



Examining the factors influencing value-added tax revenues: Spatial econometrics approach*

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Abstract

Value added tax is one of the main types of taxes that generate the most revenue for governments and thus contribute greatly to the budget. In other words, they can collect the revenues of this type of tax through economic and financial policies that affect the factors that determine the revenues of value-added tax. Accordingly, increasing value-added tax revenues can be achieved not only by regulating direct fiscal policy on value-added, but also by adjusting changes that directly affect values. Therefore, examining the nature of value-added tax and identifying the factors that increase the revenues of this type of tax can be useful for monetization. Given that one of the factors affecting financial revenues is the proximity of value-added and important neighboring areas, the aim of this study is to investigate the most influential factors on financial revenues on value, taking into account geographical distance. In this regard, the proximity matrix is used to manage the geographical distance space. In this study, annual data for the period (2008-2021) among the selected sample is used. Research indicates that the effect of geographical distance is positive among the study, after the distance among the study population is significant. Also, based on the results obtained, per capita income, household consumption and have a positive and significant effect on financial income on value added. Therefore, it is suggested that those with low geographical distance or proximity to the correlation can seek to increase and improve their value added tax revenues with better business relations.

Keywords: Value added tax revenue, economic factors, value added tax.

JEL Classification: H71, C21, H27.

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1. Introduction

Considering the increasing number of countries that use value added tax as a method to collect indirect taxes and the potential of increasing the revenue generation of this type of tax, conducting research in the field of value added tax revenue collection and related issues has become necessary. Therefore, understanding the main factors determining VAT revenues can be useful for policymakers. Most of the research conducted has focused solely on identifying the factors affecting VAT, and very little has been done on the effects of various factors, including the effect of proximity on VAT revenue. This research aims to examine the factors affecting VAT receipts from a broader perspective, including the economic conditions and proximity of countries. Therefore, in this study, the impact of important economic factors on value added tax revenues in selected Middle East countries is investigated with a spatial econometric approach and considering their spatial dependence during the period of time (2008-2021).

Given the increasing reliance of governments on value-added tax as a stable and efficient revenue source, understanding the determinants of VAT revenues has become a critical policy concern. While previous empirical studies have predominantly focused on domestic economic factors, they have largely overlooked the role of spatial interactions and geographical proximity in shaping tax revenues across countries. This neglect can lead to biased estimations and misleading policy recommendations, particularly in regions with strong trade linkages and economic integration. The Middle East, characterized by significant cross-border trade flows and economic interdependence, provides a suitable context for examining such spatial effects. The theoretical framework of this study draws on the fiscal sociology and tax competition literature, which suggests that countries do not formulate tax policies in isolation but rather respond to the fiscal behaviors and economic conditions of their neighbors. This study contributes to the existing literature by incorporating spatial dependence into the analysis of VAT revenue determinants, thereby offering a more comprehensive understanding of the fiscal dynamics within the region.

2. Theoretical framework

Value-added tax is of great importance as one of the most important methods of financing the budget of countries. Therefore, considering the importance of the effects of the value-added tax system and the need to provide solutions to improve and promote this type of system, this study has identified some of the most important factors affecting value-added tax. In this study, factors such as household consumption, inflation rate, GDP per capita, imports and geographical distance have been stated as important and influential factors.

3. Methodology

The purpose of this research is to investigate the factors affecting value added tax in

selected Middle East countries using the panel spatial econometric method during the period (2008-2021). The statistics and information required for the variables of household consumption, inflation rate, GDP per capita, imports have been extracted from the World Bank website and geographical distance from the CEPII website.

4. Discussion

First, in order to check the spatial dependence of the Moran, Gray and Jettis and Ord tests, the spatial dependence of the countries was confirmed and based on the significance of the tests, the research model was estimated in the spatial framework of a panel. Then, according to the logarithm of likelihood test, the SAR model was selected as the optimal model. The estimation results using geographical distance matrix and SAR model show that The variables of per capita income, household consumption, and imports have a positive and significant effect, and inflation has a negative and significant effect on value-added tax revenues.

5. Conclusion and Suggestion

Value-added tax, as one of the main pillars of government budgets, plays a major role in the growth and development of countries. Therefore, identifying the effective and important factors that affect it is of great importance. On the other hand, the application of taxes in a country is not solely influenced by internal factors, and other factors such as spatial dependence that arises due to the proximity of a region to other regions are also influential. In general, it can be stated that the impact of value-added tax revenues of countries in a region due to trade relations and proximity and neighborhood effects is undeniable. Per capita income and household consumption have a positive effect on value-added tax, so it can be stated that higher income, measured by gross domestic product per capital, can lead to the production of more value-added tax revenues by increasing the final propensity to consume, especially for goods and services subject to the standard tax rate. Therefore, the countries of the group should continuously take measures to improve the performance of various economic sectors and the successful transformation of the economy that leads to an increase in their income. Considering the positive effect of imports on VAT, the need to support free trade based on preserving interests is recommended for all countries, especially developing countries. Considering the negative effects of inflation on VAT revenues and also considering that tax revenues increase in a stable macroeconomic environment; Therefore, the countries of the group should pursue economic policies that reduce the inflation rate or keep it at a low level.

6. Ethical Considerations

6.1. Compliance with Ethical Guidelines

Any violation of the copying of this research will be prosecuted.

6.2. Funding

This research does not have the financial support of any organization or person.

6.3. Authors' Contribution

The authors have contributed equally in writing the paper.

6.4. Conflict of Interest

The authors declare that there is no conflict of interest in this research.

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