



## Investigating the Asymmetric Effect of Informal Labor on Value Added Tax Revenues

Zeinolabedini, S.<sup>1</sup>; Habibi, F.<sup>2</sup>; Alimoradi afshar, P.<sup>3</sup>; Manochehri, S.<sup>4</sup>

Type of Article: **Research**

10.22126/PSE.2024.9940.1071

Received: 02 December 2023; Accepted: 30 March 2024

P.P: 139-162

### Abstract

The purpose of this research is to investigate the asymmetric effect of informal labor on value added tax revenues in the provinces of Iran using panel data in the years 1390 to 1398. The obtained results show that the relationship between informal labor and value-added tax income is initially positive and after reaching a certain threshold level, the relationship becomes negative, which means that informal labor has a threshold point on value-added tax income. Also, the results showed that the relationship between value added tax revenues and consumer price index as well as unemployment rate is negative and significant, and the relationship between value added tax revenues and population is positive and significant. Based on the obtained coefficients, the relationship between the value added tax of the previous period and the value added tax of the current period is positive and significant. Also, the results show that the informal workforce is different in terms of size, and the effect on value added tax revenues in different provinces of Iran.

**Keywords:** Informal employment, Efficiency, GDP, Consumer Price Index, Unemployment Rate, VAT.

**JEL Classification:** E26, H71, J24.

1. M.SC in Economics, Faculty of Humanities and Social Sciences, University of Kurdistan, Sanandaj, Iran.

**Email:** sajad.z.abedini1365@gmail.com

1. Associate Professor of Economic Sciences, Faculty of Humanities and Social Sciences, University of Kurdistan, Sanandaj, Iran (Corresponding Author).

**Email:** f.habibi@uok.ac.ir

2. Assistant Professor of Economics, Faculty of Humanities and Social Sciences, University of Kurdistan, Sanandaj, Iran.

**Email:** p.am.afshar@gmail.com

3. Postdoctoral in Economics, Faculty of Humanities and Social Sciences, University of Kurdistan, Sanandaj, Iran.

**Email:** s.manochehri@uok.ac.ir

**Citations:** Zeinolabedini, S.; Habibi, F.; Alimoradi afshar, P. & Manochehri, S. (2024). "Investigating the Asymmetric Effect of Informal Labor on Value Added Tax Revenues". *Public Sector Economics Studies*, 3 (7), 139-162.

**Homepage of this Article:** [https://pse.razi.ac.ir/article\\_2985.html?lang=en](https://pse.razi.ac.ir/article_2985.html?lang=en)

## 1. Introduction

One of the most important goals of optimal taxation in the society is the proper distribution of income, the realization of social justice, the fight against corruption, the control of inflation, providing the necessary grounds for the realization of competitiveness, the realization of continuous, stable and rapid economic growth suitable for the goals of the vision, creating He pointed out the trust and support of investors, attention to financial and budgetary discipline, efforts to stop relying on current expenses on oil and provide it from tax revenues, etc. Taxes in Iran are in two forms, direct and indirect taxes, and value added tax is one of the indirect taxes. Value-added tax is widespread in many countries mainly because it allows public revenues to increase. Today, value-added tax has found its place in the world and its importance is such that it has become the most important source of tax revenue in most developing and transitioning economies.

## 2. Theoretical Framework

Informal labor is a response to the tax burden and is mainly based on cash, in this sense, this method is more suitable to provide a quantitative assessment of the extent of tax evasion. Empirical analysis shows that informal labor activity acts as a substitute for the formal economy, while para-fiscal complement GDP. Due to the different causes that exist in these two phenomena, the importance and consequences of the informal and non-fiscal workforce change in the business cycle, and as a result, they need different policy measures. The 2002 Handbook of Informal Labor Measurement provides a useful standard in the literature. Value added tax is an indirect tax imposed on the consumption of goods and services, which is collected from the final consumer. Its advantage is its multi-stage nature, which is levied on the consumption of manufactured goods and services provided at different stages of the chain of import, production, distribution, and consumption based on a percentage of the added value of the goods sold or services provided at each stage, but the tax A payment at each stage of the import, production, distribution chain is transferred to the element of the next stage of the chain, so that it is finally paid by the final consumer.

## 3. Methodology

The GMM estimation quickly became one of the most widely used econometric techniques, both in cross-sectional estimation and in panel data estimation, because it is very flexible and requires only weak assumptions. Applying this estimator is especially useful when the pattern is too familiar. There are two methods to estimate the model with the panel data GMM method. The initial basis of GMM models was called first-order differential, which is shown as follows:

$$y_{it} = \beta_1 + \rho y_{it-1} + X_{it} \beta_2 + u_i + \epsilon_{it}$$

#### 4. Discussion

The estimation results also confirm the existence of a quadratic relationship. As it is known, the power of an informal workforce has a positive and significant relationship on the value added tax income, and the second power has a negative and significant relationship. The negative effect of informal labor on the value added tax income is from the consumption area. In other words, when the informal labor force of the economy is large and due to that there is a high level of informal labor force, the tax capacity in the area of value added tax is low, and as a result, we need formalization policies in the economy to increase the tax capacity. The informal workforce faces low incomes and lack of social support because it is not in the official framework of the country. For this reason, it reduces the tax payer's direct taxes and also reduces the value added tax income through indirect taxes from the consumption channel. The relationship between value added tax and gross domestic income (GDP) is also positive and significant. This index was obtained separately for each province. And it has been entered into the model to improve the reliability of the estimate. Also, considering the significance of the estimated coefficient, it shows that the explanation of the relationship between GDP and value added tax is logically justified. An increase in GDP can be equated to an increase in productivity and an increase in per capita income of the country. As a result, the disposable income of people has increased, which leads to an increase in consumption and ultimately an increase in value added tax revenues. The increase in GDP depends on the formal and informal sectors of the economy. In other words, formal and informal labor activities are included in the total gross domestic product. From this point of view, the direct relationship between GDP and value added tax is a logical matter.

#### 5. Conclusion and Suggestions

The results show that the value added tax of the past periods has a positive and significant effect on the value added tax of the current period. So that the increase of each unit of value added tax of the previous period increases 0.58 units of value added tax of the current period. Based on the results, it is clear that the variable of informal labor had an increasing effect on value added tax in the current period, but its square root has a negative effect. Policies aimed at reducing the informal workforce must necessarily consider the possible asymmetric consequences of the informal workforce's impact on value-added tax revenues in regions and provinces. Value added tax rate determination policies should be determined based on consumption levels of different goods. In other words, low price elastic goods should pay lower rates and high price elastic goods should be considered higher tax rates. Also, floating rates for value added tax should be determined by economic decision makers during periods of recession and prosperity, sanctions and agreements.

## **6. Ethical Considerations**

### **6.1. Authors' contribution**

When evaluating the effects of informal labor on value added tax revenue, various factors are influential both on the demand side and on the supply side. Therefore, determining this relationship is primarily an empirical issue. Past studies have generally investigated the impact of the informal economy on tax revenues. In this research, by using different panel models, using new regional data of value added tax and available labor, new observations of the effects of informal labor on value added tax revenues are presented. This research is conducted for the first time in Iran, and GDP and unemployment rate have been added to the model.

### **6.2. Conflict of interest**

There is no conflict of interest in this article.

### **6.3. Acknowledgments**

This article is extracted from the thesis defended in the Department of Economics, University of Kurdistan. Therefore, the authors consider it necessary to appreciate Kurdistan University.