Effect of Unemployment and Inflation on Economic Growth of India

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Abstract:-

Unemployment and inflation are very critical problems that pose threats to every country's economy. This Research plan evaluates the rate of lack of unemployment and inflation in the Indian economy in seven years, which is determine the trade-off between inflation and unemployment. The study also explains the concept of the Phillips curve. The paper used secondary data for the period from 2014 to 2020. Therefore data were sourced from World Bank and International Labour Organization (ILO) and also from the internet. The simple average method, percentage method, and trend line are used in this paper. The result shows that there is no existence of the Phillips curve in the Indian economy, every period unemployment, and inflation are not inversely related to each other, and the relationship is insignificant in the Indian economy.

Keywords:- Unemployment, Inflation, Short-run Phillips curve

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Introduction:-

Unemployment and Inflation are very huge economic problem that impacts the life of a common man as well as the entire growth of the economy. Price stability, High productivity, Better infrastructure, and high employment are the most desirable macroeconomic goals, which every country desires. In this regard in 1960, the concept of the Phillips curve emerged by A.W. Phillips, who is the pioneer of the Phillips curve in the UK. The curve suggests the negative relationship between unemployment and inflation. Two studies provided a Proper explanation of the Phillips curve; the first one is, that in the short run, there is a significant tradeoff between unemployment and inflation. Second, in the long run, there is no considerable tradeoff between unemployment and inflation. Many economists agree with these studies but there have been also seen the short-run tradeoff between unemployment and inflation in different nations in different periods in many studies.

The term **Unemployment** refers to a situation in which the person is eligible of working both physically and mentally at the existing wage rate, but is unable to get a good job to work to earn money. In other words, a person which is jobless, searching for a job, full of capabilities, and whose working age is (16 to above) is called an unemployed person.

Problems of unemployment in India:-

There are many problems faced by Indian economies like inefficient industrial location, low production in the agriculture sector, heavy labor force, shortage of effective labor skills, and excessive burden on cultivation.

Inflation measures the average price change in goods and services over some time. The percentage change in the value of the wholesale price index (WPA) on a year-on-year basis. In other words, the decline of purchasing power of a given currency over time and also increasing the living cost of a country is known as inflation.

Problems of Inflation in India:-

There are also many problems of inflation some of these are: inflationary gap, blurred price signals, excess imports, unintended redistribution of purchasing power, and difficulties in long-run planning.

Objectives of the study:-

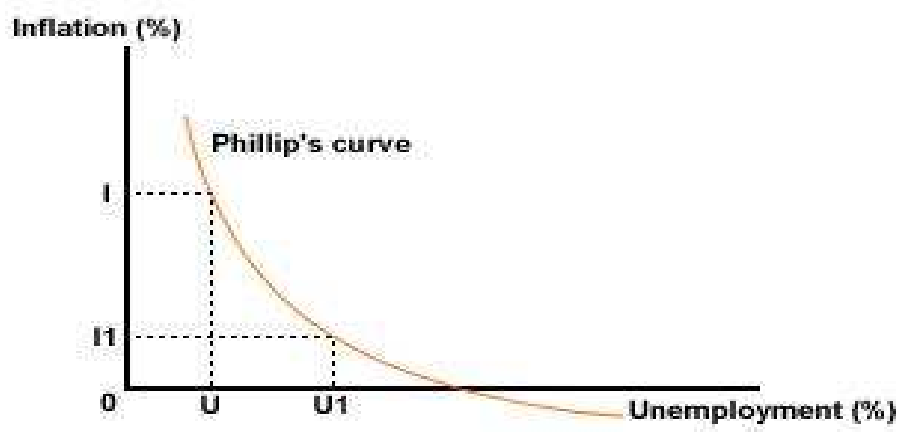
- To study the trends in unemployment and inflation in the Indian Economy.
- To examine the effect of unemployment and inflation in the Indian economy – Phillips curve approach.

Methodology:-

This study used secondary data from 2015 to 2021. The data is collected from the Ministry of Labor and unemployment for unemployment rate and the Reserve Bank of India (RBI) statistical bulletin. In this study, the simple average percentage method and trend lines were used.

Literature Review:-

The *Phillips curve* is a single-equation economic model given by *William Phillips, who* wrote a paper in 1958, ' *The Relation between Unemployment and the Rate of change of Money Wage Rates in the United Kingdom, 1861-1957'*. In this paper, he describes that there is an inverse relationship between rates of unemployment and the money wage changes in the economy. Stated simply, the higher rates of wage rise is correlate with increased levels of employment, (i.e., decreased unemployment). Milton Friedman and Edmund Phelps put the theoretical structure of the Phillips curve and in 1960, Paul Samuelson and Robert Solow also made the connection explicit the link between unemployment and inflation: when unemployment was high, inflation was low, and Vice- versa. In so doing, an imminent collapse of Phillips's a-theoretic correlation is predicted by Friedman. While the tradeoff between unemployment and inflation has not been observed in the long run. In 1967 or 1968, Phelps and Friedman asserted that in long run, inflationary policies would not decrease unemployment and the Phillips curve was



only applicable in the short run, in the long run, it is not applicable.

Since 1974, Milton Friedman, Thomas Sargent, Edmund Phelps, Edward Prescott, Christopher Sims, Robert A. Mundell, Robert E. Lucas, and F.A. Hayek was receiving the Nobel Prizes for work on critical of some variations of the Phillips curve. Nonetheless, for understanding and forecasting inflation, the Phillips curve remains the primary framework used in central banks.

Solow examined the relationship between inflation and unemployment in the context of the United States in 1970. The outcomes led to the conclusion that there is an inverse relationship between unemployment and the inflation rate in the United States. Gordon (1976), also confirmed the inverse relationship between these two variables using U.S. macroeconomics data.

In 2010, Karanassou and Sala argued that because of money and productivity growth which leads to an increase in employment and a decrease in inflation, and also the supply shock which leads to a decrease in employment, there is a tradeoff between inflation and unemployment in long run. Afzal and Awais, in 2012, also investigate the tradeoff between Unemployment-Inflation in Pakistan. The results of the study show that the Phillips curve exists in Pakistan. Similarly, Singh and Verma also estimated the short-run tradeoff between unemployment and inflation by using the bi-variate regression method in the Indian economy over the period 2009 to 2015. Their result showed that there is an inverse relationship between inflation and unemployment in the short run in the Indian economy. Katria et al. (2011) Sukkur Institute of Business Administration, from the perspective of the Phillips curve, Sukkur aimed to identify the relationship between inflation and unemployment in SAARC countries. Unbalanced panel data of 6 expected members of SAARC (Russia, Iran, Republic of China, South Africa, Indonesia, and Myanmar) and 8 SAARC members (India, Bangladesh, Bhutan, Afghanistan, Nepal, Pakistan, Maldives, and Sri Lanka) had been used for the period 1980-2010. This paper found that there is a significant relationship between inflation and unemployment in SAARC countries. The Phillips curve holds a true concept for these countries.

In 1968, Friedman criticized the Phillips curve and claimed that Phillips had made some mistakes, some of which are (1). He ignored permanent and temporary trade-offs between inflation and unemployment. (2). He did not explain expected inflation. (3). He failed to differentiate between real wage rate and nominal wage rate. According to Friedman, there is only one long run, i.e. natural rate of unemployment which is relevant to any perceived rate of inflation. And also, according to Lucas, and Sergert , there is no tradeoff between inflation and unemployment and person behave rationally and act according to current government policies.

Result and discussion

Inflation rate in India

In India, usually, the Inflation rate is quoted as the changes in the wholesale price index (WPI), but in April 2014, the consumer price index (CPI) is declared the new standers for measuring Inflation in India. To examine the result and discussion of this study firstly, we have to discuss the Inflation rate in India from 2014 to 2020, the table and trend line is given below:-

Table 1: Inflation rate of India in percentage during 2014-2020

Years	Inflation rate (%)
2014	6.65
2015	4.91
2016	4.95
2017	3.33
2018	3.95
2019	3.72
2020	6.62

Source: World Bank

From figure 1, it has been seen that the Inflation rate in 2014 higher level indicates 6.65 percent till 2020, while in the year 2017 the inflation rate is a very low point of 3.33 percent. Since 2014 the Inflation rate is decreasing every year till 2020. Due to the Coronavirus pandemic in 2020, the Inflation rate rose sharply as seen in the figure:-

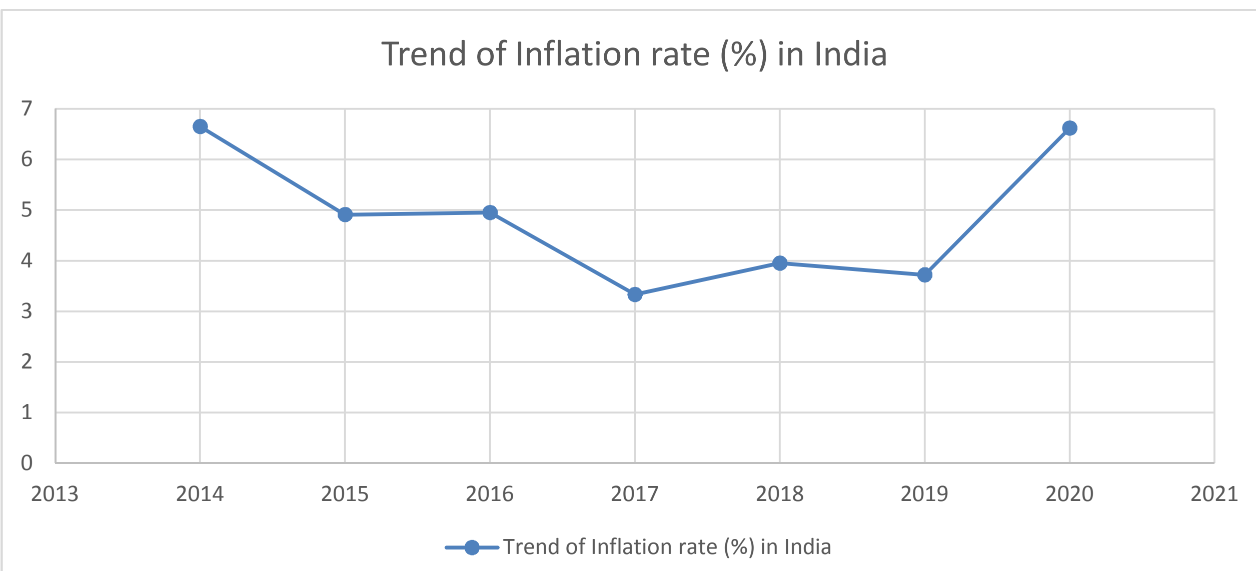


Figure 1: Inflation rate (%) in India

The unemployment rate in India

The coronavirus pandemic also affects the Unemployment rate of the Indian economy. To examine the result and discussion of this study firstly we have discussed the Unemployment rate in India from 2014 to 2020, the table and trend line as given below:-

Table 2: An unemployment rate of India in percentage during 2014-2020

Years	Unemployment rate (%)
2014	5.6
2015	5.56
2016	5.51
2017	5.51
2018	5.33
2019	5.27
2020	7.11

Source: International Labour Organization (ILO)

From figure 2, it has been seen that the Unemployment rate in 2014 is higher level 5.6 percent by 2020. The Unemployment rate is very low in the year 2019 (5.27%). After 2019, the Unemployment rate rose sharply in 2020 (7.11%), because of the lockdown due to the Corona virus pandemic. These trends show in the figure:-

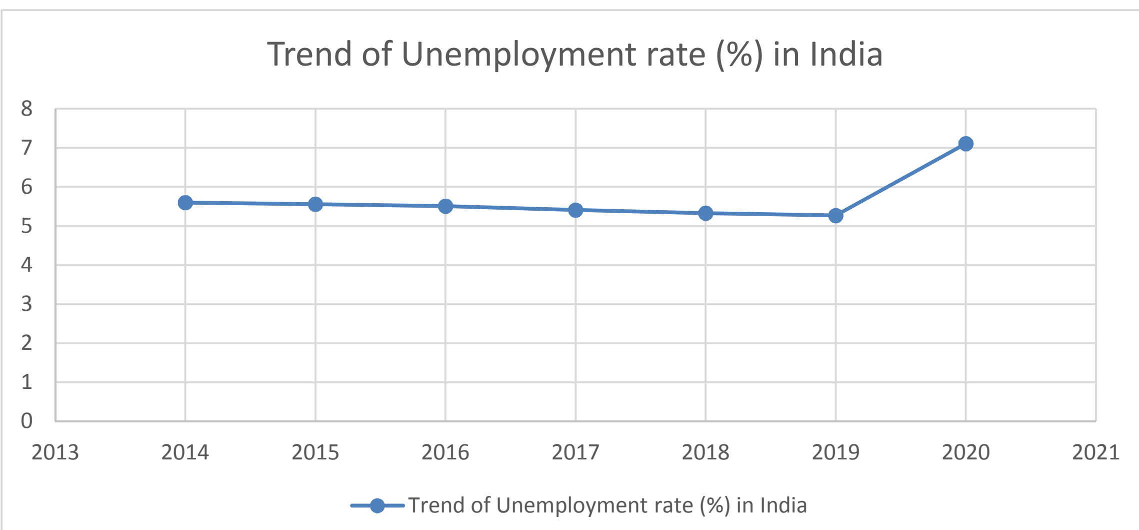


Figure 2: Unemployment rate (%) in India

The trade-off between Unemployment and Inflation in the Indian Economy from 2014 to 2020

The Phillips curve shows that there is an inverse relationship between inflation and unemployment; a fall in inflation increases unemployment and a fall in unemployment increase inflation. The following diagram and table express the deviation or change in unemployment and inflation:-

Table 3: Relationship between inflation—unemployment in India

Years	Annual Change in unemployment (%)	Annual change in Inflation(%)
2014	-0.04	-1.74
2015	-0.05	0.04
2016	-0.1	-1.62
2017	-0.08	0.62
2018	-0.06	-0.23
2019	1.84	2.9

Source: Computed by Author

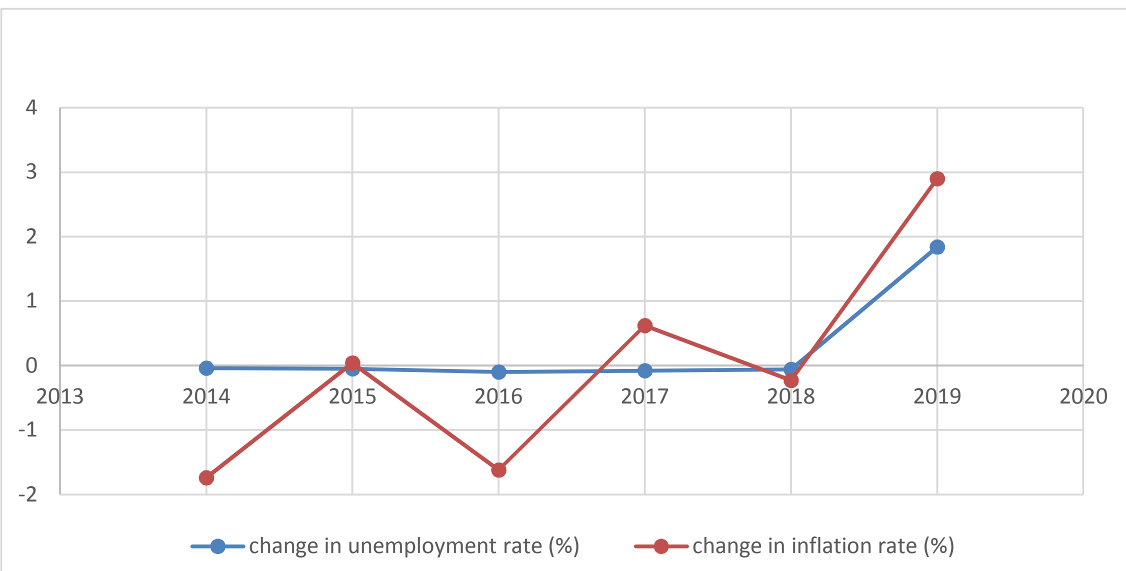


Figure 3: Relationship between Unemployment and Inflation in India

Findings

Figure 3 illustrates the difference between Inflation and Unemployment in India from 2014 to 2020. In 2014 the change in the unemployment rate and inflation rate has increased while in 2015 the unemployment rate increased in a minor way and the inflation rate decreased. Again in 2016, both increased. While in 2017, the unemployment rate grow at a low rate but inflation declined. After that in 2018, both increased, and from 2019 both increased rapidly. According to the data observed from this study, the Phillips curve does not exist in the Indian economy. Therefore the study concluded that there is no connection between the Inflation and Unemployment rate in the short run in India. Many early studies also state that the tradeoff does not exist in developing countries, this research study also supports these early studies.

Policy Implication

- The economy follows the constant capital-labor ratio.
- To develop advanced technology to generate more reliable employment and also increase the wage rate.
- To active improving skill training programs and events, which help to improve the employment rate.
- Imposing reliable and relevant taxes.
- Improve the Infrastructure, speciously Electricity which is also helpful to generate employment.
- Improving the digital Infrastructure.
- Improve and encourage the MSME sectors, so that the problem of unemployment will be decreased.

Conclusion:-

Therefore there is no trade-off between unemployment and inflation in the short run in India clearly shown in this study. High Inflation and unemployment results in several threats to any country's economy, and this study also show that high unemployment is statistically sufficient when it comes to Inflation. Many economists show that unemployment may risk more inflation but many economists challenge the tradeoff argument and show that it only works in the short run (Milton Friedman). Therefore to deal with Inflation and unemployment there needs to be strong co-partnership among various organizations and ministries in India.

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Declaration of Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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