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Investigating the Direct and Indirect Effects of Road Transport Infrastructure on The Regional Growth of The Cities of Khuzestan Province

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EXTENDED ABSTRACT

INTRODUCTION

The economic growth of each region is based on different capacities, one of the most important of which is the communication and Road Transport Infrastructure. If the different dimensions of economic development are examined, it is inferred that all these activities from the beginning to the exploitation are in some way related to transportation issues. As one of the factors affecting economic prosperity, communication and transportation infrastructure increases the availability of regional welfare and facilities through the movement of cargo and passengers, and therefore plays a very important and influential role in the process of economic development; while also being influential in the process of economic development (Shahraki Moghadam, Karimian Bostani, & Anuri, 2020).

Khuzestan is located in a very strategic and transit position, with the highest gross production among Iranian provinces after Tehran province. Khuzestan province has 29 municipalities, 70 wards, 146 villages and 88 cities. Due to its climatic and economic conditions, Khuzestan has witnessed significant changes in its various cities. According to statistics published by the Khuzestan Road Transport and Highways Department, the length of the main roads of the city of Dezful from 31/163 in the year 2011 to 6/231 in the year 99 means 40 percent, but the city of shushter reached 2/282 in the year 2020 from 9/227 in the year 2011, that is, 24 percent growth (Alavi & Esfandiari, 2019). For this purpose, the hubness index, access index and market potential were used to examine the impact of transportation infrastructure on the economic growth of the cities of Khuzestan province.

METHODOLOGY

The research data for the period 2011-2020 for 27 cities of Khuzestan province is in the form of panel data, which is used to examine the temporal and spatial effects of the generalized torque method (GMM).

FINDINGS

The findings show that if the hubness index of the largest cities in Khuzestan province changes by 10 percent, 4.4 percent of GDP per capita will be reduced. Also, if 100% changes in the size of the hubness index of the cities of Khuzestan province, 7% will be added to the size of the largest cities of Khuzestan province. Also, according to the results of the estimate, if the size of the largest city of Khuzestan changes by 10 percent, about 20 percent will be added to the GDP of the cities of Khuzestan province. The indirect effect of the hubness index of the largest city on GDP is also a positive effect and as much as 0.12. Based on this result and the results of Model 3-1, in which the direct effect of the impact of the hubness index of the largest city on GDP is calculated at the rate of 0.44 - indicates the effects in the opposite direction. So in total, the impact of the largest city's hubness on the GDP of the cities of Khuzestan province will be 0.32.

CONCLUSION

The results of the study show that the hubness index had a positive effect on the size of the cities of Khuzestan province but reduced the GDP of the provincial cities. This is despite the fact that the growth of large cities in Khuzestan province has increased the GDP of the province. The indirect

effects of the hubness index also indicate positive effects on the GDP of the cities of Khuzestan province. The results of this study show that the spatial development of the city of Khuzestan province was not in line with the hubness index, and it seems that cities with higher hubness capacity are marginalized. It is therefore recommended that in order to develop the population in the cities of Khuzestan province, the issue of the polarity of the city should be considered and more attention should be paid to the cities that have higher polarity indicators and higher potential in this field, such as Karun and Hamideh.

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