



## Investigating the Effect of Governance on Unemployment in Selected OPEC member Countries

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### Abstract

Reduction of unemployment as one of the key indicators of economic evaluation of countries has always been the focus of attention of economists and politicians of countries. In recent decades and with the expansion of the new institutionalism approach, good governance and its components have been considered as one of the important factors affecting the development strategy of countries and unemployment control. Therefore, the main goal of this study is to investigate the effect of good governance on unemployment in selected oil exporting countries. In this regard; The effect of good governance indicators on unemployment in selected OPEC member countries was investigated by using the Fully Modified Ordinary Least Squares method. The data used in this research are annual data extracted from reliable scientific organizations and databases for the period from 2002 to 2021. Considering the strong correlation between good governance indicators and in order to prevent problems caused by multiple collinearity, by using the principal component analysis method, the main governance components were extracted and the first principal component was included in the model as a proxy for different dimensions of governance. The results of the estimation of the model showed that the first main component of governance has a negative and significant effect on unemployment in this group of countries, which means that improving the governance situation can provide the basis for reducing unemployment in OPEC member countries. Also, the interest rate, as one of the macro variables affecting unemployment entered in the model, has a positive and significant effect on unemployment.

**Keywords:** Macroeconomics, Unemployment, Fully Modified Ordinary Least Square, Good governance, Principal Component Analysis.

**JEL Classification:** C23, M48, E24, H11, J64.

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## 1. Introduction

Unemployment has emerged as a significant socio-economic issue in recent years, particularly in developing countries. Extensive research has shown that the governance components play a crucial role in influencing unemployment rates. Therefore, it is imperative to consider the institutional structure and governance environment when examining unemployment, as disregarding these factors can lead to misleading conclusions. In the case of OPEC member countries, the presence of substantial oil revenues has created an environment conducive to corruption, highlighting the weak governance prevalent in this group of nations. Additionally, OPEC countries have experienced higher unemployment rates compared to the global average. Consequently, it becomes essential to explore the impact of governance components on unemployment within the context of OPEC countries.

## 2. Theoretical Framework

Based on the findings of various studies, it has been established that good governance has a significant impact on the unemployment rate through six key indicators:

1. **Political Stability and Absence of Violence:** In situations where there is stability and predictability in the economic landscape, both foreign and domestic investments tend to decline, resulting in reduced economic growth and ultimately leading to an increase in unemployment within the society.

2. **Regulatory Quality Index:** The presence of appropriate regulations within a society tends to foster the growth of the private sector, thereby enhancing productivity and subsequently lowering the unemployment rate.

3. **Rule of Law Index:** The existence of a fair and efficient judicial system to oversee legal matters within a society contributes to an improved business environment, consequently leading to a decrease in the unemployment rate.

4. **Voice and Accountability:** Active participation of individuals in social and political spheres aids in the identification and utilization of individual talents within the society, thereby contributing to a reduction in the unemployment rate.

5. **Government Effectiveness:** Enhanced government effectiveness plays a role in lowering the unemployment rate by reducing transaction costs, enhancing the productivity of production factors, and ensuring optimal efficiency for businesses.

6. **Control of Corruption:** Efforts to control corruption have a multifaceted impact on the unemployment rate, including increased transaction costs, improved productivity of production factors, heightened income inequality, and influences on foreign direct investment.

## 3. Methodology

The primary objective of this research is to examine the influence of governance components on unemployment in a specific group of oil-exporting countries (Angola, Algeria, Congo, Ecuador, United Arab Emirates, Iran, Iraq, Kuwait,

Libya, Saudi Arabia, and Qatar) from 2002 to 2021. To achieve this objective, the Principal Component Analysis (PCA) was employed to identify the key governance components, and the Fully Modified Ordinary Least Square (FMOLS) method was used to estimate the model. Given the potential strong correlation among governance components, including all governance indicators simultaneously in the model could result in collinearity issues. To address this problem, PCA was utilized to eliminate the collinearity concern. Consequently, the first principal component, derived from the PCA, was included in the model as a weighted average of all governance dimensions. Additionally, a vector of macroeconomic variables, such as interest rate, price change index, and labor force productivity index, was incorporated as control variables to account for their impact on unemployment. The analysis was conducted using E-Views 12 and Stata 17 software.

#### 4. Findings

Based on the model estimation results using the FMOLS method, the coefficient of the first principal governance component was found to be -0.45. This negative coefficient indicates that an improvement in the governance situation has a statistically significant and negative effect on unemployment in the selected oil-exporting countries. Therefore, enhancing the governance conditions in this group of countries is expected to reduce unemployment. Furthermore, the analysis revealed that the interest rate has a positive and significant impact on unemployment. This implies that higher interest rates are associated with increased unemployment rates. On the other hand, the price change index and labor force productivity growth were found to have negative and significant effects on unemployment. This suggests that higher price change and greater labor force productivity growth are associated with lower unemployment rates in the selected oil-exporting countries. The results of model estimation by FMOLS method have been summarized in the table below:

**Table 1: model Estimation**

| variable              | t statistics | probability              | Coefficient |
|-----------------------|--------------|--------------------------|-------------|
| PC <sub>1</sub>       | -3/99        | 0/000                    | -0/45       |
| r <sub>it</sub>       | 1/70         | 0/0894                   | 0/14        |
| PI <sub>it</sub>      | -2/97        | 0/0120                   | -0/029      |
| PROD <sub>it</sub>    | -2/29        | 0/0297                   | -0/024      |
| R <sup>2</sup> = 0/94 |              | Long run Variance = 5/66 |             |

(Source: Research Findings)

#### 5. Conclusion

The study aimed to explore the impact of governance on the unemployment variable in selected OPEC countries from 2002 to 2021, emphasizing the significance of

institutional factors. To address collinearity issues, the PCA method was employed to identify a suitable proxy for governance components. Subsequently, the model was estimated using the Fully Modified Least Square (FMOLS) method. The findings revealed that the first principal component exerted a statistically significant negative influence on unemployment in the chosen OPEC member nations, thereby confirming the research hypothesis.

## **6. Ethical Consideration**

### **6.1. Compliance with ethical guidelines**

All ethical guidelines have been followed in writing this article.

### **6.2. Funding**

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### **6.3. Authors' Contribution**

The authors contributed equally in writing this article.

### **6.4. Conflict of interest**

There is no conflict of interest to declare from authors.