

Youth Unemployment determinants in Developing Countries – Indonesian Evidence

Januar Achmad Fathoni¹, Obsatar Sinaga², Mohd Shahril Ahmad Razimi^{3*}

Abstract: *The Bureau of Labour Statistics explains that unemployment is people who do not have work to do and has actively looked for work during last month and also available to do work. Moreover, people who are laid off temporarily and are in a waiting list to be called back to work are considered unemployed. The people who do not look for work during the last month are not considered unemployed. Unemployment in Youth contributes significantly to total unemployment and it is more than 50% of the total unemployment. The youth of the society are most susceptible to these trends; these people are hired at the last when companies make new hiring due to their lack of experience, poor communication ability of the workers and higher level of information asymmetry in labour market are the reasons of unemployment. Therefore, unemployment's cyclical nature leads to the intervention of government in the economy which thus make reduction in unemployment during recessions.*

Keywords: *Youth unemployment, Developing countries, Indonesia.*

I. INTRODUCTION

Unemployment is a situation in which people do not have job who are actively finding the job during the last 4 weeks or one month and are available to do work explained by the Bureau of Labour Statistics. People are also considered unemployed who are laid off by the employer temporarily and are waiting to be called back. It does not include those people who are not looking for work during the past four weeks. Unemployment in Youth contributes significantly to total unemployment and it is more than 50% of the total unemployment. The youth of the society are most susceptible to these trends; these people are hired at the last when companies make new hiring due to their lack of experience, poor communication ability of the workers and higher level of information asymmetry in labour market are the reasons for unemployment. Therefore, unemployment's cyclical nature leads to the intervention of government in the economy which thus make reduction in unemployment during recessions.

This study conducted to investigate the problem occurs in the study and whether was a relationship between consumer price index, trade as a share of GDP, Real GDP, Urban population. Unemployment has significant importance in the macroeconomic issues of the country. A higher unemployment rate of the country not only has negative impact on the economic situation of the country but also hurts the social situation of the country. Therefore, unemployment represents people who are willing to work and are actively looking for work. The unemployment ratio is calculated by counting the total number of unemployed people then dividing those by the total population.

The government states the current Population Survey shows those people who want to work and those looked for work actively during the last four weeks and defines the people who are currently unemployed through a monthly Survey. Additionally, there are numerous reasons of unemployment such as those who left their exiting job and are looking for new job. Secondly, when there are lesser work in an organization then they lay off some people and those people are unemployed

¹ Widyatama University

² Padjadjaran University

³ Islamic Business School, Universiti Utara Malaysia

*corresponding author: shahril@uum.edu.my

until they are not hired again, previous company laid off and now these people are looking for a new position in other company. These happened because of the local condition when a company closes a division or plant or changes happened in the national condition when the economic condition is slow then the operations of many companies slows, and the companies make reduction in their workforce.

There is an opposite relationship between inflation and unemployment, which is easy to grasp. On the bases of fundamental supply and demand principles, the rate of inflation is lower when there is higher unemployment in society and vice versa. However, this relationship becomes more complex than it is shown at first glance and changes number of times during the past 45 years. As unemployment and inflation are two important economic variables that have significant impact on our society and lives, therefore it is important to understand the relationship between these two variables. An economist A.W Philip explains that there is inverse relationship between inflation and unemployment. Philips hypothesized that a high demand of labour when few workers are unemployed leads to the rapid increase in the wage rate. While, when there is lower demand of labour and unemployment rate is high then the workers are reluctant to accept lower wages than the exiting rate, resultantly the negative changes in the wage rate are very slow.

Okun's law of economics (defined by Arthur Melvin Okun, and proposed in 1962) is a relationship observed empirically among unemployment and the country's production losses. The "gap version states that for every 1% increase in the rate of unemployment, there would be a negative change in GDP by about 2% as compared to potential GDP. There is a dispute in the usefulness and stability of the law.

Thus, the absolute income hypothesis while keeping the other factors constant; when there is higher income of individual then it leads to the better health of an individual; then the number of evidences supported the hypothesis. Yet, according to some recent income hypothesis, distribution of income has a significant impact on the health of the individual and there would a bad impact on the health by the income distribution within society. An individual will have worse health if he is living in a society that has higher inequality of income. Some recent studies examine the association between mortality of population and income equality which supports the relative income hypothesis.

There is number of factors which explain the unemployment problem. The problem comes into existence by number of ways which causes problem to society. Therefore, when the issue of unemployment is not solved, it leads to the problem of more unemployment in graduates, society, nations and even leads to an increase in the overall unemployment rate of the country.

The significant overestimate of the increase in the cost of living results because of a variety of methodology problems that occur when the CPI is calculated. Furthermore, the factor of unemployment is increased based on the society's treatment with different problems and opportunities. When the workers are more choosy in finding their job, then the growth factor of the country shows leads to the lower private investment which falls down on the average 25% of the GDP during the pre-Asian financial crisis to an average of 10% GDP post-crisis. In addition, the problem comes from urban population. They are facing great challenges in generating job opportunities for their teeming population.

II. LITERATURE REVIEW

Prior studies analyzed the relationship of unemployment with number of variables such as consumer price index, Urban population, real GDP, share of trade in GDP in different time periods. This section of the study aims to discuss the relationship of unemployment with different variables such as real GDP, Urban Population, real GDP per capita and share of trade in GDP. All these variables affect the employment in some way and this study used Indonesian data for the period 1995 to 2014.

A Cobb-Douglas function of production and its estimates used by applying simple OLS technique and its results explains that the changes in these variables results in a change in unemployment.

2.1 Unemployment

To reflect this renewed interest, King and Watson's (1994) analyzed the presence of Philip Curve by using a macroeconomic data of post-war. This study found that there is an inverse relationship of unemployment when the short-run and long-run noise is eliminated from the data.

The finding of the study provided the support to the U.S. King, and Watson (1994) pointed out, the presence of the inverse relationship in unemployment could be detected in the long run and the short-run noises eliminated from the data. Jahoda (1979) and Warr (1987) theoretically explained why unemployment has negative impact on the well-being of an individual. Warr (1987) proposed that unemployment has a negative impact both physically and psychologically because people who are unemployed less likely to have positive feelings linked with working.

2.2 Consumer Price Index

The consumer price index (CPI) focus on analysing the price's weighted average on the consumer goods basket, such as medical care, transportation and food. The value is calculated by using the change in the price of each item in the basket of predetermined items by taking average of them.

Llaudes (2005) analyzed the Long-term Unemployment by using a Philips Curve in the determination of wages and prices. Theories of Labour market such as outsider- insider models predicted that these types of unemployment are less relevant in the process of wage formation than those who are employed newly. Researchers focus on the evidence of unemployment by using data from OECD countries. CPI is a statistic that is used frequently to identify deflation and inflation periods. Marshall (1887, p. 373) many years back analyzed when a new product entered the market; it usually has higher price when then is reduces with respect to time.

H1: There is no signification relationship between unemployment and consumer price index

2.3 Real GDP Per Capita

Okun's law explains that the thumb rule defines the relationship between the changes in the rate of unemployment and the DGP's (gross domestic product) growth rate. Okun explains that as the size of labour force is increasing thus the level of productivity is also increasing, the growth of real GDP, just to hold the unemployment rate; therefore, the economy must grow at a pace above its potential.

Therefore, higher rates of unemployment in minority neighborhoods and inner-city is due to the less availability of information and lesser employment opportunities. An increase in the rate of employment leads to the increase in purchase power of the people which resultantly increases the consumption and increases the aggregate demand of the products by increasing the inflation in the country.

H2: There is a signification relationship between unemployment and GDP per capita

2.4 Trade Share as GDP

Akanni (2007) attempted to examine the relationship between exports and their impact on the economic growth of the country by using an autoregressive (VAR) model. The study found that there is significant importance in both exports and economic growth for the country. Gemechu (2002) while using a method of error correction and co-integration in the regression analysis analyze and test the relationship between export and economic growth.

Rodrik (1996), states that with the openness of an economy, the government expenditures also increase, and it is required to minimize the risk of trade. Due to these reasons, the merchandising element of GDP going to reduce, so that merchandise trade relative to GDP is pulled down for this reason. The third hypothesis of the study is;

H3: There is a signification between unemployment and trade as share GDP

2.5 Urban Population

Oswald (1999), in his study focuses on the effect of unemployment. For instance, areas, where more people owned houses, have greater laws of planning and land development restrictions, discouraging start-up business, and have greater congestion related to owners commuting further than renters, increase the cost of doing job.

Sjaastad (1962) in his work, did a significant amount of empirical work on the determinants of individual migration. It is confirmed by many studies that earning differentials is the main motivation of migrants, though it is difficult to find otherwise. In this regard the best survey done in this research is of Yap (1977). Recently a study of Ahmadabab (Papola (1981, pp.82-83) reported informal sector workers who got their earnings doubled after immigration to the other city. Jovanic (1979) found that because the information held by the workers is imperfect related to how productive they can be in a specific position, they move from one work to another for finding an optimal match.

H4: There is no signification between unemployment and urban population.

III. METHODOLOGY AND DATA

A methodology of a study contains a guideline to solve a particular problem by using particular components such as methods, tasks, tools and techniques. It can also be defined as the analysis of the principles of methods, rules, and postulates employed by discipline, the systematic study of methods that are, can be or have been applied within a discipline and the study or description of methods. It can be adopted in this study to meet our research objectives will be discussed in this chapter.

This study focuses on the factors which affected and increased the unemployment rate in Indonesia. This study used five main variables which are dependent variables namely consumer price index (CPI), Trades per share of GDP (TR), Real GDP per capita (GR) and the ratio of Urban population. Time-series data is used in this study for the period from 1995 to 2014 (20 years). The data used in this study is obtained from National Statistics Department and Work Bank. Data used in this study provide supplement to the information.

In this study, the equation stating the dependent and independent variables for unemployment is expressed as a function of Real GDP per Capita (GR), Consumer price index (CPI), Urban Population (UB) and Trade as a share of GDP (TR). The following equation is used for examining the impact of economic growth, population and exchange rate on inflation. Error terms are included for analyzing the impact of other variables that are not present in the model.

$$LUN = f(LCPI + LTR + LGR + LUB)$$

Where,

UN = Unemployment

CPI = Consumer price index

TR = Trade as a share of GDP

GR = Real GDP per Capita

UB = Urban Population

3.1 Data Correlation

This study use regression, Pearson coefficient, F-Statistics, Coefficient of determination (R^2) and Durbin Watson among the independent and dependent variables in a more detailed way.

3.2 Descriptive Statistics and Pearson Correlation

Table 1: Descriptive Statistics

	Mean	Std. Deviation	N
Unemployment	2.5285	.09018	20
CPI	1.9967	.03056	20
RGDP	5.6148	.11933	20
TSGDP	2.2623	.06315	20
URBAN	7.3995	.04979	20

Table 1 above presents the descriptive statistics of data collected.

Table 2: Correlations

		unemployment	CPI	RGDP	TSGDP	URBAN
Pearson Correlation	Unemployment	1.000	.728	.839	-.488	.910
	CPI	.728	1.000	.584	-.326	.646
	RGDP	.839	.584	1.000	-.786	.987
	TSGDP	-.488	-.326	-.786	1.000	-.715
	URBAN	.910	.646	.987	-.715	1.000
Sig. (1-tailed)	Unemployment	.	.000	.000	.014	.000
	CPI	.000	.	.003	.080	.001
	RGDP	.000	.003	.	.000	.000
	TSGDP	.014	.080	.000	.	.000
	URBAN	.000	.001	.000	.000	.
N	Unemployment	20	20	20	20	20
	CPI	20	20	20	20	20
	RGDP	20	20	20	20	20
	TSGDP	20	20	20	20	20
	URBAN	20	20	20	20	20

Table 2 above shows the correlation matrix of data, which records absence of multi-collinearity problem.

IV. RESULTS

For F-test, this study test the results by using all the variables, the model test either the results are significant or not. F-test results of the study tests the relationship of all the variables to identify either the value of coefficient one at one time. The results of the this section are shown in Table 3.

Table 3: ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.149	4	.037	106.918	.000 ^a
	Residual	.005	15	.000		
	Total	.155	19			

a. Predictors: (Constant), URBAN, CPI, TSGDP, RGDP

b. Dependent Variable: unemployment

The ANOVA results of the study are shown in the above table explaining that the groups means are statistically different. The value of the significant is 0.0000 which is lower than 0.05 and thus there is not statistically difference in the mean of variables.

For analysing the presence of serial correlation in the error term this study use Durbin-Watson test. The figures of the Durbin-Watson explain the strength of the used model. Its measurement is made between the range of 1.5 to 2.5 which are usually good values, which measure a correct model. The results of the study are presented in Table 4 below.

Table 4: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.983 ^a	.966	.957	.01868	1.550

a. Predictors: (Constant), URBAN, CPI, TSGDP, RGDP

b. Dependent Variable: unemployment

The explanatory power of the regression equation is analysed by using the coefficient of determination (R^2). A square on the correlation coefficient shows how good a model of regression explains the change in the value of dependent variable. The estimated value of R is between 0 and 1. In the time of event the value of estimation is near to 0, explaining that there is little relationship between independent and dependent variables. In such way, any single adjustment in the required variable is authoritative responsibility and has a little clarification by the autonomous variables. Meanwhile, if the value of estimator R is close to 1, then it can be said that there is direct relationship between dependent and independent variables, which can say that an adjustment in the dependent variable is clarified through independent variable. Moreover, there is little chance that the relation is equal to 1, as it determines that all the adjustments in the dependent variable are clarified by the independent variables.

In this section, it can be seen that the results obtained from the questions of the study will determine the comparison of the mean score will indicate the factor that affects the unemployment in Indonesia. The table shows the mean score for all variables. From this table it can be stated that most respondents agree with the statements of factor of unemployment between consumer price index, trade share of GDP, Real GDP, and Urban population.

1.0 Conclusions

5.1 Summary of findings

Hypothesis	Results	Supported by
H1	There is no significant relationship between unemployment and consumer price index. ($0.118 > 0.05$)	Llaudes. R,(2005) and Marshall (1887, p, 373)

H2	There is a significant relationship between unemployment and GDP per capita. (-1.828<0.05)	Kitty Stewart (2005) Leopold Sogner (2000)
H3	There is a signification between unemployment and trade as share GDP. (-1.16<0.05)	Akanni(2007), Gemechu(2002), Rodrik (1996)
H4	There is no signification between unemployment and urban population. (5.820>0.05)	Oswald (1999), Sjaastad's (1962), Yap (1977), Ahmadabad Papola(1981,pp.82-83), Jovanic (1979)

V. RECOMMENDATION

In the light of outcomes from this study it is observed that there are few proposals which can connect the source of data that access to unemployment of the countries. To start with that we can utilize a bigger measure of information. The GDP per capita and trade as share GDP are major contributors that influence the unemployment. Besides that, the government and economist must always take a high attention to this serious situation, avoid the high unemployment. This may reduce the unemployment and help to increase the growth rate of the Indonesian economy.

Consumer price index, GDP per capita, Trade as share GDP and Urban population are four major economic indicators that are all interrelated. Each factor is important and this study examines the impact of consumer price index, GDP per capita, Trade as share GDP and urban population as share of total population on unemployment both in long term and in short term in case of unemployment in Indonesia.

It is found that when an unemployment is lagged by one year then the effect of inflation on unemployment become significant in the long-run, but the factor is insignificant in the short-run. There is no impact of Trade openness on unemployment in the long run.

In the short run the impact of GDP per capita on unemployment becomes significant and positive. The trade as share GDP is also significant in the long run but it has an inverse relation with unemployment. However, the GDP per capita and Trade as share GDP is significant to unemployment. Moreover, the consumer price index is insignificant in the short run and the relationship of the economic growth lagged by one year and unemployment has appeared to be negative. Last but not the least; the impact of urban population on unemployment has no significant impact in the long-run but has negative impact in the short run in Indonesia.

The result of this research indicates that there is no signification relationship between unemployment and consumer price index. (Supported by: Llaudes. R,(2005) and Marshall (1887, p, 373), which means that the consumer price index will not influence on unemployment. The study found that the consumer price index is not a major contributing factor as the variable gives no impact on unemployment. This is because Consumer Price Index (CPI) is a measure that examines weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care. It is calculated by taking price change for each item in the predetermined baskets of goods by averaging them. Therefore, the consumer price index is not a major factor which affect the unemployment.

Besides that, the researcher found that there is a significant relationship between unemployment and GDP per capita. The study found that the GDP per capita is a major contributor as a variable that gives the highest impact and relationship on unemployment. This is because a high GDP per capita will affect the unemployment rates in inner-city and minority neighbourhoods. The increase in employment will enhance the purchasing power of the people in the country and as result, consumption increases which leads to rise in aggregate demand and inflation in the country. They may also be socially isolated from employment outcomes. The way of how all these independent variables will be affecting our dependent variable is mostly depending on the unemployment condition of the country itself.

Moreover, the researcher also found that there is a significant relationship between unemployment and trade as share GDP (Supported by Akanni (2007), Gemechu(2002). The study has found that the Trade as share GDP is also a major contributor as a variable that gives the highest impact and relationship on unemployment. This is because the between Trade as share GDP and unemployment by using cross section and panel data for the high-quality OECD countries respectively. This is because the low Trade as share GDP it affects the high unemployment. This is the reasons that indicate between Trade as share GDP and unemployment of the relative importance of international trade in the economy of a country. The high unemployment, At the same time lowers the Trade as share GDP and both the value of imports and exports over a period by the gross domestic product for the same period is decreased.

Lastly, it is found that there is no significant relationship between unemployment and urban population (Supported by Oswald (1999), Sjaastad's (1962), Yap (1977), Ahmadabab (Papola (1981, pp.82-83) and Jovanic (1979) in which the urban population will not influence the unemployment. The study found that the urban population is not a major contributor as the variable gives the low impact and relationship on unemployment. This is because areas with high home ownership rates have greater planning laws and restrictions on land development, discourage business start-ups, and have greater congestion owing to owners commuting further than renters, increasing the cost of having a job.

Lesson learned from the developed countries like European union and the US explains that the problem of unemployment is structural than cyclical, and the expansionary monetary and fiscal policies cannot cure the unemployment. Government should ensure that a new foreign investment in a country should use techniques of production which are suitable to the labour and skilled workers present in the country. The analysis done in this study used an Indonesian data for achieving the full potential where the economy can achieve a growth rate of 8% per annum but the current growth rate of the country is less than 8%. A careful planning is required and there is need to do continuous effort for achieving the target rate of growth. It has been observed that country has achieved a double-digit economic growth prior the 1997 Asian financial crisis, and there is no doubt that a country can repeat the history by making a concerted efforts from the nation as a whole.

VI. REFERENCES

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