

Assesment of spatial distribution of public services with an emphasis on good governance in Kerman city using the software Geoda

Movahedi Nia, M^a., Khodabakhshi, M^{b,1}., Mohammadi Zadeh, N^c

^a PhD in Architecture and Urban Design, University of Florence, School of Architecture and Urban Planning, Florence, Italy.

^b Master of Urban Restoration, University of Science and Technology, Faculty of Architecture and Urban Planning, Tehran, Iran

^c PhD in Urban Planning, University of Science and Research, Tehran, Tehran, Iran.

Extended Abstract

Objective: Good urban governance is considered as an approach of decision making and management of urban affairs, and urban management body in Iran consisting of two municipal and council organizations can be one of the best mechanisms for realizing good urban governance. Investigating equality in the spatial distribution of urban services and facilities is one of the most important topics in urban studies. The purpose of this study was to measure the spatial distribution of public services in Kerman, Iran with emphasis on good urban governance in order to achieve sustainable development. New models of spatial analysis, including privacy analysis and spatial autocorrelation techniques, have been able to analyze the issue of access to utilities not only for one particular type of service but also for a large number of services and demonstrate the spatial distribution of services (focus and dissemination), citizens' access, and urban spatial justice.

Method: The present study is a descriptive-analytical research based on documentary, library, and field studies. To this end, Geoda software was extensively used in this study to analyze the relationships between population density, area, spatial distribution, and access to public facilities in Kerman metropolitan. The statistical population included the urban services areas of Kerman which are four with 12000 hectares. This study examined six types of services (educational, religious, welfare-tourism, military, commercial, and administrative).

In accordance with the principles, criteria, and standards of urban planning resulting from global experiences and the geographical situation of Kerman metropolitan, the stages of research analysis were carried out. At this point, access levels are defined for each of the user layers using Geoda software analysis.

At this stage, the layers prepared in the previous step were weighted using Geoad software and Weighted Overlay. The layers used in this section are six layers of services, out of which one layer with three access radiuses of good, medium, and weak was extracted. Integrated distribution of access to services is based on educational, cultural-religious, welfare-tourism, military, commercial, and administrative layers; areas 1 and 2 and parts of areas leading to these areas have high service value. Urban areas are of medium service status, and the peripheral areas are of poor service value.

Comparing the area of the regions with the region itself and other regions in the form of moderate and poor accessibility based on map analysis shows that zones 1 and 2 devote most of their area to good access and has not devoted any value to itself in moderate and poor access. Zones 3 and 4 are also those which have devoted the largest area to moderate access. And the marginal areas have poor access to city services. The city of Kerman is located in northeast of Kerman Province with an area of 12000 hectares in a geographical location of 56° 55' to 57° 15' east longitude and 30° 10' to 30° 20' north latitude.

Results: To take necessary measures to reduce the phenomenon of divorce in Ghaemshahr city, planning precisely to reduce the factors involved in poverty, which are considered the main causes of divorce, it is seems necessary. Regions 2 and 3 in Kerman city have the largest share with 29 public uses, and this is while less than 25 percent, and 25 to 50 percent of public land is allocated to 95 uses. These areas also take the largest number of educational land uses with 22 major uses, while less than 25 percent of these services is allocated to 149 educational uses. Regions 1 and 4 with 18 uses, have taken the largest number of cultural-religious uses, and less than 25 percent of the cultural-religious uses is allocated to 77 users, mainly in regions 2 and 3. Regions 2 and 4 with two main uses include the highest military use share, and regions 1 and 2 with 12 uses have totally 75 percent of the military uses. In the city, 29 land uses with

¹ Corresponding author address: Kerman, Iran, P.C: 7618849381. E-mail address: mkhodabakhshi26@gmail.com (Khodabakhshi, M).

welfare-tourism function include the less than 25 percent, mainly in areas 3 and 1. The largest share of the commercial land use is located in Region 2, and regions 3 and 1 have a share of less than 25 percent, up to 543 uses.

Conclusion: Population-friendly services are not distributed in the novel's metropolitan areas and citizens' access to public services is not equal. The downtown areas have good access to services and the surrounding areas have poor access. The concentration of urban services in Kerman follows the center-periphery model, which means that as we move from the city center to the surrounding areas, the distribution of services is reduced. Areas with high population density also have high service density, and in areas with low population density, low facility density has been observed.

Keywords: Social Justice, Municipal Services, Life Quality, Geoda, Kerman City.

Received: December 6, 2019 Reviewed: February 04, 2020 Accepted: March 14, 2020 Published online: March 20, 2020

Citation: Movahedi Nia, M., Khodabakhshi, M., Mohammadi Zadeh, N (2020). *Assesment of spatial distribution of public services with an emphasis on good governance in Kerman city using the software Geoda*. *Journal of Urban Social Geograpy*, 7(1), 233-253. (In Persian)

DOI: [10.22103/JUSG.2020.2013](https://doi.org/10.22103/JUSG.2020.2013)

References:

- Abdali, Afshar (1398). *Explain the conceptual framework of good urban governance based on integrated urban management (case study: Tehran metropolis)*. Quarterly Journal of New Attitudes in Human Geography, Issue 1, 309-293. (In Persian)
- Akbari, Ghazanfar (1385). *Social capital and urban governance*. Journal of Geographical Research, No. 83. (In Persian)
- Akhavan Kazemi, B (2000). *Justice in View of West Politics*. Politics Information Journal, No.
- Barakpour, Nasser (2009). *Urban governance and urban management system in Iran*. Proceedings of the Urban Planning and Management Conference. (In Persian)
- Bass, R. (1998). *Evaluating environmental justice under the National Environmental Policy Act*. Environmental Impact Assessment Review, 18, 83–92.
- Borkpour, Nasser, Wayer Jasdi (2009). *Urban management and governance*. Art University Press. (In Persian)
- Costanza, R (2007). *Quality of life: An approach integrating opportunities*. Human needs and subjective well-being, Ecological Economics, 61(2-3).
- Dadashpour, Hashem and Alvandipour, Nina (2016). *Spatial justice at the urban level in Iran, beyond the theoretical framework of existing scientific articles*. Journal of Fine Arts, Architecture and Urban Planning, Volume 21, Number 3, 67-80. (In Persian)
- Das, D (2008). *Urban Quality of Life: A case study of Guwahati*. Social Indicators Research, 88.
- Dufaux, F (2008). *Birth announcement*. justice spatial/spatial justice, www.jssj.org.
- Hataminejad, Hossein (2001). *City and social justice: Spatial heterogeneity in Mashhad neighborhoods*. PhD Thesis, Shahid Beheshti University. (In Persian)
- Hekmatnia, H. Giove Chi, S. Heidari Nowshahr, N. Heidari Nowshahr (2011). *Spatial analysis of urban public services using data standardization method, numerical taxonomy and feature coefficient model (Case study: Ardakan city)*. Human Geography Research (77) 43 179-165. (In Persian)
- Hewko, J.N (2001). *Spatial Equity in the Urban Environment: Assessing Neighbourhood Accessibility to Public Amenities*. University of Alberta.
- Hosseini Shah Parian, Nabiullah Hosseini, Reza Nemati, Morteza (1394). *Analysis of Development Indicators with Emphasis on Regional Inequality: Case Study: Khuzestan Province*. Journal of New Attitudes in Human Geography, Volume 7, Number 3. (In Persian)
- Hosseinzadeh Dalir, K (1998). *Regional Planning*. 1st Edition, Tehran, Samt Press.
- Kaphle, Isha (2006). *Evaluating people's accessibility to public parks using Geographic Information Systems: A case study in Ames, Iowa*. Iowa State University.
- Kazemian, Gholamreza (2007). *An Introduction to the Rule of Urban Governance*. Quarterly Journal of Urban Research, No. 19 and 20. (In Persian)

- Khakpour, Barat Ali (2009). *Investigating and analyzing inequality at the level of development of urban areas of Mashhad*. Journal of Knowledge and Development, No. 27. (In Persian)
- Khasto, M., Rajabi, M (2018). *Realization of good urban governance by emphasizing the concept of spatial and social justice (case study: Rasht city)*. Journal of Urban Management, No. 54, 214-197. (In Persian)
- Liao, Chin-Hsien, Chang Hsueh-Sheng, Ko-Wan Tsou (2009). *Explore the spatial equity of urban public facility allocation based on sustainable development*. Real Corp, (<http://www.corp.at/>)
- Lotfi, Sedigheh.Koohsari, M.J (2009). *Measuring objective accessibility to neighborhood facilities in the city (A case study: Zone 6 in Tehran, Iran)*. Cities, Vol. 26, pp: 133– 140.
- Lupala, J.M (2015). *Urban Governance in the Changing Economic and Political Landscapes: A Comparative Analysis of Major Urban Centers of Tanzania*. Current Urban Studies.
- Mc. Carney. P and et al (1995). *Towards and unerestanding of Governance*. The emergency of and idea and its implications for urban research in developing contries uneversity of toronto.
- Mirabadi, Mostafa., Rajabi, Azita., Mahdavi Hajilouni, Massoud (2016). *An analysis of spatial heterogeneity in urban areas with emphasis on the role of dysfunctional tissues and settlements (case study: Mahabad city)*. Journal of Geographical Space, 16 (55): 43-17. (In Persian)
- Mitchel G., Norman P (2012). *Longitudinal environmental justice analysis: Co-evolution of environmental quality and deprivation in England, 1960–2007*. Geoforum, No. 43, pp: 44–57.
- Nastaran, Mahin (2001). *Analysis and assessment of the center and distribution of health indicators in Isfahan*. Journal of Research, Faculty of Literature and Humanities, University of Isfahan, Fall and Winter 2001, Isfahan. (In Persian)
- Pacione, M (2003). *Urban environmental quality and human well being a social geographical perspective*. Landscape and Urban Planning, 65(1-2).
- Qaranejad, Hassan (1997). *Investigating the geographical distribution of health centers in the city of Isfahan*. Journal of Geographical Research, No. 44. (In Persian)
- Rahnama, Mohammad Rahim (2006). *Measurement and changes of access in the mother city of Sydney*. Journal of Geography and Development, No. 7. (In Persian)
- Rezvani, Mohammad Reza, Motkan, Ali Akbar, Mansoorian, Hossein, Sattari, Mohammad Hossein (2009). *Development and measurement of quality indicators of urban life*. Journal of Urban and Regional Studies and Research, Vol.1, Issue2. (In Persian)
- Savas, E.S (1978). *On Equity in Providing Public Services*. Management Science, Vol.24, No.8,
- Stillwell, J., Norman, P., Claudia, T., Paula, S (2010). *Spatial and social disparities. Understanding Population Trends and Processes*, 2, pp 1-15.
- Subordinate, rare; Movahed, Ali; Tulayi, Simin; Kamanroudi, Musa (2016). *Investigating the Role of Spatial Justice in Urban Management (Study Area: Districts 6, Tehran)*. Journal of Spatial Planning, No. 21, 36-23. (In Persian)
- Tsou, Ko-Wan, Yu-Ting Hung, and Yao- Lin Chang (2005). *An accessibilitybased integrated measure of relative spatial equity in urban public facilities*. Cities, Vol.22 No. 6, pp: 424–435.
- Zakarian, Maliha; Mousavi, Mir Najaf., Bagheri Kashkoli, Ali (2010). *An Analysis of Population Distribution and Distribution of Services in Meybod Urban Areas from the Perspective of Sustainable Development*. Journal of Urban Research and Planning, 1 (2): 84-61. (In Persian)