DETERMINANTS OF UNEMPLOYMENT IN PAKISTAN

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Abstract
This study has been conducted to analyze the determinants of unemployment in Pakistan economy for the period of 1981-2016 using Simple Linear Regression Model. Population growth, Inflation, government expenditures and FDI is used as explanatory variables. Our main finding includes that population growth stimulate unemployment positively and inflation, government expenditure and FDI has negative impact on unemployment. This study recommend that government control population growth, government attempt to provide suitable policies for foreign investors.

Introduction
In the recent times, there are three main problems generally faced by the developing and the under developed countries i.e. inflation or depression/soothing economic instabilities, improving fairness in income, inadequate economic growth and prosperity. The main cause of unemployment is the income instability, inadequate economic growth and poverty. It has been the most constant problem which is facing by all industrially advance as well as poor countries. Unemployment is defined as the condition of having no job or being out of work or proportion of people which are able to work and actively searching jobs but they are unable to find it. Like many other developing countries, due to lack of absorption capacity, unemployment has been one of the major problems. The high unemployment rate in South Asian countries is one of the most important issues that distinguish them from those of the developed countries. The excessive rate of unemployment negatively impacts on economy which causes unstable economic conditions. This is troublesome because when workers are unemployed, there is an under-utilization of resources. So the total production of a country is less than its potential level of output because resources are not fully utilized in these countries. International Labor Organization (2001) defines unemployment as situation of being out of work or need a job and continuously searching for it in the last four week or unemployed ( age 16 or above) but available to join work in the next two weeks. People who voluntarily do not want to work, full time students, retired people and children are no included in unemployed category.

The on determinants of unemployment show that there are internal and external factors that determine unemployment. The internal forces are labour market fundamentals affecting labour supply and demand. These include workers and trade unions preferences, bargaining powers, firms, technology and market power. The external forces are macroeconomic policies and institutional changes related to fiscal and monetary policies and goods market. A number of the studies have been conducted so far to access the determinants of unemployment. These studies have not incorporated key macroeconomic variables in model that may be responsible for change in unemployment. So it is important to identify the variables that are responsible for unemployment. This study incorporate population, gross domestic product, private investment, foreign direct investment, and external debt as determinants of unemployment and extend the time span of analysis using dataset from 1981 to 2016.

Literature Review
To understand the determinants of unemployment, a short review of authors will be carried out. Ashipala and Eita (2010) examined the determinants of unemployment in Namibia from 1971 to 2007. They applied the Engel-Granger two-step econometric approach and found that the results were consistent with the Okun’s law and the Harrod-Domar. This shows that changes in Gross Domestic Product (GDP) influence changes in unemployment. Some studies have examined the causes of unemployment. Bakare (2011) found that demand for labour, supply of labour, population, inflation, capacity utilization, gross capital formation, wage rate, and private domestic investment are major determinants of urban unemployment in Nigeria from 1978 to 2008. Maqbool et al. (2013) also found something similar. They showed that GDP, population, inflation and foreign direct investment are significant determinants of unemployment in Pakistan in both the short-run and long-run analysis from 1976 to 2012. Marika Karanassou.et.al (2007) analyzed labor market dynamically to find relationship between capital stock and unemployment. They used indirect transmission channels of the effects of capital stock for estimating single equation unemployment model. The major variables they used were interest rates and investment ratios. They introduced different
approaches especially by direct estimation of the model of “Employment theory of Chain response” for the effects of capital stock on labor market. They concluded that capital stock is the key determinant of unemployment. 

Aleksander et al. (2009) examined the long run relationships among money supply, interest rate and unemployment. Their results show that these variables are positively related at low frequencies. They developed such a framework where money and unemployment were modeled by using micro details based on “search and bargaining theory”. As people hold a sizable amount in unemployment so the use of monetary theory can be on basis of search and bargaining or may an alternative ad hoc plan.

Mahmood et al. (2011) determined the factors involved in unemployment rate of Peshawar, Pakistan. The study was based on 442 individuals. The final model concludes that more important determinants of unemployment is high growth of population, lack of resources, non-coordination between education and job opportunity, red ribbon and role of attitude in getting high level jobs.

Auerbach and Gorodnichenko (2012) also studied the relationship between government expenditure and unemployment in Nigeria. By applying error correction modeling technique, they found a significant relationship which means an increase in government purchases leads to a fall in unemployment rate. Though a lot of work has been done on relationship between unemployment and other set of macroeconomic variables but less attention is paid to determinants of unemployment i.e. what are the major determinants of unemployment? This paper proceeds to employ simple econometrics technique of Regression analysis for analyzing determinants of unemployment based on evidence from Pakistan economy.

There are also studies on the effect of government expenditure on unemployment. Nwosa (2014) examined the impact of government purchases on unemployment and poverty rates in Nigeria from 1981 to 2011. By using the OLS method, he found that government expenditure has positive and significant impact on unemployment rate while it has a negative and significant impact on poverty rate.

**Research Methodology**

This study used the OLS method for analysis of determinants of unemployment in Pakistan economy. The following regression model is developed:

\[
UEM = \beta_0 + \beta_1 Pop + \beta_2 FDI + \beta_3 Inf + \beta_4 GovExp + \mu \ldots (1)
\]

**A priori expectations**

This illustrates whether the independent variables conform to hypothesize of economic theory. According to economic theory, government expenditure and FDI have a negative relationship with unemployment rate. Population has a positive relationship with unemployment rate.

The data are secondary time series data from 1981 to 2016 obtained from the economic survey of Pakistan (various issues). Model 1 is analyzing by using OLS method.

**Empirical Results**

The result of unit root test shows that inflation is stationary at level, while other variables including the dependent variable are stationary at first difference. As a result, the conditions for cointegration are not met. The estimated result is shown below.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>t-values</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>6.2487</td>
<td>2.1534</td>
<td>0.0001</td>
</tr>
<tr>
<td>FDI</td>
<td>-0.0815</td>
<td>-2.0243</td>
<td>0.0400</td>
</tr>
<tr>
<td>Inflation</td>
<td>-0.1607</td>
<td>1.975</td>
<td>0.050</td>
</tr>
<tr>
<td>Govt Exp</td>
<td>-0.2044</td>
<td>-2.6422</td>
<td>0.031</td>
</tr>
<tr>
<td>Constant</td>
<td>6.6437</td>
<td>-2.9114</td>
<td>0.0006</td>
</tr>
</tbody>
</table>

Table: 1 present Determinants of Unemployment
Table 1 indicates results of OLS regression. The value of R-square is 0.9103 that shows that 91% variation in the dependent variable is due to the independent variables. The value of F statistic is also significant at 5% level of significance, which shows the model is good fit as a whole. The Durbin-Watson statistic of 2.14 shows there is no serial correlation of the first order. Results show that Population has significantly positive impact on unemployment in Pakistan during the study period. The coefficient shows that a one percent increase in population will lead unemployment to increase by 6.2487%. Population of Pakistan is annually growing by 1.923%.

Foreign direct investment has significant and negative effect on unemployment. The coefficient shows that a 1% increase in FDI will cause unemployment to decrease by 0.0815%. The coefficient is statistically significant and it confirm with the a priori expectation.

Inflation has statistically significant and negative relationship with unemployment rate in Pakistan. This is similar to the Phillips hypothesis that an inverse relationship exists between inflation and unemployment. The result shows that a 1% increase in inflation rate will reduce unemployment by 0.1607%.

Similarly, Government expenditure has significantly negative relationship with unemployment. A percent increase in government expenditure will cause unemployment rate to decrease by 0.2044%.

Conclusion and Recommendations:
Unemployment is one of the main globalized problems especially in some advanced countries. It has been very steady problem and remains difficult to control in many countries. Unemployment can be examined from various aspects but this study stresses on the determinants of unemployment. Our finding shows that foreign direct investment, inflation and government expenditures are the variables that are statistically significant relationship with unemployment. Foreign direct investment, government expenditures and inflation showed negative relationship with unemployment while population showed positive impact on unemployment. To defence and retrieve unemployment from increasing, it is important to take instant remedial measures so that economy of Pakistan could survive this reprehensible blight. The final recommendations of the paper are:

- To do operation against black marketers who stock the commodities and then sale with high rates, which is the main cause of inflation in Pakistan.
- All possible steps are needed to capture investor from abroad because FDI plays very vital role in decreasing unemployment. Government should try attracting foreign investor.

References
Aleksander Berentsen, Guido Menzio, and Randall Wright,(2009) “Inflation and Unemployment in the Long Run”.
http://www.jstor.org/stable/2677852

Accessed Date:


