

MACROECONOMIC FACTORS THAT AFFECTING YOUTH UNEMPLOYMENT IN MALAYSIA

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ABSTRACT

The purpose for this research was to identify the impact of the macroeconomic factors that is inflation rate, Gross Domestic Product (GDP) and Foreign Direct Investment (FDI) towards to youth unemployment in Malaysia. This research collects the data from Bloomberg and the data that have been collected will be analyse using the Eviews software. The result of this research shows that inflation rate and GDP have a negative relationship with youth unemployment. Meanwhile for the FDI, it shows a positive relationship with youth unemployment. The researcher hopes that this research can help giving more information on the impact of macroeconomic factors towards youth unemployment in Malaysia. Lastly, the researcher also hopes that the problem of youth unemployment in Malaysia can be reduced by doing this research.

INTRODUCTION

Youth unemployment can be defined as those that aged from 16 to 25 years expressed as a percentage of the youth labour force. The youth group can be categorised is by the chronological age. It means that the minimum age of the youth is vary for a different purposes voting right, marriage, consuming alcoholic beverages, criminal responsibility, medical treatment, criminal responsibility and so on. Youth can also be defining as social and

economic concept that refers to a different stage in a lifecycle between childhood and adulthood (Curtain, 2011). It also known as those people who report that they did not have a work and that they are available for work. Unemployed youth also known as people that have actively searching work in last three to four weeks.

The definition for unemployment is the difference on a labour supply and labour demand. International Labour Organization (ILO) define as an unemployment that people have not worked more than a short period of time, however they are still available for jobs and still seeking work actively (O’Higgins,1997). According to ILO Convention No.138, for an employment the minimum age is around 15 years old, however variation exists in the definition of youth for a statistical purpose. The United Nation (UN) and ILO stated that youth unemployment in a labour force is around 15 until 24 years inclusive without work, however available for jobs and actively

seeking employment.

According to O’Higgins (2001), the determinants of youth unemployment is based on lack of skills that the youth have, size of the youth labour force, youth demands and aggregate demand. It seems that the youth unemployment is more sensitive to the changes in aggregate demand than the adult unemployment. This is because young individuals are more likely than the older workers to leave their jobs by voluntary. In a situation such as recession, the first thing for the firms to react in a recession is that to stop any recruitment and this would affect strongly on young people. Moreover, the redundancy procedures that have been start by the firms will make it cheaper for them to fire the young workers rather than the older workers. In the labour force framework, unemployed people is the person that currently active population, that is along with the employed and constitute the labour force. For the youth unemployment, it is the people that are subset of the unemployed.

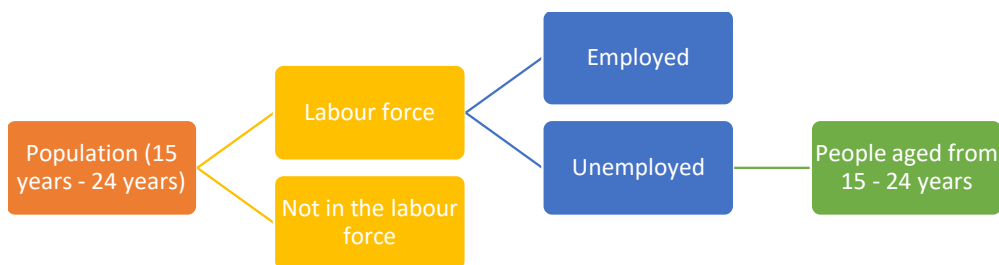


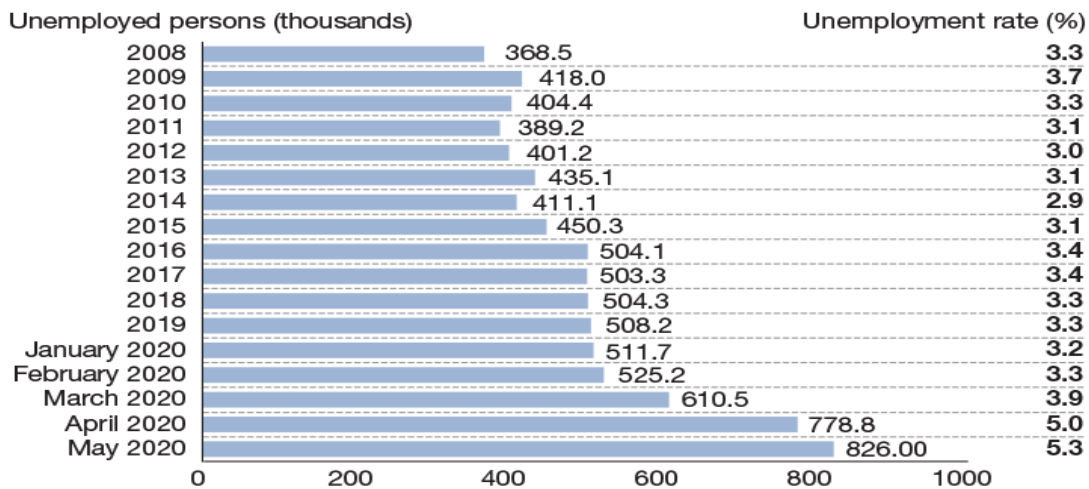
FIGURE 1: LABOUR FORCE FRAMEWORK

There are three major impact of youth unemployment towards economic growth in a country that is based on Gross Domestic Product (GDP), inflation and Foreign Direct Investment (FDI). Youth unemployment that is one of the part of unemployment is influencing Gross Domestic Product. Okun’s Law stated that a 1 percent decrease in unemployment rate may increase the GDP growth by 2 percent

(Muhd Irpan, Hamidah & Mat Saad, Rosfadzimi & Ibrahim, N.,2016). A Short-Run Philips Curve shows that there is a trade-off between unemployment and inflation. This theory stated that as unemployment decreases to 1 percent the inflation will increases to 15 percent. Findings about FDI shows that a 1 percent increase in FDI will cause a decrease of 0.009 percent in unemployment.

Unemployment in Malaysia

Malaysia unemployment rate from 2008 to May 2020



Source: Department of Statistics Malaysia

FIGURE 2: UNEMPLOYMENT IN MALAYSIA FROM 2008 UNTIL 2020

SOURCES: Shankar, A. C. (2020, July 14). TheEdgeMarkets. Malaysia Unemployment Rate Escalates to 5.3% in May. <https://www.theedgemarkets.com/article/malaysia-unemployment-rate-escalates-53-may>

Unemployment is a big concern in developed countries. High unemployment implies there is no effective usage of human capital. Full employment should also be a key macroeconomic priority of every country, since it maximizes production (Zaleha Mohd Noor et. al, 2007). Based on the graph of unemployment rate above, we can see that the rate start raises from April 2020 to May 2020. According to the Department of Statistics today Malaysia’s unemployment rate grew from 5% in April 2020 to 5.3 % in May 2020 as the number of unemployed citizens rose by 47,300 to 826,100. The monthly rise in the amount of unemployed people in the month of May 2020 shown that it decreased and was far smaller than the shift reported at 168,300 between March and April.

The decline may be attributed in part to the introduction of various incentive measures that met its expected goal, in addition to encouraging more companies to work during the month following the conditional movement control order (CMCO). The May 2020 economic measures indicated progress relative to April 2020 and this suggested a steady change in

the economy. Following this, this condition has changed considerably relative to April 2020, considering the ongoing downward pattern in labor supply up to May 2020. The Recovery Movement Control Order (RMCO) came into force on 10 June 2020, with market standards steadily improving as more businesses are authorized to open under tight standard operating procedures. Implementation will allow companies to recover traction, although new market opportunities are developing as demand shifts in the new standard.

In the month of June 2020, the rate of unemployment in Malaysia decreased from the record of peak at 5.3 percent in May 2020 to 4.9 percent when more industries such as the industry services, reopened as a consequence of the adoption of the nation’s Recovery Movement Control Order (RMCO) to stimulate the economy of the country thus hold back the Covid-19 pandemic. The amount of persons that is unemployed has decreased by 52,900 individuals that also known as 6.4%, to 773,200 people in June 2020. However, the reopening of further economic sectors like schooling, religious and social activities following the

RMCO, shows some enhancement in the labour supply situation during the month of RMCO.

PROBLEM STATEMENT

Unemployment rates are higher among the young generations than among the general population and it shows that it is a serious risk for the country. (Torild Hammer, 2003). Malaysia has faced the highest youth unemployment that is at 10.9 percent. It

is lower than the regional average of 12.2 percent in Southeast Asian, however Malaysia is the third highest youth unemployment rate in ASEAN after Philippines and Indonesia rate youth unemployment. Local policymakers are worried because even though Malaysia is climbing up to the developmental ladder, a future economic growth still needs to increase from gains in productivity of youth. Moreover, development of technology nowadays makes it more important to prepare the country's youth for labour demands of the future.

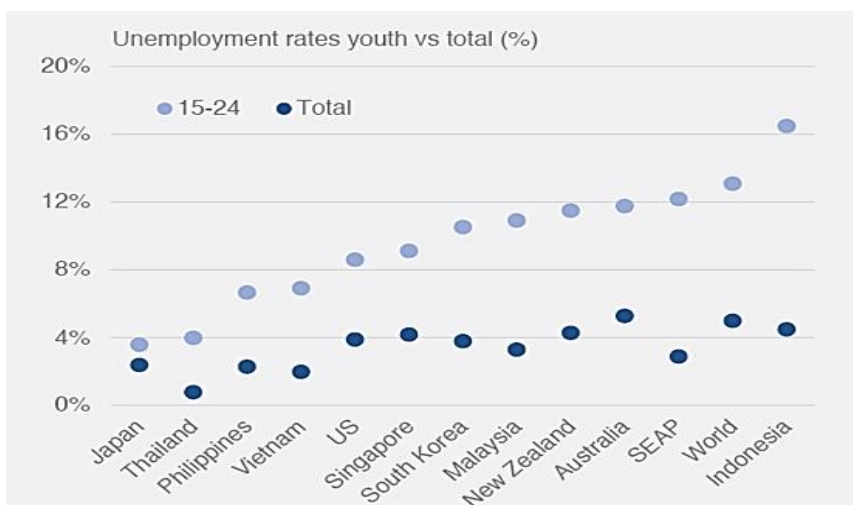


FIGURE 3: Youth have higher rate of unemployment than the total population in 2018

SOURCES: Unemployment - Youth unemployment rate – OECD Data. (2020b). TheOECD. <https://data.oecd.org/unemp/youth-unemployment-rate.htm>

Youth unemployment has increasingly been recognized as threat issues to the slower structure of economic growth rates. Youth unemployment in Malaysia is have been a threat to this country because a long term can have a negative effect on the lifetime income and well-being of young jobseekers. It will give big impact on the aggregate economy that weighing down productivity and undermining human capital accumulation in the country's workforce. The problem of youth unemployment in Malaysia are having many sides, that is based on age, income components and geographic.

The youth unemployment rate in Malaysia has been rising over the past decade,

that is in 2018, the total unemployment is 504,000 and 60 percent of the it is from youth that are unemployed. Other than that, the Ministry of Education also make a statement that there are 57,000 out of 173,000 in 2018 year's graduates still remained jobless even after seeking for some job for around six months. The main reason that this situation happened because the graduate of youth unemployment is having the mismatch of graduate qualifications with the country's workforce qualifications. It also shows that 86.9 percent from 1.47 million vacancies shows that it is for the low skilled jobs. It also shows that there are only 4.7 percent that are really required tertiary qualifications for the youth graduates unemployed.

A group of teenagers is more likely handling unemployment than young adults, that is the rate of youth unemployment is much higher in Sabah, Terengganu and Kelantan. This states also more prevalent in lower income that is having disadvantaged communities. In addition, the data on labour force and job creation characteristics suggest that there is a mismatch between the supply and demand sides of labour market along with inefficient matching and information asymmetries has been one of the contribution in youth unemployment in Malaysia.

Other than that, news from Malay Mail stated that rural youth unemployment has been estimated that it has increases to 90,000 unemployment. This statistic does not count the people that still living with their own families and have not stated that they

are actively seeking for work. Rural youth unemployment has been considered as a normal situation in Malaysia's villages over the past decade. Rural youth unemployment is only educated on primary level to a secondary school and with many of them not finishing their school. They also stated that they don't have any motivation to travel to towns because the jobs that only pay a lower wage. This is because there are having low skills and can only speak Malay. This case has made many non-skilled jobs are more interested in joining as foreign workers that makes this jobs are socially unappealing to the local youths.

In 2020, many economists have stated that lockdown policies across the world would intensify work losses, and that in many countries this is already showing up in unemployment graph below:

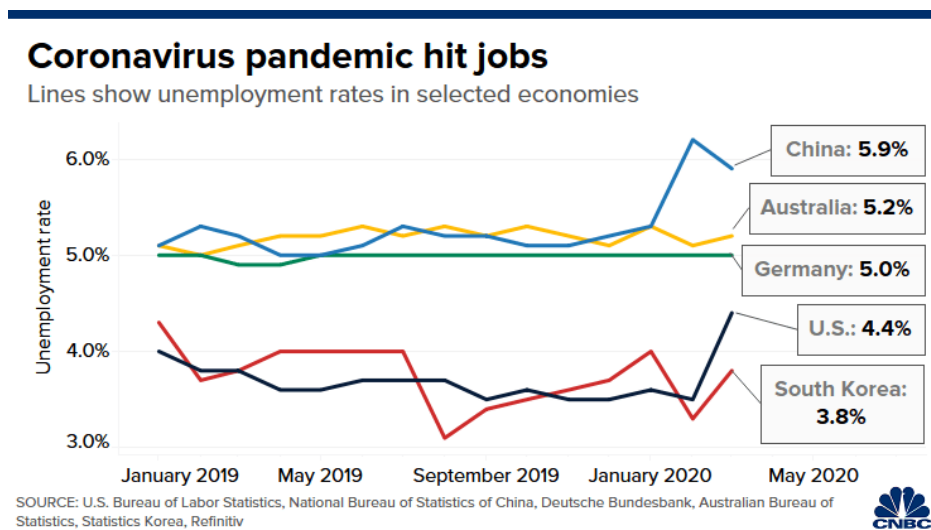


FIGURE 4: Coronavirus pandemic hit jobs

SOURCES : Lee, Y. N. (2020, April 24). 7 charts show how the coronavirus pandemic has hit the global economy. CNBC. <https://www.cnbc.com/2020/04/24/coronavirus-pandemics-impact-on-the-global-economy-in-7-charts.html>

The statistics shows that there are more than 26 million workers have been destroyed in the United States, the world's biggest economy. According to the Bureau of Labor Statistics, the country's unemployment rate is the strongest since August 2017 which is 4.4 per. The United States is not isolated in combating that unemployment. After that, the graph also shows that South Korea and America

have saw an upturn in rates of unemployment, with some analysts suggesting the problem could get worse.

Low unemployment ensures the economy is able to operate near maximum potential, optimize productivity, fuel income increases and raise living standards over time. Highly low unemployment, though, may also

be a cautionary indicator of an overheating environment, inflationary pressures, and tough constraints for companies requiring additional staff. Every country needs to get a good rate to be declared as a country that has no unemployment problem in the country.

Youth employment has been the biggest challenge that have been facing in Malaysia and for the local too. This situation would give some impact on their mental health that is trauma for the young people. It will give a bigger impact to those that are burdened by an education that having some problem debts or family financial problems. It could be worse that it may also give impact to their withdrawal from participation on the economy.

Impact Youth Unemployment On Economy

Youth unemployment in industry is actually depending on the market. "Unemployment is created in some countries where there is less self-employed and more people with less income" (Anderson, 2006). Developing countries such as the Europe and United Stated the rate of the unemployment of the countries is considered low. This is because many workers are self-employed is and also working in the sector of agriculture. Unemployment is giving a negative impact to the economy of the country when the production is decreasing below the average. Whenever there is an increase in rate of unemployment in some of the certain country, the government of the country need to bear extra burden of borrowing due to the decline of the productivity of the people and also the less goods and services use. "Unemployed people do not work and do not contribute to the country's tax production, but they still demand government compensation and this is an unnecessary burden for the country as a whole" (Baker, 2009).

There are several social impacts because of unemployment which are loss of skills, mental illness, poor standard of living, political instability, insecurity among existing

employees, increase crime rate and financial obstacles. Firstly, insecurity in society is getting out of hand nowadays because of difficulties to have jobs, and this would lead people lose their skills and it causes lack of human resources. Secondly, the unemployment will give some mental illness which is there would be lack of self-confidence, anger, pessimistic feelings toward normal items as money is wasted, and the self-esteem of a person will be affected because of these mental illnesses. Thirdly, the unemployment creates financial obstacles for the family because people cannot fulfil their financial commitments on time and this would create resentment among family members. It also will create stress at their home and could probably lead to suicide. After that, the others affect is increasing in crime rate which is when people have no discretionary money, in order to maintain their lives, they will decide to do crimes such as stealing, robbery and murder.

Unemployment would also make people lose interest in administration and the government because of their insecurity and this will trigger political instability. Next, the others affect is they will have an insecurity among existing employees which is as the economy is getting worsen because the issue of unemployment, it causes uncertainty among current workers and their buying power declines because of fear or instability in their work. Last but not least, unemployment is creating lower living conditions as competition for jobs will intensify and people will expect their incomes would be less than before and their living standards will get worst because of their low salaries.

RESEARCH QUESTION

- a) Does Gross Domestic Product affect the youth unemployment in Malaysia?
- b) Does inflation rate affect the youth unemployment in Malaysia?
- c) Does Foreign Direct Investment affect the youth unemployment in Malaysia?

RESEARCH OBJECTIVES

This study wants to identify the impact of macroeconomic variables towards youth unemployment in Malaysia. The specific objectives of the study are as follows:-

- To analyze the effect of Gross Domestic Product towards youth unemployment in Malaysia.
- To examine the effect of inflation rate towards youth unemployment in Malaysia.
- To identify the effect of Foreign Direct Investment towards youth unemployment in Malaysia.

SCOPE OF STUDY

This research focuses on the impact or the effects of youth unemployment in Malaysia. Youth unemployment is not a new issue in this country because it has been happening since years ago. However, the purpose to analyse more in this issue is to come up with people and government notice that this issues is something that need to be solved with proper solutions and they will know how big the impact of this youth unemployment towards the economic growth of Malaysia. Youth unemployment needs to be understood even in a deeper context in order to find better solutions to solve this issue.

The data was obtained from our secondary sources, that will help to analyse more about the impacts that can influenced this issue. Secondary data is known as the data that has been collected through some primary sources and the data is available for researches to use it in their research. It also known as a type of data that has been already collected in the past. For instance, there are journals from the Internet to explore quantitative research data in order to obtain the best results in the study. A secondary data can be more benefits because this research need to see other people perspectives regarding this issue. The example source of journals that been used in this research are from Bloomberg, Department of Statistics Malaysia, Statistica and World Bank.

As for the time horizon, this research would cover the data in 19 years of time which is from 2017 to 2019. The location that have been chosen to conduct this research is in Malaysia. Malaysia has 13 states which are Kedah, Johar, Kelantan, Pahang, Malacca, Negeri Sembilan, Perlis, Perak, Penang, Selangor, Sarawak, Terengganu and Sabah. Other than that, Malaysia also has 3 Federal Territories which consists of Kuala Lumpur, Putrajaya and Labuan.

LITERATURE REVIEW

Definition of Youth Unemployment

The United Nations and The International Labor Organization's (ILO) stated that youth unemployment is part of the labour force, that is in the age of group between 15 and 24 years without working but also available for work and seeking for employment. In comparison, it's some individuals that are available for jobs in the economy or people that don't have qualifications in a workforce needs. According to O'Higgins (2011), the study shows that the size of the youth unemployment can be changed by the number of young people that are not employed or in education or even in training.

$$\frac{\text{Total number of unemployed people}}{\text{Total number of unemployed people}} \times 100$$

According to the OECD (Organization for Economic Co-operation and Development), youth unemployment defines as citizens that over 15 years' old are not in paying or self-employed jobs but are actually available for work during a certain period time. Unemployment is evaluated by the rate of unemployment rate, that is the number of unemployed individuals as a proportion of the work force (the cumulative number of working individuals applied to the unemployed). The overall unemployment can be measured by using this equation:

$$\frac{\text{Total number of youth unemployed}}{\text{Total number of unemployed people}} \times 100$$

For the youth unemployment, the unemployment rate will be known by dividing the total number of youth unemployment that is for a specific group of workers that is the age group from 15 until 24 years, that is also the total of the amount persons unemployed and employed in the group.

Unemployment is an important economic measure since it signifies employees' willingness or incapacity to find gainful jobs readily and add to the economy's efficient production. There a lot of macroeconomic factors that affecting the unemployment, that is inflation rate, Gross Domestic Product and Foreign Direct Investment.

Relationship Youth Unemployment with Macroeconomic Factors

According to Volker (2005), Gross Domestic Product (GDP) is the total of the value of all products that been produced in a certain country during a fiscal year. GDP is known as one of the indicators of growth rate and production in a country's economy. It also plays a strategic role in development, balance payment and employment. Several studies have been carried out on the correlation between rate of unemployment and GDP to support the Rule of Okun. Studies of the growth-to-unemployment relationship had a single predictor and other variables like more.

Okun's Law that had been found by Arthur Okun at 1962 reported that rate of unemployment is negatively associated between output (Laurence Ball, 2013). Laurence also stated that Okun's law also provides a substitution among the economic growth and unemployment. It also known as an empirical law that put forward by the Arthur M. Okun.

Studies have also employed numerous approaches to develop the relationship. Ang and Loganathan (2013) analysed the correlation between unemployment rate and GDP based on law of Okun, for developed and emerging Asian countries. Using the hierarchical the

causality of Granger and co-integration for the correlation between unemployment rate and GDP growth, the results shows that growth rate and unemployment are positively associated in a short term and in a long term for both developing and developed Asian countries. The results comply with the Law.

However, one analysis that have been done by Thayaparan (2014) stated that GDP has a large contribution negative effects on joblessness in Sri Lanka. Study that conducted by Dell'Anno and Solomon (2008) looked into the Okun's law was valid in the sense of the underground economy and have found that substantial good shadow economy to the unemployment relation. Their finding explained in the study that the jobs that they loss during a slowdown in their economy activities that make the unemployed into some shadow activities. More than that, a study that have been conducted by Plehn-Djowich (2012) used two variables in the study, that is the entrepreneurship to estimate the effect on unemployment and the effect of growth, the result shows that growth has a positive effect on unemployment.

In the book of The Principle of Trading Economics, Okun's Law define as each 1 percent increase in the rate of unemployment above the 4 percent is associated with the 3 percent in the actual GDP relative to potential GDP. Originally, this law is used to identify the level of the potential of GDP, but it has been developing into the correlation between unemployment and economic growth. Output and employment also commonly move together. (Christopher J. Neely, 2010). However, there are some economists concluded that the relationship between unemployment rate and GDP does not stable over time and it is different from across countries (Lee, 2000).

The International Monetary Fund (2010) also do some examination based on policies and the role of intuition on the changes in Okun's law across in every countries and in different times. Bartolucci et al. (2011) explained that a model that able to know

some additional effect of financial crises on the unemployment is actually beyond their effect of passing through GDP changes, that is an additional effect is because of an increase in some systematic uncertainty.

Inflation can affect country's economic in a negative and positive ways. The bad side of inflation that is the uncertainty over future, discourage saving and investment and also will increase the opportunity cost of holding money. The positive impacts of inflation are that it could keep the nominal interest rates at the above zero, it means that central banks can fix their interest rates in order stabilize the economy and also will reduce the unemployment rate to nominal wage rigidity. It also will reduce the burden of public and private debt (Dr Rubees Singh, 2018). There are some research studies that have been made and the quantitative results about inflation and unemployment shows that both are positively associated to each other (Mocan, 1995).

Mehrnoosh Mohsenia and Feizolah Jouzaryanb (2004) studied the correlation between inflation rate and unemployment over a period of time among the young people Romanian that have the age of 19 to 24 years old. The research had used the Philips Curve to analyse all of the data that have been collected. The result of this study stated that the correlation between unemployment and inflation was not direct among the young people. However, the indirect correlation that preferred by Philips was establish in the next years and it reacted differently to measure the economic policies.

Phillips curve can be defined as the correlation between inflation rate and unemployment that were introduced back in 1958 that have been found by Phillips (Melina Dritsaki, 2013). The researcher also stated that Phillips back then found that there is a negative correlation between money wage and unemployment growth in the country of United Kingdom. Solow and Samuelson (1960) were the first researchers that agree in

the theory of Phillips research. They support the theory of the negative relationship between unemployment and inflation. Lucas (1967) also supported the hypothesis of Phillips, that is there could be a trade-off between the correlation of inflation rate and unemployment.

Researcher such as King and Watson (1994) also doing some research that was to test the theory of Phillips curve by only using macroeconomic data for the United States America. The results from the research shows that empirical support to the theory of the trade-off correlation between inflation and unemployment over their period that have been examined. Reichel (2004) using Phillips hypothesis on their research for the industrialised economies and they have found there are trade-off between inflation and unemployment in the United States America and Japan. Other than that, Furuoka (2011) also had used the Phillips curve in their long-run research and casual correlation between inflation rate and unemployment rate in Malaysia during the time of 1975 until 2004. In addition, Islam et al (2011) using Phillips hypothesis for their research of North Cyprus. Their result stated that the estimates point in the study shows the existence of Phillips curve both in the short run and in the long run.

Shahid (2014) also done a study about the impact of unemployment and inflation on the economic growth in Pakistan. The data is taken from World Bank that is from 1980 until 2010. The dependent variable in the study is the economic growth, meanwhile the independent variables would be unemployment and inflation. Shahid had use Augmented Dickey Fuller (ADF) to detect unit root to identify the impact of inflation rate and unemployment on the economic growth. The study had stated that the variables were stable.

Barro, Alexander and Sarel Models (1997) also had made a research about the relationship of economic growth and inflation.

The method that they had used is Condition Least Squares (CLS) to estimate their model. To select an optimal threshold for inflation, the minimized square error had been used. From the results of the study, it had showed that 3 rates of inflation are under the 10 percent, between 10 percent and above the 19 percent. All of the value were insignificant except the index of under the 10 percent. It shows that it is positive but statistically insignificant. The inflation has a negative impact on economic growth because the upper levels and the middle levels of inflation are significant. This shows that an increase in inflation rates would have an intensely negative impact on the economic growth.

Another studies by Zabihi and Lotfi (2012) that is to identify unemployment rate with the potential output growth and inflation. The researchers used the Okun's Law Equations and Phillips Curve. To log as random unobserved processes in the system with the three variables that is unemployment, inflation and output growth, they had used unobservable key economic variables. The results of the study stated that it constantly had a negative correlation of output gap with the deviation of unemployment rate from the unemployment rate with respect to inflation. It also shows that business cycles had given a bad effect on inflation and unemployment.

Foreign Direct Investment (FDI) is an activity in which a permanent investor in one country has an enduring stake and a major impact on the management of an individual living in another country (OECD, 2003). When 'greenfield investment' or merger and acquisitions (M&As) are concerned. The former represents the creation of an entirely new undertaking and exerts more positive impact, whereas the latter reflects the alteration of control of current undertakings and has a smaller positive impact or even negative externality. FDI may also be defined as other forms of financial transactions between undertakings, such as reinvestment of FDI enterprise earnings.

There is a lot of economist believe that FDI has become one of the indicator of economic development in a certain country and for the developing ones. Denisia (2010) doing a study on FDI to led on a better understanding of economic performance and also the behaviour of economic indicators. The study shows that there some complex impacts of FDI on its relationship with economic growth.

Lin and Wang (2004) studied on the relationship of FDI and unemployment in the G-7 countries. Generalized least square (GLS) had been used in estimating the regression in a system of separate equations for the individual countries. The study showed that FDI is found to have a negative correlation with the unemployment rate in all of the G-7 countries.

A study also had been made by Schemerer (2012) that is a study about a simple multi-industry trade model with some search frictions in the labour market. Unemployment and FDI has been tested using Economic Co-operation and Development countries on unemployment rate, labour market institutions and FDI macroeconomic data. The result from the study shows that the model in the net percentage FDI is correlated with a lower rates of aggregate unemployment.

Mpanju (2012) made a study about the effect of the inflows of FDI on employment generation creation in the country of Tanzania from 1990 until 2008. There is a strong positive correlation between the variables, this means that FDI has a significant effect on the pattern of opportunities of employees from this research. According to Mohd Shahidan Shaari, Nor Ermawati Hussain and Mohd Suberi Ab. Halim (2012), they also stated that their results showed that FDI helped in reducing the unemployment rate, that is a one percent increase in FDI will caused a decrease of 0.0009 percent in unemployment.

Chaudhuri and Banerjee (2010) analysed the three sector in general equilibrium model with the simultaneous unemployment for the

both unskilled labour and skilled labour to identify the effect of FDI on agricultural land and also the developing economy. The outcome of the study showed that FDI in the agriculture sector can create social welfare. More than that, FDI proved that can reduce the problem of unemployment in each type of labour.

Hypothesis of The Study

i. Youth unemployment and Gross Domestic Product (GDP)

HO: There are significant relationship between Youth Unemployment and the Gross Domestic Product (GDP).

H1: The are no significant relationship between Youth Unemployment and the Gross Domestic Product (GDP).

ii. Youth Unemployment and Inflation Rate

HO: There are significant relationship between Youth Unemployment and the inflation rate.

H1: There are no significant relationship between Youth Unemployment and the inflation rate.

iii. Youth Unemployment and Foreign Direct Investment (FDI)

HO: There are significant relationship between Youth Unemployment and the Foreign Direct Investment (FDI).

H1: There are no significant relationship between Youth Unemployment and the Foreign Direct Investment (FDI).

METHODOLOGY

Research Design

This research has been made to identify the correlation between the independent and dependent using time series data by the application of Bloomberg. Bloomberg

is well known as a major global that provide services of 24-hour information and news. It includes a historical price data and real-time, trading news, financial data, analyst coverage, general news and sports. Bloomberg also known as one of the most important financial companies in the world. The researcher using the Bloomberg in order to get all the data of the rate of unemployment in Malaysia and the data for inflation rate, Gross Domestic Product (GDP) and Foreign Direct Investment (FDI).

After get all the data from Bloomberg, the researcher will analyse that data using EViews. EViews is a modern econometric, mathematical, and prediction kit offering powerful analytical methods inside a versatile, easy-to-use system. Using EViews, the researcher can handle the data easily and effectively and also can do some statistical analysis and econometric. It also can create model simulations or forecasts and can develop a high-quality graphs and tables for publishing or integrating into other applications.

Research Framework

Research framework was first used by several researches that is Bharumshah (2001), Yasmina (2012) and Aziz (2008). This study will have three variables that will be the independent variables the inflation rate, Gross Domestic Products (GDP) and Foreign Direct Investment (FDI) and the dependent variables would be the youth unemployment.

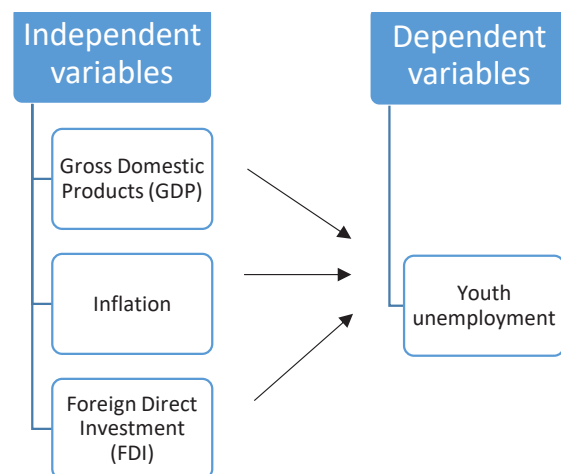


FIGURE 5: CONCEPTUAL FRAMEWORK

From the above theoretical framework, the GDP, inflation and FDI are chosen to be the independent variables to youth unemployment because these macroeconomics factor are the factors that will determine the amount of youth employed. If the growth of GDP is strong, firms or company can take or hire more workers because they can afford to pay a higher salaries or wages. Consumers would tend to do more spending on goods and services. For the inflation, if it becomes too high, the economy will suffer and they need to fire some employees and will not accept any workers. However, if it's controlled or lower inflation, youth employment can increase. Meanwhile for FDI, it has an indirect positive effect on employment growth. It means that FDI may decrease the number of jobs in the short run by producing more labour-saving technology. However, it will increase job growth in the long term by enhancing labour productivity.

Research Model

This analysis is composed of quantitative approach and the econometric model is used to evaluate the relation between variables which are contingent and autonomous. The researcher classifies that in this study two models namely the statistical model and econometric model.

Regression Analysis

Regression analysis is known as a tool that used to decide which variables influence a subject of concern. This regression method would easily help researcher to decide which factors is matter the most and which factors that can be overlooked. It also helps to identify those factors affect each other.

Regression Model:

UNEMP = β_0 + β_1 GDP + β_2 INFR + β_3 FDI + μ
 Where,
 UNEMP = Unemployment Rate

GDP = Gross Domestic Product
 INFR = Inflation Rate
 FDI = Foreign Domestic Investment
 μ = Error that obtained from the data that collected
 β_0 = Intercept
 $\beta_1, \beta_2, \beta_3$ = Partial Coefficient to GDP, INFR and FDI

Based on this econometric model, the unemployment rate would be the dependent variable and the independent variables would be inflation rate, Gross Domestic Product (GDP) and Foreign Domestic Investment (FDI).

Unit Root Test

Unit root tests are stationarity checks in a time series. Time series with unit roots don't have an absolute and clear general awareness. And this causes mathematical analysis issues for the Economist Analytical. According to Yule (1926) the association of nonsense may be described as the association of two unrelated series either contributes to plus or less that. Augmented Dickey-Fuller (1981) unit root test will be used in determining and to check the stationarity of the variables. Model estimation can be proceeding once the stationarity of all variables has been identified and there is no variable in the list.

ADF unit root test can be described as follows in equation below:

$$y_t = \alpha y_{t-1} + x_t' \delta + \epsilon_t$$

that is $\alpha = \rho - 1$. When it enters lags of the order ρ in the equation, ADF formula will allowed a higher autoregressive process. When applying this test, the lag has to be determined. For the null and alternative hypothesis, it can be written as;

$$H_0: y = 1$$

$$H_1: y < 1$$

The null hypothesis of unit root will be tested against the alternative hypothesis in this research. The result of test statistic that is bigger than the critical value will make the null hypothesis should not be rejected when the unit root exists and it will show that the variables are non-stationary. For the alternative hypothesis, it should be rejected when the variable is stationary and time series doesn't represent unit root. The ADF unit root test hypothesis can be seen as below:

H₀: The variables contain unit root and it is known as non-stationary.

H₁: The variables do not contain unit root and it is known as stationary.

Co-integration Test

Co-integration test can detect the long term correlation between the two or more sets of variables in a test. This method in this test will be using the Johansen test. A Johansen test is in this study to test co-integrating correlation between time series data and several non-stationary time. This would allow for more than one co-integrating relationship. By using this test to identify co-integration of several time series will keep away from the issues that are created when the errors are carried forward to the next step.

Error Correction Model

Error Correction Model (ECM) is known as a time series regression model that is based on the behavioural assumption that there are two or more-time series reveal an equilibrium correlation that determines of both long and short-run behaviour. ECM also indicates the causality among the variables.

Residual Diagnostics

The analysis of residuals is one of the most essential role in confirming the regression model. Error term in the regression model

would satisfies the assumptions noted earlier and then the model will be considering valid. This test also known as a scatter plot of residuals on the y axis and fitted values on the x axis in order to identify outliers, unequal error and non-linearity.

Normality Test

A normality tests in research is used to determine if the sample data has been drawn from a normally distributed population. This study would use the Jarque-Bera test, which is to test a normality in this study. Normality also known as one of the assumptions for many statistical tests, like the F test or t test. Normally Jarque-Bera is usually run before one of these tests to confirm normality.

Serial Correlation Test

Serial Correlation test is used in this research to explain the correlation between observations of the same variable over certain periods. Whenever variable's serial collection is measured as zero, then it shows that it will be no relationship and each of the observations is independent with each other.

Heteroscedasticity

Heteroscedasticity is a gradual shift in the distribution of residuals across calculated quantities. Heteroscedasticity is a concern because regression of ordinary least squares (OLS) implies that all residuals are derived from a sample with a constant variance (homoscedasticity). Heteroscedasticity, also called heteroscedasticity, occurs most commonly in datasets with a wide spectrum from the highest to the smallest measured values. Although there are various explanations why there would be heteroscedasticity, a typical theory is that the magnitude of errors varies proportionally with a factor. In the model this element may be a vector.

Autocorrelation

Autocorrelation is the degree to which the values of the same variables correspond through different measurements of statistics. The principle of autocorrelation is most commonly explored in the form of time series records, in which measurements take place at various times. After that, in cross-sectional results, autocorrelation can also arise where the findings are in some other way linked. For example, in a survey, people from close geographic areas may be expected to give more similar responses to each other than people who are more remote from each other. This section would include the analysis if Breusch-Godfrey Serial Correlation LM test, Durbin-Watson Test, and Correlogram-Q-Statistics.

RESULTS ANALYSIS

Descriptive Statistic of Variables

Descriptive analysis used as a basic tool to describe and summarise the characteristics of the sample of a research by measuring

the central tendency and variability (spread). Descriptive analysis covers central tendency and the measures of variability. Central tendency consists of median, mode and mean that measures the variability that is the kurtosis and skewness, standard deviation and the maximum and minimum variables. (Mansor and Siew, 2016; Nazrul et. al., 2011).

- Mean is known as the average value of data that are gain by totalling up the series and divide it by the observations.
- Median is defined as the middle value and also as the average of the two middle values of the data when the values are in ordered from the smallest to the largest. Median also knowns as a robust measure of the centre of the distribution that is less sensitive to outliers than the mean.
- Standard deviation is known as a measure of the spread in the series.
- Skewness defined as the measure of asymmetry of the distribution of the series around its mean.
- Kurtosis can be defined as the measurement the flatness of the distribution of the series

Table 1: Descriptive Statistic of Variables

	Mean	Median	Maximum	Minimum	Std.Dev	Skewness	Kurtosis
UNEMP	3.38	3.40	3.50	3.30	0.076112	0.343622	1.846939
GDP	1.61	1.65	2.06	1.19	2.85	-0.070134	1.624499
INFR	1.21	1.21	1.22	1.19	0.86	-0.762502	3.199658
FDI	0.91	0.91	1.08	0.76	0.89	0.029035	1.952764

As shown in Table 1, the descriptive analysis of all the variables used in this study. The mean is normally distributed indicating the data used in this study is not a huge one. Compared to other independent variables, Gross Domestic Product shows a high standard deviation indicates data are more spread out.

Unit Root Test

Unit root tests are stationarity checks in a time series, said to be weak or covariance. If a time series does not induce a change in the shape of the distribution, a time series has stationarity; unit roots are one cause of non-stationarity.

Augmented Dickey-Fuller (ADF) Test

In this study, Augmented Dickey-Fuller (ADF), a unit root test that tests the null hypothesis that $\alpha=1$ in the following model equation. Alpha is the coefficient of the first lag on Y. The test conducted and the results are presented as below:

ADF unit root test can be described as follows in equation below:

$$y_t = \alpha y_{t-1} + x_t \delta + \epsilon_t$$

that is $\alpha = \rho - 1$. When it enters lags of the order ρ in the equation, ADF formula will allowed a higher autoregressive process. When applying this test, the lag has to be determined. For the null and alternative hypothesis, it can be written as;

$$H_0: y = 1$$

$$H_1: y < 1$$

Table 2: Unit root test

Variables	Level (Intercept & Trend)	First Difference (Intercept & Trend)
LUNEMP	-2.418190	0.1457
LINF	-2.167520	0.2216
LGDP	0.006112	0.9517
LFDI	-0.518267	0.8711

Given that the goal of this ADF test is to determine whether it is non-stationary series or stationary. The analysis above shows that all of the variables have a unit root. This is because of the t-statistics is higher than the critical values. If the time series has a unit root, that means it is non-stationary. It has some time dependent structure. Therefore, we accept the null hypothesis that is the variables contain unit root and it is known as non-stationary.

Error Correction Model

A general vector autoregressive model is similar to the AR(p) model except that each quantity is vector valued and matrices has been used as the coefficients by forming a

Vector Error Correction Model (VECM) by differencing the series. Author has conducted the Johansen Co-Integration Test.

Johansen Co-Integration Test

In this study, the Johansen Co-Integration Test is conducted to detect the long -term correlation between two or more variables. This study consists of three independent variables, inflation, Gross Domestic Product and Foreign Direct Investment. For the null and alternative hypothesis, it can be written as;

$$H_0: y = 1$$

$$H_1: y < 1$$

Table 3: Johansen co-integration

Hypothesized No. of CE (s)	None*	At most 1	At most 2
Trace Statistics	80.10067	32.70663	7.821521
Critical Value 0.05	29.79707	15.49471	3.841466
Probability	0.0000	0.0001	0.0052
Max-Eigen Value	47.39404	24.88511	7.821521
Critical Value 0.05	21.13162	14.26460	3.841466
Probability	0.0000	0.0008	0.0052

The result of the trace test showed that there's one co-integrated equation at 5 percent level of significance, where the trace statistic value is 80.10067 that is more than the critical value that is 29.79707 at 5 percent level of significant. This means that we reject the null hypothesis and accept the alternative hypothesis, and it shows there was a long run relationship that integrated the variables in the long run.

Based on the result of maximum eigenvalue test, it shows that the maximum eigenvalue that is 47.39404 more than 5 percent level 21.13162. This shows that it is statistically significant and there are co-integrations between the variables.

The result shows that it is confirmed that there are long run relationship between youth unemployment with Gross Domestic Product (GDP), inflation and Foreign Direct Investment (FDI). Based on normalization co-integration, it shows that GDP has a negative relationship with youth unemployment, and the inflation also has a negative relationship with youth unemployment. While the FDI shows that it has a positive relationship with youth unemployment. The Johansen co-integration test has acknowledged co-integrating factors, therefore, the vector is applied to establish the Vector Error Correction Model (VECM).

Vector Error Correction Model

In Johansen co-integration test, it shows that there was a long run relationship between the variables. Therefore, this VECM test need to be done to indicated short run relationship.

Based on the result of the VECM, the estimated VECM with youth unemployment as target variable:

The co-integrating equation and long run model is:

The negative sign of ECT shows that how fast the variables go to the equilibrium. The previous year’s deviation from long run equilibrium is corrected at a speed of -1.112911. a percentage changes in inflation is associated 2.177275 increase in youth unemployment on average ceteris paribus in short run. For the FDI, a percentage changes in FDI is associated 0.255369 increase in youth unemployment on average ceteris paribus in short run. Meanwhile for the GDP, a percentage changes in GDP is associated 0.289284 increase in youth unemployment on average ceteris paribus in short run.

Autocorrelation

“Autocorrelation is known as the degree of correlation between the values of

the same variables across different observations in the data” (Dormann, McPherson, Araújo and Bivand, 2007). In a regression analysis, autocorrelation in the regression residuals can also happened if the model is incorrectly specified. It also means the degree of similarity between the time series and a lagged version of itself over successive time intervals. Autocorrelation are used to measure the relationship between a variables current value and past values. Researcher of this study has conducted the Breusch – Godfrey Serial Correlation LM Test and Durbin-Watson Test to show if autocorrelation exist in the variables presented in this study.

The Durbin-Watson Test

The Durbin-Watson is known as a test for a first-order serial correlation. It can be also known as the DW statistic that estimates the linear association between the adjacent residuals from a regression model. The Durbin-Watson also known as a test of the hypothesis as presented in table below.

Table 4: Durbin-Watson Value

Durbin-Watson Value	
Statistics : 1.546504	1.546504 < 2

As stated in table 4, the Durbin-Watson statistic is 1.546504 which is below 2. As stated, the Durbin-Watson statistic will be around 2. If the Durbin-Watson statistic is below 2, there would be a positive serial correlation and in the worst case, it will be near zero. Whenever there is a negative relation sop, the statistic will lie in between the value 2 and 4. A positive serial correlation is the most common thing that have been observed form of dependence. The rule of thumb stated that with 50 or more observations and only a few independent variables, a Durbin-Watson statistic under about 1.5 is a strong sign of positive first order serial correlation that as shown in this study there is t a strong correlation exists between the variables. To further prove this, researcher conducted Breusch – Godfrey Serial Correlation LM Test.

Breusch – Godfrey Serial Correlation LM Test

The Breusch–Godfrey test known as a test for autocorrelation in the errors of a regression model. This test also used the residuals from the model being considered in a regression analysis and the test statistic is derived from these. The null hypothesis for this test is that there will be no serial correlation of any order up to p. The test is based on the idea of Lagrange multiplier testing and it would sometimes referred to as an LM test for serial correlation.

Table 5: Breusch – Godfrey Serial Correlation LM Test

Durbin-Watson Value	
Statistics : 2.040889	2.040889 > 2

As stated in table above, the Durbin-Watson statistic is 2.040889 which is above 2. As stated, the Durbin-Watson statistic will be around 2 which shows a negative autocorrelation as anything between 2 to 4 is considered as such.

Table 6: Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.908823	Prob. F(3,25)	0.4508
Obs*R-squared	2.950036	Prob. Chi-Square(3)	0.3994

As shown in table above, the test rejects the hypothesis of no serial correlation between the variables, as the F-statistic, 0.908823, is higher than $p=0.05$

Table 7: Correlogram-Q-statistics

Date: 09/12/20 Time: 16:42
 Sample: 2017M06 2019M11
 Included observations: 30

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.242	0.242	1.9417	0.163
		2 -0.078	-0.145	2.1488	0.341
		3 -0.191	-0.145	3.4392	0.329
		4 -0.267	-0.212	6.0736	0.194
		5 -0.019	0.071	6.0873	0.298
		6 0.085	0.008	6.3785	0.382
		7 -0.045	-0.151	6.4639	0.487
		8 -0.181	-0.212	7.9008	0.443
		9 -0.051	0.052	8.0178	0.532
		10 0.016	-0.012	8.0302	0.626
		11 0.157	0.064	9.2698	0.597
		12 0.174	0.024	10.883	0.539
		13 0.044	0.039	10.993	0.611
		14 -0.372	-0.409	19.297	0.154
		15 -0.217	-0.003	22.311	0.100
		16 -0.056	-0.058	22.529	0.127

As shown in table above, correlogram test is a tool that have been commonly used for checking randomness in a data set. If it shows a random, the autocorrelations should be near zero value for any and all time-lag separations. If it shows non-random, then it shows one or more of the autocorrelations will be significantly non-zero.

Though, a comparison test was done between Durbin-Watson and Breusch – Godfrey, researcher concludes that Durbin-Watson is much more suitable for this study as unemployment among youth is influenced by factors such as inflation rate, Gross Domestic Product and Foreign Direct Investments.

Regression Analysis

Regression analysis is a commonly statistical method that would make researcher to test the correlation between two or more variables of interest (Wagner, Soumerai, Zhang, and Ross-Degnan, 2002). Even though there are many types of regression analysis, at their core they all test the influence of one or more independent variables on a dependent variable.

Least Square Regression

The least squares method is known as a statistical method to find the best fit for a set of data points. In order to find the best fit, it would minimize the total of the offsets of points from the plotted curve. Least squares regression is used to predict the behaviour of dependent variables.

Table 8: Least Square Regression

Probability	Prob (F-statistic)	R-squared
0.05	0.00005	0.644133

As shown in table above, the linear relationship of between the dependent variables and independent variables, as the F-statistic, 0.00005, is higher than $p=0.05$. The R-squared, 0.644133 statistic estimates

the success of the regression in forecasting the values of the dependent variable within the sample. In the standard settings it can be interpreted as the fraction of the variance of the dependent variable influenced by the independent variables.

Residual Diagnostics

The analysis of residuals is one of the most essential role in confirming the regression model. The error term in the regression model would satisfies the assumptions noted earlier and then the model will be considering valid.

Heteroskedasticity

Heteroskedasticity occurs when the standard deviations of a predicted variable, monitored over a different values of an independent variable or also as related to prior time periods, are non-constant (White, 1980). Heteroscedasticity often occurs when there is a large difference among the sizes of the observations. It is also known as unequal scatter.

In this study, the Breusch-Pagan-Godfrey test is a Lagrange multiplier test of the null hypothesis of no heteroskedasticity against heteroskedasticity of the form, where is a vector of independent variables. Normally this vector involves the repressors from the original least squares' regression, but it is not necessary. This test is performed by researcher because to complete an auxiliary regression of the squared residuals from the original equation. The test would also quote an F-statistic for a redundant variable test for the joint significance of the variables in the regression.

Table 9: Heteroskedasticity Test
Heteroskedasticity Test: Breusch-Pagan-Godfrey

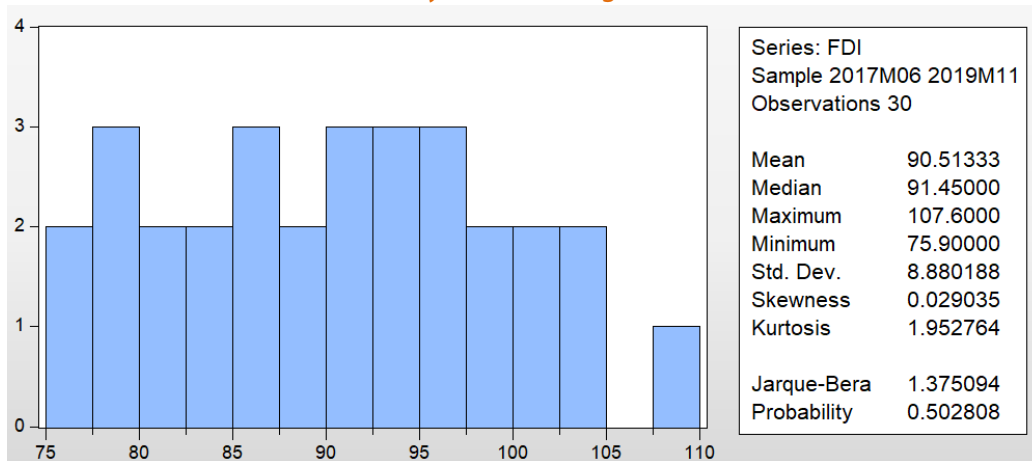
F-statistic	0.252903	Prob. F(3,26)	0.8585
Obs*R-squared	0.850613	Prob. Chi-Square(3)	0.8373
Scaled explained SS	0.238959	Prob. Chi-Square(3)	0.9711

As shown in table above, the test rejects the hypothesis of between the variables and heteroskedasticity exist between variable, as the F-statistic, 0.858539, is higher than $p=0.05$.

Normality Test

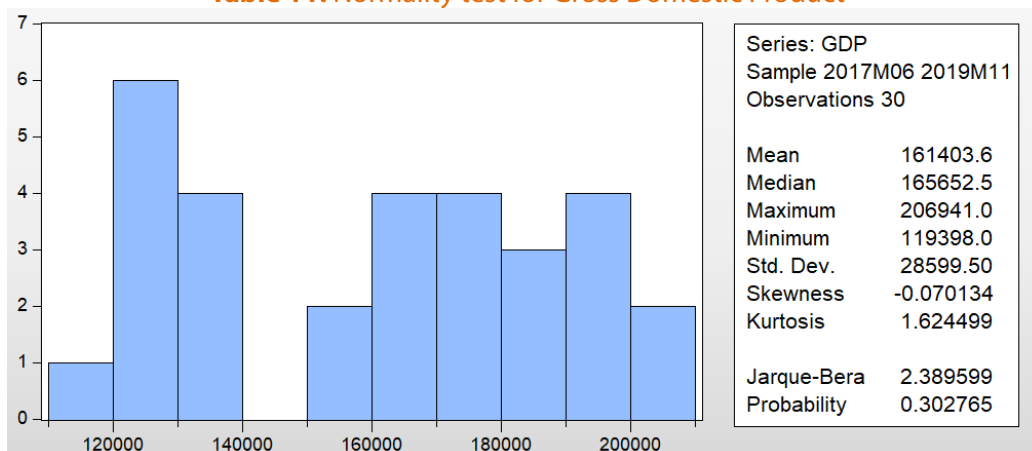
Normality test, in this study, comprises of Jarque-Bera, a test used to confirm whether the series is normally distributed. The results of Jarque-Bera will consist the difference of the skewness and kurtosis of the series with those from the normal distribution. The results of Jarque-Bera for the independent variables as below:

Table 10: Normality test for Foreign Direct Investment



According to table above, normality test conducted for Foreign Direct Investment, Jarque-Bera shows 1.375 which is more than 1, null hypothesis has been rejected at the 5% significance level, which means data does not come from a normal distribution.

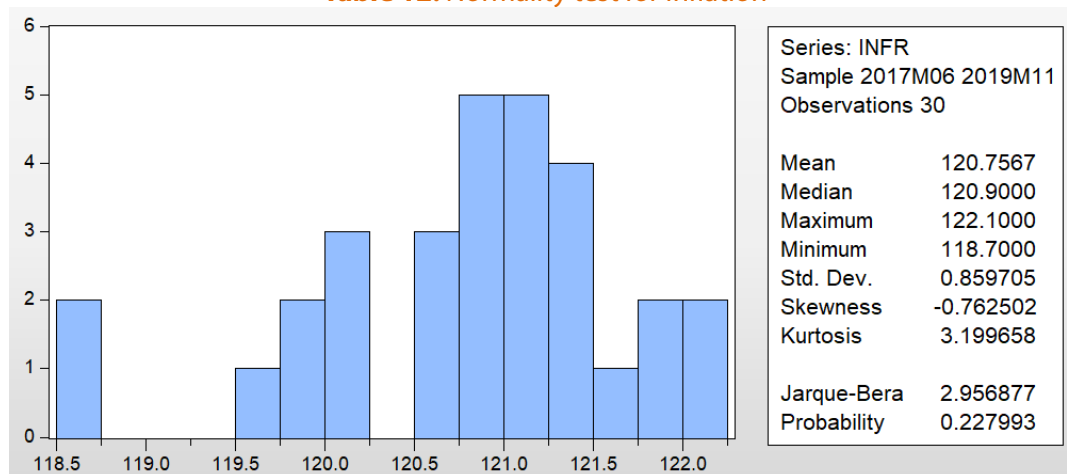
Table 11: Normality test for Gross Domestic Product



According to table above, normality test conducted for Gross Domestic Product, Jarque-Bera shows 2.389 which is more than

1, null hypothesis has been rejected at the 5% significance level, which means data does not come from a normal distribution.

Table 12: Normality test for Inflation



According to table above, normality test conducted for Inflation, Jarque-Bera shows 2.956877 which is more than 1, null hypothesis has been rejected at the 5% significance level, which means data does not come from a normal distribution.

The null hypothesis states that there is no relationship between the three variables being studied or one variable does not affect the other. Null hypothesis shows the results are due to chance and are not significant in terms of supporting the idea being investigated. The null hypothesis assumes that whatever that is to prove did not happen.

On an overall basis, it can be said that the test rejects the hypothesis of normality because the p-value is less than or equal to 0.05. Failing the normality test would allow you to state with 95% confidence the data does not fit the normal distribution. Passing the normality test only allows you to state no significant departure from normality was found

The alternative hypothesis states that the independent variable did give some effect the dependent variable, and the results are significant in terms of supporting the theory being investigated.

Hypothesis Testing

The level of statistical significance is often expressed as a *p*-value between the value 0 and 1. The smaller the *p*-value would be the stronger the evidence that researcher should reject the null hypothesis. In this study, the researcher has set three hypotheses which will discussed in detail at three section below that is 4.10.1, 4.10.2 and 4.10.3.

Hypothesis testing is done, where a test will be analysed an assumption regarding a population parameter (Shaffer, 1995). The methodology that have been applied by the analyst is depending on the nature of the data used and the reason for the analysis. Other than that, hypothesis testing is used to access the plausibility of a hypothesis by using sample data.

Hypothesis 1: Youth unemployment and Gross Domestic Product (GDP)

H0: The are no significant relationship between Youth Unemployment and the Gross Domestic Product (GDP).

H1: There are significant relationship between Youth Unemployment and the Gross Domestic Product (GDP).

Table 13 : Hypothesis 1

Dependent Variable: UNEMP
 Method: Least Squares
 Date: 09/12/20 Time: 15:52
 Sample: 2017M06 2019M11
 Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.721485	0.049985	74.45140	0.0000
GDP	-2.12E-06	3.05E-07	-6.934589	0.0000
R-squared	0.632008	Mean dependent var		3.380000
Adjusted R-squared	0.618865	S.D. dependent var		0.076112
S.E. of regression	0.046989	Akaike info criterion		-3.213471
Sum squared resid	0.061823	Schwarz criterion		-3.120058
Log likelihood	50.20207	Hannan-Quinn criter.		-3.183588
F-statistic	48.08853	Durbin-Watson stat		1.495623
Prob(F-statistic)	0.000000			

According to table 4.8.1, $p=0.00$ as p -value less than 0.05 (typically ≤ 0.05) is statistically significant. It indicates strong evidence against the null hypothesis, as there is less than a 5% probability the null is correct (and the results are random). Therefore, reject the null hypothesis, and accept the alternative hypothesis. So, the alternative hypothesis states, there are significant relationship between Youth Unemployment and the Gross Domestic Product (GDP).

4.10.2 Hypothesis 2: Youth Unemployment and Inflation Rate

H0: There are no significant relationship between Youth Unemployment and the Inflation Rate.

H1: There are significant relationship between Youth Unemployment and the Inflation Rate.

Table 14: Hypothesis 2

Dependent Variable: UNEMP
 Method: Least Squares
 Date: 09/12/20 Time: 15:56
 Sample: 2017M06 2019M11
 Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.442153	1.664237	5.673564	0.0000
INFR	-0.050201	0.013781	-3.642692	0.0011
R-squared	0.321528	Mean dependent var		3.380000
Adjusted R-squared	0.297297	S.D. dependent var		0.076112
S.E. of regression	0.063803	Akaike info criterion		-2.601690
Sum squared resid	0.113983	Schwarz criterion		-2.508277
Log likelihood	41.02536	Hannan-Quinn criter.		-2.571807
F-statistic	13.26920	Durbin-Watson stat		0.909108
Prob(F-statistic)	0.001086			

According to table 14, $p=0.0011$ as p -value less than 0.05 (typically ≤ 0.05) is statistically significant. It indicates strong evidence against the null hypothesis, as there is less than a 5% probability the null is correct (and the results are random). Therefore, reject the null hypothesis, and accept the alternative hypothesis. So, the alternative hypothesis states, there are significant relationship between Youth Unemployment and the Inflation Rate.

Hypothesis 3: Youth Unemployment and Foreign Direct Investment (FDI)

H0: There are no significant relationship between Youth Unemployment and the Foreign Direct Investment (FDI).

H1: There are significant relationship between Youth Unemployment and the Foreign Direct Investment (FDI).

Table 15: Hypothesis 3

Dependent Variable: UNEMP
 Method: Least Squares
 Date: 09/12/20 Time: 15:57
 Sample: 2017M06 2019M11
 Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.827549	0.103409	27.34345	0.0000
FDI	0.006104	0.001137	5.367197	0.0000
R-squared	0.507101	Mean dependent var		3.380000
Adjusted R-squared	0.489498	S.D. dependent var		0.076112
S.E. of regression	0.054382	Akaike info criterion		-2.921230
Sum squared resid	0.082807	Schwarz criterion		-2.827817
Log likelihood	45.81845	Hannan-Quinn criter.		-2.891346
F-statistic	28.80681	Durbin-Watson stat		1.332160
Prob(F-statistic)	0.000010			

According to table 15, $p=0.00$ as p -value less than 0.05 (typically ≤ 0.05) is statistically significant. It indicates strong evidence against the null hypothesis, as there is less than a 5% probability the null is correct (and the results are random). Therefore, reject the null hypothesis, and accept the alternative hypothesis. So, the alternative hypothesis states, there are significant relationship between Youth Unemployment and the Foreign Direct Investment (FDI).

This study attempts to provide an empirical analysis of the macroeconomics factor that is Gross Domestic Product (GDP), inflation, and Foreign Direct Investment (FDI) that affecting the youth unemployment in Malaysia. The empirical analysis consisted of Augmented Dickey-Fuller test, Johansen co-integration test and a simple regression between youth unemployment and the macroeconomic factors that have been chosen that is Gross Domestic Product (GDP), Foreign Direct Investment (FDI), and inflation.

RESULT AND DISCUSSION

Discussions on Relationship Between Youth Unemployment and Macroeconomic Factors (Gross Domestic Product, Foreign Direct Investment and inflation).

The results presented in this study showed that the data series are stationary in their differences. The test of co-integration also showed that it has a long run relationship between youth unemployment and the macroeconomic factors. More than that, the

results also showed that it supports youth unemployment and macroeconomic factors that is GDP, inflation and FDI are related.

Therefore, it shows that the Okun's law is valid in this findings because the empirical results show that the youth unemployment and GDP have a negative relationship. The Phillips Curve also valid in this findings that is the youth unemployment and inflation shows that it has a negative relationship. The positive relationship between youth unemployment and FDI also support the studies from Mpanju (2012) and from Mohd Shahidan Shaarir, Nor Ermawati and Mohd Suberi Ab. Halim.

Recommendations to Reduce Youth Unemployment

There are some ways to reduce youth unemployment from the impact of macroeconomic factors, and one of it would be the fiscal policy. Fiscal policy can reduce youth unemployment by increasing the rate of economic growth and aggregate demand. The government can pursue expansionary fiscal policy that will include in cutting some taxes and also increase the government spending.

A lower tax will increase the disposable income and can help to increase consumption that can lead to a higher aggregate demand. An increase in aggregate demand will make an increase in real GDP. It means that if the firms produce more, there will be some increase in demand for the workers and also will lower the demand deficient unemployment. In addition, a higher aggregate demand and also a stronger economic growth there will be a fewer firm that will go bankrupt, therefore there will be fewer job losses.

Other than that, the government need to take some action in reducing youth unemployment that have been affected by the macroeconomic factors. Government can publish some program such as the apprenticeship schemes. Apprenticeship

schemes is a cater to the young people between the ages of 16 to 24. The aim for this program is that to train a worker to become skilled in some particular work. It will combine hands on work with a classroom learning to train the apprentice. They would also consider as a full time employment, that is as they learning they also applying the lessons through working.

Apprenticeships schemes should be done in Malaysia since United Kingdom have been applying this program to the young people and more than 500,000 people have joined this program. Government in Malaysia can publish this kind of program because the GDP, FDI and inflation are the macroeconomic factors that are hard to predict in Malaysia, and sometimes when these factors are at their worst index, it would make the percentage of youth unemployment become worsen. By publishing apprenticeship schemes, it can help youth unemployed with new skill so that they can improve their incentives to find work.

Other than that, government also can develop the gig economy in Malaysia. They can link young people to freelance jobs by working online, by providing their transcription and development services among others. By putting their work online, it would become cheaper and more efficient for the young unemployed. According to Sam Gichuru, that is the co-founder of Kuhustle platform in Kenya, giving young people gadgets and internet connectivity will make them more creative and they will start to discover things that people never guessed.

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