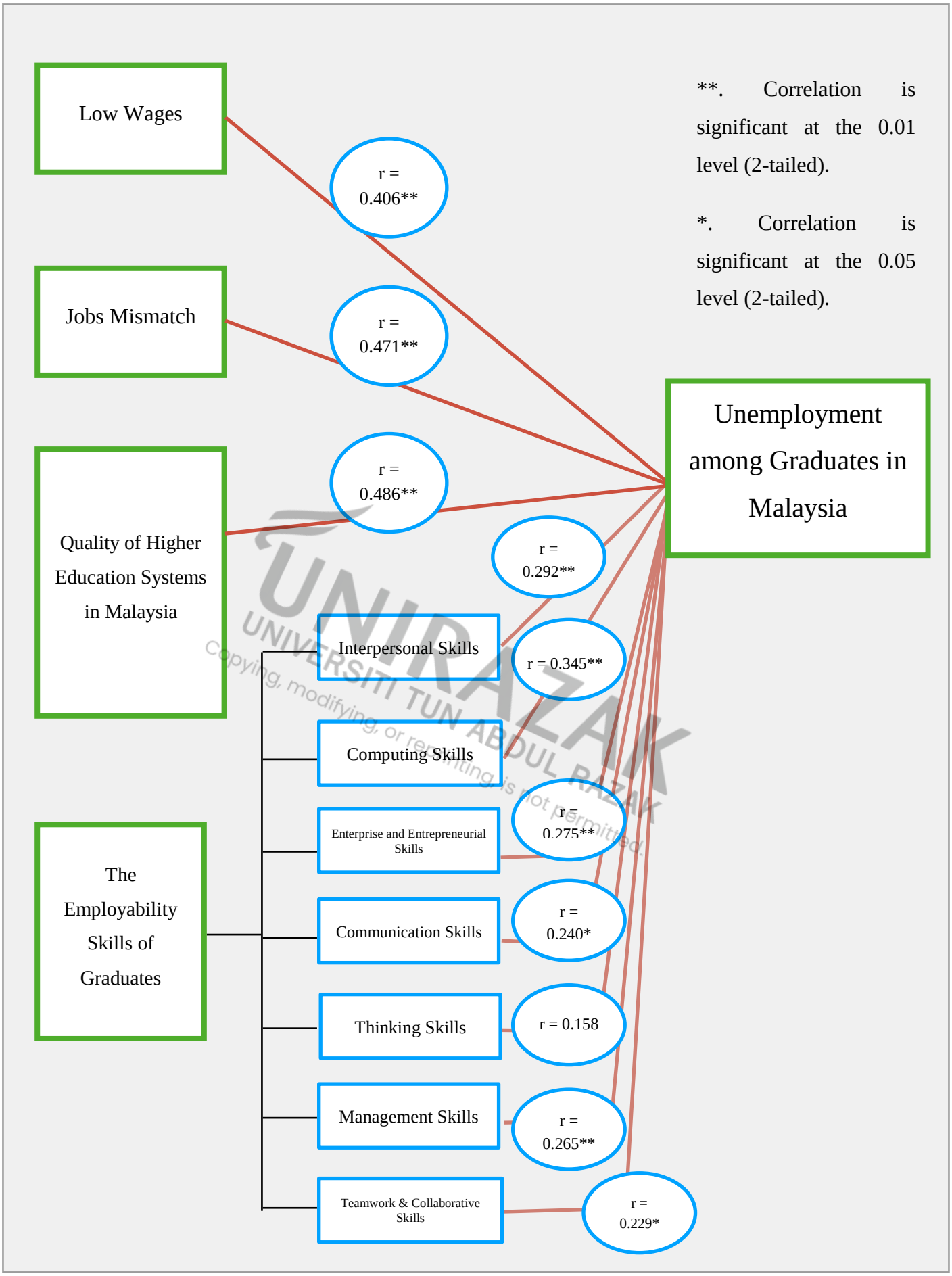

Figure 9: Pearson's Correlation Coefficient Illustration for Factors Influencing Unemployment Among Graduates in Malaysia

4.6 Hypotheses Testing

Hypothesis testing is the ultimate pillar of verifying accurate research findings, whether it is a quantitative or qualitative research study. Researchers cannot heavily rely on complete scientific confidence based on assumptions, especially in the context of social sciences empirical studies. This is due to the complexity of human reasonings, whereby uncertainties and wavering inconsistencies could influence assumptions, hence why researchers must rule out assumptions as plausible explanations to strengthen the findings of their research study (Sekumade, 2017). Accordingly, this research examines the hypotheses by assessing the relationship between low wages, job mismatch, quality of the Higher Education System in Malaysia, and employability skills of graduates.

Table 25: Hypotheses Testing

Hypotheses Statement	$Degree of Association^1$	$Impact^2$	Accepted/Reject
H1: There is a significant relationship between low wages and unemployment among graduates.	Low positive / Moderate correlation	Positive	Accepted
H2: There is a significant relationship between job mismatch and unemployment among graduates.	Low positive / Moderate correlation	Positive	Accepted
H3: There is a significant relationship between the quality of Higher Education systems and unemployment among graduates.	Low positive / Moderate correlation	Negative	Accepted
H4: There is a significant relationship between graduates' employability skills and unemployment among graduates	Low positive / Moderate correlation	Positive	Accepted

Notes:

(1) Degree of association is based on the Pearson's correlation coefficient
(2) Impact is based on the Multiple Linear Regression analysis

4.6.1 Hypothesis 1: Low wages and unemployment among graduates in Malaysia

Judging from the multiple linear regression analysis conducted, the coefficient of *Low Wages (LW)* has been found to be statistically significant, given its p-value ($0.127 < 0.05$), thus showing a positive impact on the unemployment among graduates in Malaysia. Based on the Pearson's correlation coefficient test conducted, the low wages coefficient is also found to be positively correlated with unemployment among graduates in Malaysia, despite the low positive value in the Pearson's degree of correlation ($0.30 < r = 0.406 < 0.50$). Even so, this indicates that low wages are statistically significant in their influence on unemployment among Malaysian graduates. Therefore, it can be deduced that the low wages coefficient is positively correlated to unemployment among graduates in Malaysia, hence proving the proposed hypothesis in this study that there is a significant relationship between low wages and unemployment among graduates in Malaysia. Thus, this hypothesis is accepted.

4.6.2 Hypothesis 2: Job mismatch and unemployment among graduates in Malaysia

By observing the result gained in the multiple linear regression analysis, the coefficient of *Job Mismatch (JM)* has been proven to be statistically significant, provided by its p-value ($0.040 < 0.05$), hence showing a positive impact on the unemployment among graduates in Malaysia. Based on the conducted Pearson's correlation coefficient test, the job mismatch coefficient is also found to be positively correlated with unemployment among graduates in Malaysia, though the degree of association of this coefficient has shown a low positive value ($0.30 < r = 0.471 < 0.5$). Still, this indicates that job mismatch is statistically significant in its impact on unemployment among Malaysian graduates. Therefore, it can be concluded that job mismatch has a positive correlation to unemployment, thus proving the proposed hypothesis in this study that there is a significant relationship between job mismatch and unemployment among graduates in Malaysia. This hypothesis is therefore accepted.

4.6.3 Hypothesis 3: Quality of Higher Education Systems in Malaysia with unemployment among graduates in Malaysia

Based on the result shown in the multiple linear regression analysis, the *Quality of Higher Education Systems in Malaysia (Quality)* coefficient has been found otherwise to be not statistically significant, given its p-value ($0.876 > 0.05$). However, the Pearson's correlation coefficient analysis has indicated that this coefficient shows a moderately positive correlation to the unemployment among graduates in Malaysia, despite the low degree of correlation value of ($0.3 < r = 0.486 < 0.5$). Still, this has indicated that the quality of Higher Education Systems in Malaysia is statistically significant to the unemployment among graduates in Malaysia. Accordingly, the researcher has concluded that the

quality of Higher Education Systems in Malaysia has a significant relationship to graduates' unemployment in Malaysia. Hypothesis 3 is therefore accepted.

4.6.4 Hypothesis 4: Employability Skills of Graduates and unemployment

Under the coefficient of *Employability Skills of Graduates*, the researcher subdivided this variable into seven (7) groups of employability skills which are; *Interpersonal Skills, Computing Skills, Enterprise and Entrepreneurial Skills (Ent), Communication Skills (Com), Thinking Skills (Thinking), Management Skills (Mgm), and Teamwork and Collaborative Skills (Teamwork),* to determine which of those skills have a prominent degree of correlation and significant relationship to the unemployment among graduates in Malaysia. Referring to the results shown in the multiple linear regression analysis, only *Employability Skills of Graduates: Interpersonal Skills* is found to be statistically significant, given its p-value ($0.040 < 0.05$). This also denotes that the interpersonal skill coefficient is deduced to be a critical employability skill that graduates in Malaysia seem to lack, thus affecting their employment marketability after completing their studies. Furthermore, among other employability skills, interpersonal skills have shown the highest value in Pearson's correlation coefficient analysis ($r = 0.345$), indicating that this employability skill is proven significant to the unemployment among graduates in Malaysia. The fourth hypothesis is, therefore, accepted.

4.7 Summary of Chapter 4

This chapter has covered the critical components of data analysis of this research which include the survey response analysis, the goodness of data in terms of unidimensionality, reliability, and validity, the multiple linear regression analysis and Pearson's correlation coefficient analysis through detailed SPSS presentations, and lastly, hypotheses testing. In the survey response analysis section, the researcher has thoroughly evaluated the findings, which it has been gathered from the questionnaire survey that was distributed electronically via Google Forms software to 100 targeted respondents. Further, in the goodness of data section, the researcher has utilised the SPSS software and other statistical tools in Microsoft Excel to assess the unidimensionality, reliability and validity of the data findings in this study. The multiple linear regression analysis has covered the critical parts of this analysis in terms of determining the good fit of the model, the statistical significance of the model, and the statistical significance of the independent variables to the dependent variable in this study. Additionally, Pearson's correlation coefficient matrix was also adopted in this study in order to assess the degree of correlation between variables, thus further strengthening the analysis of the data in this study. Lastly, in the hypotheses testing section, the results have indicated that the only variables, *low wages* and *job mismatch, are* significant and positively correlated to the unemployment among graduates in Malaysia. However, the variables of *quality of Higher Education Systems in Malaysia* and *graduates' employability skills* have a weak correlation to the unemployment among graduates in Malaysia, thus showing insignificance to this study.

CHAPTER 5: CONCLUSIONS

5.1 Introduction

This chapter highlights the overall findings of the variables in this study based on the statistical analysis conducted in the previous chapter. This includes discussing the main research objective of this study, which is to study the factors influencing unemployment among graduates in Malaysia in terms of low wages, job mismatch, the quality of Higher Education Systems in Malaysia, and graduates' employability skills. Various literature resources have been used to support the findings in this study as well as to strengthen the relevance of these variables to the subject matter.

Moreover, prior to investigating the relationship between these variables with unemployment, a preliminary research procedure was done by distributing a questionnaire survey that pertains to this study's research objective. This questionnaire has been administered electronically via Google Forms software and distributed to 100 targeted respondents across Malaysia as the researcher intended to gather enough findings regarding the factors established in this study on its degree of influence on unemployment among graduates in Malaysia, especially since the unprecedented Covid-19 pandemic in the year 2020.

Furthermore, several analyses have also been conducted once the respondents have completed the questionnaire using the *SPSS (Statistical Package for the Social Sciences)* data management and analysis program. These analyses include multiple linear regression analysis, reliability test, factor loading analysis, and Pearson's correlation coefficient analysis. Lastly, the research contributions and implications and research limitations, in general, are discussed in this chapter, followed by conclusions and directions for further research that are related to this study.

5.2 Factors Influencing Unemployment among Graduates in Malaysia

5.2.1 Low Wages and Unemployment

Even before Covid-19 happened, low wages among graduates have been a long-standing, hugely debated issue in Malaysia. With the worsening economic condition, i.e. inflationary pressures in the country, it is becoming more challenging for graduates to get into the workforce and further suppressing the wage level (Vally et al., 2021). During these tough times, workers in low-paying jobs have to choose between accepting underpaid jobs or not having a job at all; thus, there will be no income for them at all due to forceful unemployment. However, if these workers have to accept low-paying jobs, they would face deeper challenges in further bargaining for higher wages because the

starting salary is commonly used to negotiate future salaries (Martin, 2021). The scarring effects of unemployment due to low wages have been long enough to largely affect the employment opportunities for graduates in Malaysia, pushing many of them to be in the underemployment bracket, or other words, working in semi-skilled or low-skilled jobs that are irrelevant to their academic qualifications (Tumin, 2021). As such, this brings back to the findings in this study that have proven the significance of low wages factor to unemployment among graduates in Malaysia. Despite a few evident differences in findings from the analyses conducted, however, the factor of low wages has shown a positive correlation to the unemployment among graduates in Malaysia. Therefore, in relation to the low wage level in this country, it is pertinent for policymakers in Malaysia to realise that the wage policies must be strengthened in order to reduce the unemployment rate in Malaysia. With the rising living costs and prices for commodity goods nowadays, policymakers should recognise that the provision of wages in today's modern society is more than just affording basic necessities; it should also be a living wage that could sustain the lives of those underpaid full-time workers (Chong & Adam Khong, 2018). In deduction, the findings from the analyses conducted for this study have proven that low wages positively correlate to unemployment among graduates in Malaysia.

5.2.2 Job Mismatch and Unemployment

As stated by the International Labour Organization (ILO), job mismatch occurs when there is a gap between the skills required by the employers in a given job and the skills possessed by graduates. Simply put, labour mismatch among graduates occurs due to the unavailability of jobs that match their skills obtained. Correspondingly, the labour market does not provide adequate training and education to check the skills needed (ILO, 2016). Furthermore, according to the study done by Adams et al. (2000), while factors such as education level, lack of experience, inflexibility, and lack of personal skills as the reasons why job mismatch occurs, the attitudes and practices of employers are also contributing to the mismatch unemployment. Job mismatches in Malaysia have been a persistent issue for a while now, portraying as part of the structural unemployment issues among graduates in Malaysia that call out urgent attention by policymakers in the country to rectify this matter. Accordingly, the findings in this study have shown that job mismatch is significantly and positively related to the increasing unemployment among graduates in Malaysia. Several studies have also proven that job mismatch not only contributes to unemployment but also creates a significant effect on income inequalities due to the skills and qualifications incompatibility for graduates (Kim & Choi, 2018; Veselinović et al., 2020). Therefore, in response to the hypothesis stated, this research affirms that job mismatch crucially contributes to the unemployment among graduates in Malaysia.

5.2.3 The Quality of Higher Education Systems in Malaysia and Unemployment

The willingness of a person to provide a quality education relies on how the process of teaching and learning is carried out, how well the learning environment is in terms of classroom climate, infrastructures, materials provided, and how well the curriculums covered are conducted and prepared for effective learning (Asmaak Shafie & Nayan, 2010)**.** In accordance with the increasing rate of unemployment, several studies have been conducted towards finding the relationship between the quality of higher education systems in Malaysia with its influence on the issue of unemployment among graduates (Hwang, 2017; Young, 2017). Evidently, Shaari et al. (2016) also indicated in their study that there is a strong linkage between education and economic growth, whereby education sustains long-term economic growth within a country. The quality of Higher Education Systems plays a pivotal role in shaping the talents and skills of a person, and undoubtedly, quality education allows graduates particularly to secure jobs after completing their higher education (Hanapi & Nordin, 2014; Hassan & Supramaniam, 2021; Riddell & Song, 2011; Shaari et al., 2016). Thus, the findings have depicted that the quality of Higher Education Systems in Malaysia signifies a significant correlation to the unemployment among graduates in Malaysia, whereby this factor is evident to influence unemployment when there is a poor quality of Higher Education Systems (Erdem & Tugcu, 2012; Kenayathulla et al., 2019; Mpendulo & Mang'unyi, 2018; Núñez & Livanos, 2009). This research, thus, affirms that the quality of Higher Education Systems in Malaysia is pertinent to the unemployment among graduates in Malaysia.

5.2.4 The Employability Skills of Graduates and Unemployment

Moreau and Leathwood (2006) regarded employability skills as a notion for graduates to learn and acquire specific personal skills or abilities that will make them marketable and outstanding in the workforce alongside benefiting the community they serve. Most researchers have similar approaches and meanings in defining the term '*employability skills'* according to a specific context and situation. Abd Manaf et al. (2014) summarised employability skills as the skills and capabilities possessed by a graduate in finding suitable jobs that also match their academic qualifications. These said skills allow the graduates to grow in the same organization or within an independent labour force. Accordingly, among the seven types of employability skills of graduates studied in this research are; *Interpersonal Skills, Computing Skills, Enterprise and Entrepreneurial Skills (Ent), Communication Skills (Com), Thinking Skills (Thinking), Management Skills (Mgm), and Teamwork and Collaborative Skills (Teamwork);* the findings in this study have found that the lack of interpersonal skills among graduates is one of the crucial influencing factors that contribute to unemployment, thus indicating that employability skills, in general, are crucial for graduates to have to secure employment after completing their studies. In fact, several studies have confirmed that graduates' employability

skills are one of the determinants that influence unemployment among graduates, considering that these said skills enhance their marketability for future employment (Asmaak Shafie & Nayan, 2010; Abd Manaf et al., 2014). In conclusion, this research asserts that graduates' employability skills crucially contribute to the unemployment among graduates in Malaysia.

5.3 Research Contributions and Implications

This section highlights this research's contributions and implications, divided into three subsections; theoretical contributions and implications, methodological contributions and implications, and practical contributions and implications.

5.3.1 Theoretical Contributions and Implications

Both theoretical and empirical findings contribute to understanding the interrelation between low wages, job mismatch, quality of Higher Education Systems in Malaysia, and employability skills of graduates to unemployment among graduates in Malaysia. This study also constitutes the researcher's understanding of how low wages, job mismatch, quality of Higher Education Systems in Malaysia, and employability skills of graduates contribute to unemployment among graduates based on the past studies conducted in both local and global contexts. Further, the theories used in this study have thoroughly entailed that graduates' unemployment is part of the frictional unemployment which has described that it often happens among youths, i.e. fresh graduates or workers who are unable to secure employment, i.e. retrenchment, company lay-offs etc. (Weitzman,1982; Carrère et al., 2020). Drawing on the causal nature of this study, the conceptual model of unemployment among graduates in Malaysia has been built based on the relevant literature reviews, be it from past or recently done studies that are pertinent to support the theories structured in this study. All of the conceptualised causal relationships suggested in this study have also been carefully analysed, which consequently proven that the factors of low wages, job mismatch, quality of Higher Education Systems in Malaysia, and employability skills of graduates have a significant impact on unemployment among graduates in Malaysia, thereby supporting the hypotheses proposed in this study. Moreover, though there may have been past or recent research on a similar topic, some of those findings were often generalised to the issue discussed or too industry-focused, thus reducing the result's generality. This study varies from previous research as the factors of graduates' unemployment highlighted in this study are viewed from a post-Covid 19 perspective considering the pandemic that took place in 2020 previously has badly impacted the global labour market, forcing millions of fresh graduates to fall out of employment imminently (Misni et al., 2020). Hence, the results shown in this study are slightly

different considering that this study may have incorporated different points of view to build up the foundation of this research.

5.3.2 Practical Contributions and Implications

One of the primary practical contributions of this study is for the policymakers of Malaysia to stabilize the wage level for graduates on the basis of making the wages in Malaysia livable and acceptable with the rapidly changing and increasing living standards in the country nowadays. The Covid-19 pandemic has badly impacted the labour market in Malaysia, causing many graduates to either be withdrawn entirely from employment due to the lessening of job opportunities in the job market or to force themselves to be underskilled or underemployment due to the job mismatches (Business Today Editorial, 2022). It is imperative for policymakers in Malaysia to realise that suppressing levels and growth of wages are profoundly concerning for graduates, especially in today's environment in the country where the concept of working today goes beyond just making ends meet. As stated by Chong & Adam Khong (2018), destabilizing the wages policies in Malaysia could improve the well-being of unemployed or underpaid graduates by emphasizing a 'livable wages' concept which allows these graduates to at least afford a minimum and acceptable living standard that include the ability to be free from depressing financial stress, to be able to participate in socio-economic activities meaningfully, and lastly, the ability for personal and family development that allows graduates to have a higher quality of life (Chong & Adam Khong, 2018).

Furthermore, another practical contribution is the importance of improving the quality of Higher Education Systems in Malaysia. The findings of this study have shown that this factor is crucially significant in its influence on unemployment among graduates in Malaysia. Several studies have proven that a satisfactory quality of education is essential in determining the quality of graduates to seek employability opportunities after completing their studies (Hanapi & Nordin, 2014; Hwang, 2017; Pr Ndedi, 2011). Ismail (2012) argued in his study that the aspects of tertiary education are not only viewed from the academic perspective but also from the competencies of the Higher Education Institutions (HEIs) educators in providing quality and fulfilling teaching skills that can foster high-quality university graduates. Even so, it has been proven that most of the respondents from the questionnaire conducted for this study strongly agreed that the quality of Higher Education Systems in Malaysia has a critical influence on unemployment among graduates in Malaysia. It should be aligned with the current industry needs that could offer graduates real-life, hands-on experiences related to their courses. Doing so will allow graduates to be more prepared and knowledgeable about what to expect in the real working life that relates to their field of study and, at the same time, allow

them to cultivate the essential employability skills required by employers nowadays (Misni et al., 2020).

5.4 Conclusion

This study aimed to investigate the factors influencing unemployment among graduates in Malaysia in the post-Covid 19 era. The importance of this study is that it has also added significant insights and empirical findings to the literature on unemployment among graduates in the Malaysian context, thus extending the work in this area. Specifically, the findings in this study have concluded that the factors of low wages, job mismatch, the quality of Higher Education Systems in Malaysia, and the employability skills of graduates are significantly influential in their impact on graduates ' unemployment in Malaysia. However, one of the limitations of this study is the sample size bias. Though this study covered the whole 14 states in Malaysia, including Sabah and Sarawak, the researcher has targeted that only 100 respondents should participate in this study. However, a total of 102 responses collected may still give biased responses as it does not constitute the whole population of unemployed Malaysian graduates. Another research limitation of this study is the data collection method. Furthermore, the responses collected for this study are entirely unemployed graduates. This ultimately gives more biased answers considering that the topic focused in this study is solely based on '*unemployment among graduates in Malaysia',* thereby reducing the generalizability of the findings. Instead, the researcher could have incorporated employers as part of the targeted respondents for this study as their take on graduates' unemployment issues could be entirely unbiased and more professional, considering that they are more knowledgable about what to expect from hiring fresh graduates. Lastly, this study warrants further research due to the mentioned research limitations that reduce the generality and accuracy of the findings. This study also suggests that future researchers explore other unidentified variables for this study. These variables may depict a stronger correlation to the subject matter of this research, thereby strengthening the study's final findings.

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APPENDICES

APPENDIX A: QUESTIONNAIRE COVER LETTER

Assalamualaikum and greetings, everyone.

I am Nur Ezyan Najeeha Binti Mohd Salleh, a final year Master of Business Administration student at Universiti Tun Abdul Razak (UNIRAZAK).

With the subject matter mentioned above, as part of the mandatory requirement for subject GRES5316 - Research Project, this survey questionnaire is conducted for my research study on "Factors Influencing Unemployment among Fresh Graduates in Malaysia", especially in the course of today's unprecedented post-COVID Era.

The COVID-19 recession has further aggravated the labour market conditions in Malaysia, leading to more challenging unemployment opportunities for graduates in the country. In 2020, Malaysian graduates contributed to the highest share of unemployment levels and also have withdrawn from the labour force at a substantial rate compared to other age groups. As the job market reduced much higher in 2020 compared to the preceding year, especially in middle-skilled jobs, more youths have been laid off, pushing them to fall into either self-employment or joining the gig economy (e-hailing drivers, food drivers, etc.) that has led to a huge underemployment bracket among youths. In addition, the low wage level among graduates is also one of the unemployment factors that have led to a huge employment withdrawal among graduates.

Accordingly, the purpose of this research is purely intended for academics and the results recorded are solely for data collection and analysis purposes rather than self-interest. Please be noted that data will not be disclosed or sold to third parties for commercial purposes. Your privacy will be retained, and no private information shall be revealed.

To participate in this survey, please click the link below. Please answer all questions as truthfully as possible. Your time and participation in this survey are dearly appreciated.

Thank you.

APPENDIX B: MAIL QUESTIONNAIRE

Using the 5-point Likert scale and nominal scale for the measurement of the respondents' demographic data, the structure of the questionnaire will be divided into the following sections:

Table 2: Five-point Likert scale-1

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Table 5: The Structure & Design of Questionnaire

SECTION & DESCRIPTION	MEASUREMENT OF SCALE USED	SOURCE
Section A Respondent's demographic data: • Age, • Gender, • Residing state • The highest completed level of education, • Period of unemployment • What course did the graduates take in their Higher Education Institutions in Malaysia, and • What type of university did the graduates go to	Nominal scale	Primary data

Table 5: The Structure & Design of Questionnaire

SECTION & DESCRIPTION	MEASUREMENT OF SCALE USED	SOURCE
Section B Independent Variable (1): • Perception of unemployed graduates on the low wages crisis in Malaysia	Likert Scale	(ILO, 2020)
Section C Independent Variable (2): • Perception of unemployed graduates on the labor mismatch in the Malaysian labor market	Likert Scale	(Stoevska, 2014)
Section D Independent Variable (3): • Perception of unemployed graduates on the quality of Higher Education Systems in Malaysia	Likert Scale	(National Research Council, 2003; Teeroovengadum et al., 2016)
Section E Independent Variable (4): • Perception of unemployed graduates on the employability skills	Likert Scale	(Ramisetty et al., 2017; Robinson & Garton, 2008)

i. Section A: General Information

This section discusses the respondent's demographic data. Please ensure the responses are correctly filled out/chosen with respect to the following questions.

Section A: General Information	
Gender	☐ Male ☐ Female
Age	☐ 21 ☐ 22 ☐ 23 ☐ 24 ☐ 25 ☐ 26 ☐ 27 ☐ 28 ☐ 29
Ethnicity	☐ Malay ☐ Chinese ☐ Indian ☐ Others

What is your current residing state?	☐ Johor ☐ Kedah ☐ Kelantan ☐ Labuan ☐ Malacca ☐ Negeri Sembilan ☐ Pahang ☐ Pulau Pinang ☐ Perak ☐ Perlis ☐ Sabah ☐ Sarawak ☐ Selangor ☐ Terengganu ☐ Wilayah Persekutuan Putrajaya ☐ Wilayah Persekutuan Kuala Lumpur
Which of the following is your highest level of education?	☐ Diploma/Matriculation Studies ☐ Bachelor's Degree ☐ Master's Degree ☐ Doctoral Degree (PhD) ☐ Professional Accounting Qualifications (ACCA, CFA, CIMA, etc.)
Which of the following Highest Education Institution did you attend?	☐ Public University or College ☐ Private University or College ☐ Others (Matriculation Colleges, Polytechnics, Kolej MARA, etc.)

Which of the following field of study did you enroll in?	☐ Accounting & Finance ☐ Architecture & Building ☐ Business Management & Administration ☐ Computing & IT ☐ Education ☐ Engineering & Enginerring Trades ☐ Hospitality & Tourism ☐ Law ☐ Medicine & Healthcare ☐ Science (Applied Science/Physical Science/Life Science)

ii. Current Employment Status

This section explores the current employment status of the targeted respondents. Each answer option will link to a different section based on your chosen response:

- Section A (i) - Questions in this section are made for those graduates who are employed and able to secure jobs within the targeted temporal timeframe, which is 1-2 years max after graduation.

- Sections B, C, D & E- Questions in these sections are made for unemployed graduates even after graduating 1 or 2 years max from their universities. Questions in these sections are based on the four proposed factors contributing to graduates' unemployment in Malaysia.

Please choose your response accordingly.

Current Employment Status	
Are you presently employed?	☐ Yes ☐ No

iii. Section A (i): For those graduates who are employed

Section A (i): For those graduates who are employed	
Which of the following is your current employment status?	☐ Permanent Employee ☐ Temporary/Contractual Employee ☐ Part-Time Employee ☐ Self-Employed
Which of the following is your current working sector?	☐ Government Sector ☐ Private Sector ☐ Self-Employed
How many jobs did you apply did you apply for before being able to secure your current work?	☐ _____ *short answer text
How long have you been working in your current position?	☐ Less than a year ☐ 1-2 years ☐ More than 2 years
Which of the following reason(s) that make you want to stay in your current job? (You may choose more than one answer)	☐ Job Security ☐ Family/Peer Influence ☐ Career Challenge ☐ Salaries and Benefits ☐ Proximity to Residence ☐ Related to Academic Qualifications/Course of Study ☐ Working Environment
Is your current job relevant to the curriculum you had enrolled in your university?	☐ Yes ☐ No ☐ Maybe
If your answer is 'Yes', what competencies do you find most useful in your current job? (You may choose more than one answer)	☐ Critical-Thinking Skills ☐ Problem-Solving Skills ☐ Communication Skills ☐ Interpersonal Skills ☐ Entrepreneurship Skills ☐ Information-Technology (IT) Skills
How long did it take for you to get your current job after graduating from university?	☐ 1-15 days ☐ 16-30 days ☐ 1-3 months ☐ More than 3 months

Is this your first job?	☐ Yes ☐ No
If your answer is 'No', what were the reasons for changing your previous job(s)? You may choose more than one answer	☐ Job Security ☐ Family/Peer Influence ☐ Career Challenge ☐ Salaries and Benefits ☐ Proximity to Residence ☐ Related to Academic Qualifications/Course of Study ☐ Working Environment
In your current work, are you entitled to the following work benefits? • Tranportation Allowances • Meal Allowances • Annual-Paid Leave • Paid Sick Leave • Medical Insurance Coverage • Bonus/Reward for Excellent Work Performance • Educational or Training Courses • Occupational Safety/Protective Equipment	☐ Yes ☐ No ☐ I'm not sure
For self-employed workers, why did you choose to be self-employed rather than working as a paid worker? (You may select more than one answer)	☐ Could not find a suitable wage or salary job ☐ Greater independence as self-employed worker ☐ Higher income level ☐ More flexible working hours

iv. Section B: Perception of Unemployed Graduates on the Low Wages Crisis in Malaysia

This section explores the perceptions of unemployed graduates against the low wages crisis in Malaysia and how this is a concerning issue for graduates in Malaysia.

Section B: Perception of Unemployed Graduates on the Low Wages Crisis in Malaysia Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5
Do you agree that low wages in the available jobs are one of the main obstacles for graduates finding a job nowadays in Malaysia?					
With the announcement of an increased minimum wage from RM 1,200 to RM 1,500 by May 1, 2022, do you agree that this wage level increment benefits graduates from finding stable jobs in Malaysia?					
Do you agree that the assessment of employment conditions such as skills and experience directly influence a worker's salary offer?					
Do you think the current minimum wage in Malaysia is equitable to decent, livable wages that reflect the increasing local living costs and the changes in consumption patterns?					

With reference to Figure #, do you agree with the stipulated idea that increasing the minimum wage would lead to higher unemployment?					
Do you agree if graduates who seek jobs nowadays are rather demanding higher pay than accepting what's been offered by hiring employers?					
Do you agree that many graduates nowadays withdraw from employment due to low wages, even if the minimum wage in Malaysia has increased to RM 1,500 since 2020?					
Do you agree that one of the contributing factors that push more graduates to work in the gig economy (food delivery riders, e-hailing drivers, etc.) is influenced by the low wages in Malaysia?					
Do you agree that the new minimum wage increment in Malaysia requires further comprehensive study before implementation?					

Refer to Figure #, do you agree if this is relatable to the current situation faced by Millenials in Malaysia, particularly the fresh graduates?					

v. Section C: Perception of Unemployed Graduates on the Jobs Mismatch in the Malaysian Labor Market

According to a survey conducted in 2020, 63,911 graduates, or roughly 47% of a total sample of 137,087 graduates, are employed in non-graduate occupations. Bachelor's Degree and diploma holders account for 43% and 55% of the total graduate mismatch, respectively (Darusman, 2020). To determine the incidence of this issue, this section attempts to gauge unemployed graduates' relative perception of the growing labour mismatch in the Malaysian labour market.

Section C: Perception of Unemployed Graduates on the Jobs Mismatch in the Malaysian Labor Market Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5
With the aggravated impact of Covid-19 on the Malaysian economic situation, do you agree that it has caused fewer job opportunities, thus resulting in a high rate of job mismatch among graduates?					

Do you agree that most young graduates nowadays accept low- and semi-skilled jobs that pay 2 to 3 times lower though they may be overqualified for these underpaid jobs?					
Do you agree that job mismatch plays a crucial role in influencing unemployment among graduates in Malaysia?					

Referring to the following *dimensions of job mismatches, do you agree that these dimensions are the attributing factors to the increasing rate of unemployment among graduates in Malaysia?

* Dimensions of Job Mismatch by Kriechel and Vetter (2019)

- Overeducation
- Undereducation
- Overskilled
- Under-skilled
- Field of education to job mismatch
- Skills shortage
- Skills gap

Do you agree that job mismatches relate to graduates being picky with the available jobs despite the disproportionate wages in Malaysia?					
Do you agree that the policymakers should reform to upskill the labor force to meet the labor market demands that can produce high-skilled labor among graduates?					

vi. Section D: Perception of Unemployed Graduates on the Quality of Higher Education System in Malaysia

This section attempts to study the perception of unemployed graduates on the quality of Higher Education Systems in Malaysia.

Section D: Perception of Unemployed Graduates on the Quality of Higher Education System in Malaysia
Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Statement/Scale	1	2	3	4	5
Do you agree that the quality of the Higher Education System in Malaysia has a contributing factor to the unemployment issue among graduates?					
Do you think that the current quality of the Higher Education System in Malaysia is aligned with the required industry needs to ensure the graduate's future workplace employability?					

Do you agree that the following factors affect the effectiveness of Higher Educational Institutions in producing quality graduates for future employment? • Lecturer's Teachings Competency, Skills, Knowledge, Personal Values, Attitude and Motivation • Lecturer's Leadership Qualities of the • Classroom Climate • The Quality of Educational Syllabus and Curriculum • Lecturer's Area of Expertise • Continous Trainings and Courses for Lecturers • Higher Education Institution's (HEI) Academics Structure • Relevancy of Curriculums Structuted With Various Industries • Poor and Inferior Quality of Assessment Process • Ineffective Presentations Through Lecturing • Lack of Active Independent Learning Encouragement • Vague and Unclear Aims, Objectives, and Standards					
Do you agree that Higher Education Institutions (HEI) in Malaysia are not providing industry-focused programs/courses that can enhance the graduate's skills and employment?					

Do you think the Ministry of Higher Education (MoHE) should reform the curriculum structure of Higher Education Institutions in Malaysia to ensure it is based on the needs of the industries?					
Do you agree that the Higher Education System in Malaysia should embrace the internalization of tertiary education to improve the local tertiary education quality?					

vii. Section E: Perception of Unemployed Graduates on Graduates' Employability Skills

This section explores the perception of unemployed graduates in the influence of graduates' employability skills on unemployment in Malaysia. There are seven (7) employability skills proposed in this section. Please choose your answer(s) accordingly.

Section E: P Perception of Unemployed Graduates on Graduates' Employability Skills Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5

Based on the following dimensions of employability skills, do you agree that most graduates nowadays lack the necessary skills or competencies to enter the labor market? • **Interpersonal Skills** - The skills to interact with others • **Computing Skills** - The skills of knowledge and understanding of information and communication technology (ICT) and the ability to use computer programs and related applications that are associated with computers. • **Enterprise and Entrepreneur Skills** - The skillls to explore an opportunity and create risk awareness, and to be creative and innovative in business/work • **Communication Skills** - The skills that people use to communicate effectively with others • **Thinking Skills** - The ability to think critically, creatively, innovatively and analytically, and the ability to apply the knowledge in different contexts • **Management Skills** - The skills to effectively lead, supervise, and manage projects/people • **Teamwork and Collaborative Skills** - The ability to work well with others during conversations, projects, meetings, and other collaborations.					

1. Which of the following attributes describe you best that you may be lacking for the needed interpersonal skills based on employers' expectations in graduates?

Interpersonal Skills - The skills to interact with others Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5
Ability to work and contribute in groups/teams					
Ability to understand other peoples' problems, emotions, concerns, and feelings related to work					
Ability to negotiate with subordinates or colleagues					
Ability to encourage and motivate others					
Ability to network					
Ability to work in a diverse working culture					
Ability to deal with superiors					
Ability to lead & manage people					

2. Which of the following attributes do you think you may lack for the needed computing skills based on employers' expectations of graduates?

Computing skills - The skills of knowledge and understanding of information and communication technology (ICT) and the ability to use computer programmes and related applications that are associated with computers Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5
Level of keyboard competency					
Ability to understand other peoples' problems,Ability to use word processing software emotions, concerns, and feelings related to work					
Ability to use statistical software package					
Ability to deliver effective presentations using computer software					
Ability to use database programs for/data management					
Ability to use spread sheets for data analysis					
Ability to search and manage the relevant information from various sources					

3. Which of the following attributes do you think you may lack for the required enterprise and entrepreneurial skills based on employers' expectations of graduates?

Enterprise and entrepreneurial skills - The skills to explore an opportunity and create risk awareness, and be creative and innovative in business/work Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5
Ability to explore and identify business opportunities					
Ability to develop a business plan					
Ability to develop business opportunities					
Ability to capitalise on business opportunities					
Ability to be self-employed					

4. Which of the following communication skills do you think you may lack based on employers' expectations of graduates?

Communication skills - The skills that people use to communicate effectively with others Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5
Ability to listen attentively and give appropriate feedback					
Ability to negotiate and reach consensus					
Ability to write effectively in Bahasa Malaysia					
Ability to write effectively in English					

Ability to write effectively in other languages					
Ability to speak fluently in Bahasa Malaysia					
Ability to speak fluently in English					
Ability to speak fluently in other languages					
Ability to communicate formally and informally with people from different backgrounds					
Ability to effectively deliver presentations of a case/project					
Ability to express his or her own ideas clearly, effectively and with confidence					

5. Which of the following thinking skills do you think you may lack based on employers' expectations of graduates?

Thinking Skills - The ability to think critically, creatively, innovatively, and analytically, and the ability to apply the knowledge in different contexts Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5
Ability to recognise and analyse problems					
Ability to explain, analyse and evaluate data and information					
Ability to generate creative ideas					
Ability to think critically to write effectively in English					
Ability to learn and apply new knowledge skills					

Ability to understand statistical and numerical data					
Ability to think outside of the box					
Ability to make logical conclusions by analysing relevant data					

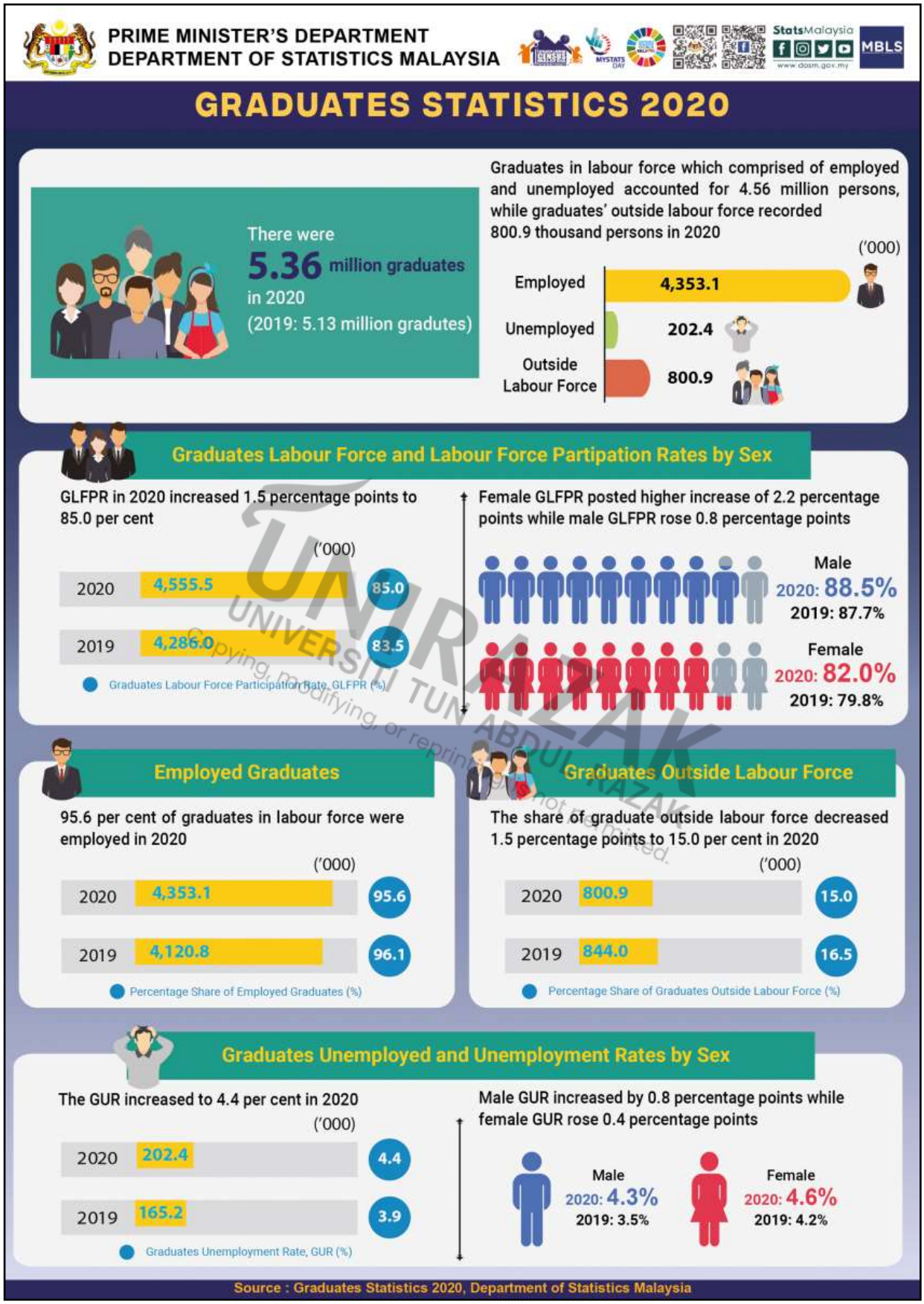
6. Which of the following management skills do you think you may lack based on employers' expectations of graduates?

Management Skills - The skills to effectively lead, supervise, and manage projects/people Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5
Ability to lead a project					
Ability to monitor group members					
Ability to optimise the use of resources					
Ability to have a good time management					
Ability to plan, coordinate and organise a project					
Ability to monitor group members to achieve targets					
Ability to plan and implement an action plan					
Ability to work under pressure					
Ability to work independently					
Ability to deliver expected results					

7. Which of the following teamwork and collaborative skills do you think you may lack based on employers' expectations of graduates?

Teamwork and Collaborative Skills - The ability to work well with others during conversations, projects, meetings, and other collaborations. Note: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree					
Statement/Scale	1	2	3	4	5
Ability to build good relations and have good interaction with other people, and work with them effectively to achieve a common goal					
Ability to understand and switch between the roles of a team leader and a team member					
Ability to recognize and respect atttudes, behaviours, and beliefs of other people					
Ability to contribute to the planning and coordination of group work					

APPENDIX C: MALAYSIAN GRADUATES STATISTICS AS OF 2020



Source: (DOSM, 2021)

APPROVAL PAGE

TITLE OF PROJECT PAPER: FACTORS INFLUENCING UNEMPLOYMENT AMONG GRADUATES IN MALAYSIA DURING THE COVID-19 ERA

NAME OF AUTHOR : NUR EZYAN NAJEEHA BINTI MOHD SALLEH

The undersigned certifies that the above candidate has fulfilled the condition of the project paper prepared in partial fulfillment for the degree of Master of Business Administration.

SUPERVISOR

Signature : _____

Name :

Date :

ENDORSED BY:

_____

Dean

Graduate School of Business

Date: