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## Monitoring and tracking inequality in the services and facilities of urban space justice (Case study: Gorgan city)

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## **Extended Abstract**

**Objective**: Distributed spatial distribution of urban services is one of the most important signs of spatial justice in the city. The spatial justice in the city, namely, preserves the interests of different social groups based on the optimal development of urban resources, revenues and expenditures. Geographically speaking, the spatial justice of the city is synonymous with the fair distribution of resources and resources between different urban areas and the equal access of citizens to them because their lack of fair distribution will lead to social crises and complex spatial problems. Therefore, the conscious management of urban management in the spatial distribution of social benefits to reduce spatial inequalities and the promotion of the quality of the physical environment, through which the promotion of quality of life and the achievement of urban sustainability requires an understanding of the status quo, in which it seeks to eliminate inequalities The allocation of resources with the most suitable combination is possible. In the meantime, the Urban Service Index, which can include a large subset of its own for measuring the development of human societies, identifies the most critical subsets of the current sustainable development indicators that are defined by the organization International institutions and institutions.

**Methods**: The present research is applied in terms of purpose and descriptive-analytical type. The method of data collection is documentary and library. The statistics and research indicators, which per capita use services are at the district level, are drawn from a detailed plan. The statistical population of the 8 urban areas is based on 3 urban areas based on the structural divisions of the Road and Urban Planning Office of the year 1395. To identify, analyze and level the areas of the city based on the amount of access to urban facilities and services, the multi-criteria decision-making techniques approach to the TOPSIS option of the agreed solution and multi-criteria optimization (VIKOR), the weighted average Simple (SAW) in Excel software environment and also in order to map the spatial distribution map using Arc GIS software.

**Results**: Based on the findings of the TOPSIS model, the region 2 of Zone 2 with the development coefficient (0.055057) ranked first as the area and the area 2 from Zone 1 with coefficient of development (0.04117) has the last rank and is recognized as a deprived area in the optimal distribution of services and facilities and how citizens access to urban services. Area 1 is from area 2 with development coefficient (0.4046) and region 2 from area 3 with development coefficient (0.3133) at semi-high level. Areas 2 and 1 of area 1 are at the disadvantage level with a coefficient of enjoyment (0.0411 and 0.1269) respectively. From Zone 2, only District 3 with a development coefficient (0.0681) is at a disadvantage. Also, in District 3 of Gorgan, District 1 with a development coefficient (0.27474) is at a disadvantage. However, it can be said that five districts of the eight districts of Gorgan are in a disadvantaged position and have two semi-arid areas, and only one of the 8 districts of this city is in a state of affairs. Based on the results of the method of VIKOR 2, Zone 2 with Victory coefficient (0/00), Zone 1 has a zone of 3 with a VIKOR coefficient (0,3758), Regions 1 and 2, respectively, from regions 2 and 3 with The coefficients of development (0.6888) and (0.7770) have low-wavelengths and regions 2, 1, 3, and 3, respectively, from regions 1, 2 and 3 with coefficients of VIKOR (1), (9345/0), (9585 / 0) and (0.8252) have been deprived

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of access to urban services. These results indicate the inappropriate status of urban services and facilities indicators in Golestan province and the most populous city in the province, which requires special attention of planners and urban managers. The results of Saw method indicate that regions 1 and 2 of area 2 with development coefficients (0/2941) and (2019/0) are at the level of enjoyment and regions 2 and 3 of area 3 with development coefficients (1582 / 0) and (0/1420) at half-level. At the end, regions 2 and 1 of area 1 with development coefficients (0.0228), (0.0493), and areas 3 and 3 were from regions 2 and 3 with coefficient points (0.0386), (0.0927) at the lowest Levels or better expressions are at the most deprived level of urban services and facilities. In this method, the mean arithmetic of the results is obtained. According to these results, regions 2 and 1 of district 2 of Gorgan, with average rank (1) and (2.33), in the first and second rank and area 3 of the region respectively 2 and area 2 from area 1 with average rating (7) and (8), respectively, in terms of having utility and service facilities. According to the Copywriting method, regions 2 and 1 of Zone 2 have the highest grade of Copywriting (1) and (2) and regions 2 and 2 of Area 1 and 3 of Area 2, respectively, with Copywriting coefficient (8) and (7) are at the lowest level. In the method of integration of Gorgan regions, there are different levels of utilization so that zone 2 of zone 2 with the coefficient of development of integration (1) is at the highest level, and then region 1 of region (2) with coefficient of integration (16 / 2) is at the next level. And regions 2 of zone 1 and 3 of area 2 are known with the degree of integration (8) and (7) with the least amount or, in other words, the most deprived areas of the city of Gorgan.

Conclusion: The main problems of cities in recent decades are the uneven distribution of resources in different parts of the city. Disturbances in the distribution system of service centers in urban spaces have created the social inequality of citizens in enjoying this service. Considering the importance of distributing service use in urban areas and providing the necessary facilities and services is an important factor in promoting the standard of living, social justice and sustainability of urban life. Rankings and in the end, the merger method was used to achieve a single result according to the above models. It can be said that the combination of urban indicators and GIS is a valuable tool for describing and monitoring the aspects of inequality in order to achieve better management of resources.

Keywords: Urban Services, Spatial Justice, VIKOR, Urban Areas, Gorgan City.

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