

Analysis of Public Space Control in the Parks of Tehran

Ahmad Pourahmad^{1*}, Keramatollah Ziari¹, Hossein Hataminejad², Hassan Rezaeinia³

1. Professor of Geography and Urban Planning, Faculty of Geography, University of Tehran, Tehran, Iran
2. Associate Professor of Geography and Urban Planning, Faculty of Geography, University of Tehran, Tehran, Iran
3. PhD Student of Geography and Urban Planning, University of Tehran, Tehran, Iran

Received: 11 July 2018 Accepted: 22 December 2018

Extended Abstract

Introduction

One of the most influential trends in the production of contemporary public spaces is the growing tendency to control and monitor these spaces. However, this trend has so far been less studied. Public spaces are becoming increasingly controlled over time, as some critics claim. Hence, the assessment of public spaces control allows researchers to prevent intensification of the control while supervising and continuously monitoring this process. On the other hand, it is very important to address the issue of controlling the public space from the aspect of environmental quality. The extent to which our public spaces are encouraging differences is an important debate that affects the use of these spaces and their invitation. In this sense, a space which encourages freedom of use, behavior, and access, is a more open and democratic space. Accordingly, two major issues have been addressed in this research: The first is to measure the level of control of the public space and its methods in the parks of Tehran and the second is to examine the views of users of these parks on the issue of controlling the space.

Methodology

The study area includes the parks of "Mellat", "Laleh", "Razi" and "Shahr" in Tehran, all of which are considered as downtown area parks. These parks were selected based on three criteria including regional functional scale, the central position in the city and size of the parks. The first part of this study is the empirical framework developed by Németh & Schmidt (2011). In this empirical method, public space control is measured through four dimensions including "rules and regulations", "Surveillance and policing", "access and territoriality" and "design and image". The first two dimensions include hard methods and the third and fourth dimensions include soft methods of space control. The method of data collection in this section was direct observation and field study. Thus, by going to the parks, the data for each variable were taken and then the variables were scored according to the intensity of their presence in each park. In the end, the final score for each park was calculated and the results were analyzed. To measure the second part, we have used a researcher-made questionnaire designed in the 5-point Likert scale. The components of the questionnaire include the degree of agreement with the four methods of control of the public space, as well as questions that measure the relationship between the control of the public space and the quality of the public space. The statistical population of this section was the users of these parks. In the sampling stage, 100 users of each

* Corresponding Author, Email: apoura@ut.ac.ir

park were questioned by "Random available" method. Also, interview and talk with some users were used as a complementary method of data collection.

Results and discussion

Based on the results of the first section, among the parks under study, the Mellat Park and Laleh Park have a low degree of control, and the Shahr Park and Razi Park are highly controlled. The first group of the parks has the "openness" characteristic. This feature encourages differences and provides more freedom for users. However, it makes the environment of the parks more vulnerable in terms of security considerations. In spite of the differences between the studied parks, in general it can be said that hard control methods have been used more than soft control methods. The results of the second part showed that the level of public space control is directly related to the quality of the public space and the excessive control over the space, reduces its quality in variables such as the feeling of comfort, pleasure and the desire to re-use that space. On the contrary, increased control will increase the security of space. In addition, reviewing the views of users on the four dimensions of public space control shows that in the context of laws and regulations, we are faced with a diversity of tastes and opinions among users of various parks. For this reason, we cannot speak of same pattern. But despite of the variation in interests, users of all four parks, with a high degree of agreement, wanted preventing the entry of marginal groups such as beggars, child labor and homeless people into the parks. The main reason for this is that people and users frequently fail to make the distinction between identity and behavior. Therefore, the identity of the marginal groups conveys abnormal behaviors in the minds of users, which leads to opposition with the presence of these groups in public spaces. In the context of policing and police, in all cases, users were opposed with these methods. But in terms of design and image, the average of all four parks was close, and users had high agreement with design techniques to control the spaces. Also, space control through territoriality methods is more acceptable to users than access restriction methods. In general, the users of the parks agree to apply more soft methods of control over the public space than hard methods. However, Tehran's parks are often controlled by hard methods.

Conclusion

The results of this research showed that there is a significant relationship between age and sex with user's preferences in controlling public space. Thus, the age group of over 60 years old was more likely than the other groups to like the control of the public space. As the same way, women were more likely than men to agree with soft control methods. In terms of exacerbating control over the space, Razi Park users, unlike three other parks, demanded more control and monitoring over the park's space, due to the low security of the area where the park is located in. Finally, it should be acknowledged that the factors, including the variety of users, their interests and their different expectations of how much the public space is controlled, make it difficult to achieve a specific standard. Nevertheless, the process of production, management and change of public spaces should include a democratic and open process to consider the demands and interests of different individuals and groups as much as possible.

Keywords: control of space, public space, urban parks, Tehran.

References

1. _____, 2006, *Conflict, Exclusion, Relocation: Skateboarding and Public Space*, Journal of Urban Design, Vol. 11, No. 3, PP. 297–318.
2. _____, 2010, *Security in Public Space: An Empirical Assessment of Three US Cities*, Environment and Planning A, Vol. 42, No. 10, PP. 2487–2507.
3. Altman, I., and Zube, E. H., 2012, *Public Places and Spaces*, Springer, Berlin Heidelberg.
4. Amin, A., 2008, *Collective Culture and Urban Public Space*, City, Vol. 12, No. 1, PP. 5–24.

5. Ashrafi, Y. et al., 2015, *Conceptualization and Typology of Contemporary Urban Public Space*, Journal of Geographical Urban Planning, Vol. 2, No. 4, PP. 435-464. (In Persian)
6. Ashrafi, Y., and Pourahmad, A., 2015, *Modernity and Developments in Urban Public Space*, Academic Center of Education, Culture and Research, Tehran (In Persian)
7. Bagheri, N., 2017, *Tehran's Subway: Gender, Mobility, and the Adaptation of the 'Proper' Muslim Woman*, Social and Cultural Geography, DOI: 10.1080/14649365.2017.1356364. (In Persian)
8. Banerjee, T., 2001, *The Future of Public Space: Beyond Invented Streets and Reinvented Places*, Journal of the American Planning Association, Vol. 67, No. 1, PP. 9-24.
9. Carmona, M., 2010, *Contemporary Public Space, Part Two: Classification*, Journal of Urban Design, Vol. 15, No. 2, PP. 157-173.
10. Carr, S. et al., 1992, *Public Space*, Cambridge: Cambridge University Press.
11. Cuthbert, A. R., 1995, *The Right to the City: Surveillance, Private Interest and the Public Domain in Hong Kong*, Cities, Vol. 12, No. 5, PP. 293-310.
12. Cybriwsky, R., 1999, *Changing patterns of urban public: Observations and assessments from the Tokyo and New York metropolitan areas*, Cities, Vol. 16, No. 4, PP. 223-231.
13. Dadashpour, H., Yazdani, A., and Keshtkar, V., 2017, *Identification and Analysis of the Influential Factors on Women's Presence in Public Space (Case Study: Shoosh Park in Tehran)*, Women in Development and Politics, Vol. 15, No. 1, PP. 21-43. (In Persian).
14. Davis, M., 1992, *Fortress Los Angeles: The Militarization of Urban Space*, In Michael Sorkin (Ed.), *Variations on a Theme Park* (PP. 154-180), New York: Noonday Press.
15. Davis, M., 2006, *Fortress L.A.*, in *City of Quartz: Excavating the Future of Los Angeles*, Verso Publications, PP. 240-263.
16. Ellin, N., 1997, *Postmodern Urbanism*, New York: Princeton Architectural Press.
17. Flusty, S., 2001, *The Banality of Interdiction: Surveillance, Control and the Displacement of Diversity*, International Journal of Urban and Regional Research, Vol. 25, No. 3, PP. 658-664.
18. Francis, M., 2012, *Control as a Dimension of Public-Space Quality*, In Altman, Irwin; Zube, Erwin H (2012), *Public Places and Spaces*, 2012 th Ed., Springer, Berlin Heidelberg.
19. Geyh, P., 2009, *Cities, Citizens and Technologies: Urban Life and Postmodernity*, Taylor and Francis Group: New York, London.
20. Ghaderzade, O., and Khazaie, S., 2014, *A Qualitative Study of Semantic Implications Women's Sense of Insecurity in Public Spaces*, Women in Development and Politics, Vol. 12, No. 3, PP. 405-424. (In Persian).
21. Graham, S., 2011, *Cities Under Siege: The New Military Urbanism*, London: Verso.
22. Kayden, J. S., 2000, *Privately Owned Public Space: The New York City Experience*, New York: Wiley.
23. Kohn, M., 2004, *Brave New Neighborhoods: The Privatization of Public Space*, Routledge: New York and London.
24. Kruppa, F., 1993, *The Privatization of Public Space*, MA, Thesis, Available At: <http://Simple-Is-Beautiful.Org/Fredek/Pps.Html>, Accessed July 20, 2018.
25. Lefebvre, H., 1991, *The Production of Space*, Oxford, Blackwell.
26. Mitchell, D., 1995, *The End of Public Space? People's Park, Definitions of the Public, and Democracy*, Annals of the Association of American Geographers, Vol. 85, No. 1, PP. 108-133.
27. Németh, J., 2004, *Redefining Security in Public Space: The Case of LOVE Park*, IEEE Technology and Society, Vol. 23, No 4, PP. 19-20.
28. Németh, J., and Hollander, J., 2010, *Security Zones and New York City's Shrinking Public Space*, International Journal of Urban and Regional Research, Vol. 34, No. 1, PP. 20-34.

29. Németh, J., and Schmidt, S., 2011, *Publicly Accessible Space and Quality of Life: A Tool for Measuring the Openness of Urban Spaces*, In *Quality-of-life Community Indicators for Parks, Recreation and Tourism Management*, (PP. 41–66), Edited by Megha Budruk, Rhonda Phillips, London: Springer.
30. Oc, T., Tiesdell, S., 1999, *The Fortress, The Panoptic, The Regulatory and the Animated: Planning and Urban Design Approaches to Safer City Centres*, *Landscape Research*, Vol. 24, No. 3, PP. 265–286.
31. Paddison, R., and Sharp, J., 2007, *Questioning the End of Public Space: Reclaiming Control of Local Banal Spaces*, *Scottish Geographical Journal*, Vol. 123, No. 2, PP. 87–106.
32. Pennaya, A., Mantona, E., and Savic, M., 2014, *Geographies of Exclusion: Street Drinking, Gentrification and Contests Over Public Space*, *International Journal of Drug Policy*, Vol. 25, No. 1, PP. 1048–1093.
33. Phadke, S., 2007, *Dangerous Liaisons: Women and Men: Risk and Reputation in Mumbai*, *Economic and Political Weekly*, Vol. 42, No. 17, PP. 1510–1518.
34. Schmidt, S., Németh, J., and Botsford, E., 2011, *The Evolution of Privately Owned Public Spaces in New York City*, *Urban Design International*, Vol. 16, No. 4, PP. 270–284.
35. Sennett, R., 2002, *The Fall of Public Man*, New York: Penguin Book Press.
36. Shafiei, M., and Alikhah, F., 2014, *Space and Reproduction of Power (A Study on the Gender Segregation in Tehran Universities)*, *Journal of Iranian Cultural Research*, Vol. 7, No. 1, PP. 95-122. (In Persian).
37. Shearer, Scott; Walters, Peter (2015), *Young People's Lived Experience Of The 'Street' In North Lakes Master Planned Estate*, *Children's Geographies*, Vol 13, No 5, Pp. 604–617.
38. Sorkin, M., 1992, *Variations on a Theme Park: The New American City and the End of Public Space*, New York: Hill and Wang Press.
39. Thörn, C., 2011, *Soft Policies of Exclusion: Entrepreneurial Strategies of Ambience and Control of Public Space in Gothenburg*, Sweden, *Urban Geography*, Vol. 32, No. 7, PP. 989–1008.
40. Van M. et al., 2007, *Fear and Fantasy in the Public Domain: The Development of Secured and Themed Urban Space*, *Journal of Urban Design*, Vol. 12, No. 1, PP. 25–42.
41. Viswanath, K., and Mehrotra, S. T., 2007, *Shall We Go Out? Women's Safety in Public Spaces in Delhi*, *Economic and Political Weekly*, Vol. 42, No. 17, PP. 1542–1548.
42. Whyte, W. H., 1990, *City: Rediscovering The Center*, New York: Doubleday.
43. Wilson, E., 1992, *The Sphinx in the City: Urban Life, The Control of Disorder, And Women*, Berkeley: University of California Press.
44. Zieleniec, A., 2015, *Space and Social Theory*, Translated by Mahmoud Shourcheh, Parhamaghsh Publication, Tehran. (In Persian).

The Feasibility Study of Participatory Urban Governance Model in the Neighborhood (NBN Program) in Tabriz (Case study: Zone 2)

Shahrivar Rostaei^{1*}, Forough Andesta²

1. Associate Professor of Geography and Urban Planning, Environmental Sciences and Planning College, University of Tabriz, Iran
2. MA in Geography and Urban Planning, Environmental Sciences and Planning College, University of Tabriz, Iran

Received: 31 July 2017 Accepted: 17 July 2018

Extended abstract

Introduction

The intensity and complexity of the urban issues and specifying the ineffectiveness of traditional bureaucratic systems and up-down decision-making rendered pursuit of the flexible and democratic approaches in the urban management urgency issue. Thus, it is needed that a decentralized and participatory structure in managing the urban affairs for good urban governance is also introduced as one of the most sustainable ways in this field. In this regard, the NBN program called "Neighbors, build the environment around their neighborhood" is as one of the most successful ways of a good urban governance over the past ten years in Rochester, New York. In this program, all citizens are trying to organize the environment around them. In general, the aim of the present study is to answer the following questions: Is it possible to implement a participatory urban governance model (NBN program) in district 2 of Tabriz Metropolitan Area? With regard to the strengths, weaknesses, opportunities, and threats, what is the position of the considered district in the area of the implementation of this program? What are the four strategies and which is the superior strategy?

Methodology

The present study is applied research using a descriptive-analytic methodology. This study is conducted based on documentary studies including reports, paper, book and referable resources, and field surveys including questionnaire, observation and interview, and Delphi method. The statistical population of this research is all the residents in district 2 of Tabriz Metropolitan Area and the sample size was calculated up to 382 people using Cochran's formula. Firstly, a detailed questionnaire was developed in cooperation with the municipal experts of the 2nd district municipality to determine the strengths, weaknesses, opportunities, and threats in the executive field of participatory urban governance (NBN program). The questions have been provided as multiple answers options using theoretical foundations and information extracted from the detailed questionnaire. The questions have 5 answers based on Likert Scale, each of which is different in terms of the severity and weakness of the question. According to the preliminary questionnaires that have been conducted, it has been tried to state the unclear questions in another form in order to be comprehensible to all citizens. Up to 30 questionnaires were prepared in the preliminary questionnaires to examine 30 citizens of district 2 of Tabriz metropolitan. It is worth noting that the reliability of the questionnaire based on Cronbach's alpha is 0.835 and, so, desirable tool. It has been carried out to examine the strengths,

* Corresponding Author, Email: srostaei@gmail.com

Tel: +989143196157

weaknesses, opportunities, and threats according to the information obtained from the questionnaire, using the SWOT technique, and then it has been used to weight the factors and rank the cases. Finally, the strategies have been provided in the form of quadratic strategies and formulating the QSPM matrix to prioritize and select the best strategies. The SWOT technique has been adopted to examine the status of the feasibility of participatory urban governance (NBN program) in the mentioned area to identify the strengths and weaknesses, opportunities and threats and analyze internal and external factors to maximize strengths and opportunities and minimize weaknesses and threats.

Results and discussion

The results indicate that the total score of the internal factors (strengths and weaknesses) is 1.96, which is lower than the ideal score (2.5). This means that the 2nd district of Tabriz Metropolitan Area, in terms of the possibility of using the participatory urban governance model (NBN program), has unfavorable internal conditions. This region has dramatic weaknesses in terms of the internal factors. The total final score of the external factors (opportunities and threats) is 1.78 and as internal factors, it is lower than the normal score (2.5); that is, the aforementioned region has not been able to react against the exogenous factors properly. In other words, it has not been able to take advantage of the factors considered as opportunities and avoid the factors threatening them. The internal-external factors matrix also indicates that the location of this region in terms of the possibility of using this program is in the first priority in a defensive position, that is, the strategy of the WT group (defensive) and the strategy of the WO group (conservative) is in the second priority. In other words, defensive strategy has been chosen as a superior strategy. This means that the region faces weaknesses and threats in order to apply the participatory urban governance model (the NBN program) and should reduce the weaknesses and prevent threats. According to the quantitative Strategic Planning Matrix (QSPM) to prioritize WT strategies, "eliminating any algebraic space by custodians and managers of urban affairs can be helpful to create interactive space as the first priority.

Conclusion

In Iran, most of the programs and plans have been performed in an up to down state due to some factors including the disintegration of social relations in the city, poor social and local supports of the urban development plans and lack of a good governance model. Indeed, the dominant approach of the authorities is non-participatory. This matter has led to the lack of implementation of justice, rule of law, transparency, and all of these factors challenge the sustainable development. Therefore, moving from heterogeneous management to good governance is an inevitable choice. In this regard, one of the most effective practices in the governance of contemporary urban areas is the conventional management method that is called NBN. This method is based on the maximum participation of citizens. It can be considered as one of the most serious steps to focus on centralized management and "up-down planning" of the city and move towards decentralized participatory governance and "down -up planning".

Keywords: good urban governance, NBN Program, SWOT Analysis, second district of Tabriz Metropolitan Area.

References

1. Atkinson, R., 1998, *The New Urban Governance And Urban Regeneration*, Managing Community Participation.
2. Esfandi, S., 2012, Feasibility Study on the Implementation of a Participatory Urban Governance Model at the Neighborhoods Level (NBN) in the 22nd District of Tehran, a Collection of Articles from the National Conference on Good Governance, Tehran Municipality, Department of Social and Cultural Affairs, Vol. 2, PP. 109-132. (In Persian)
3. Fen Kooi, A., 2006, *Neighbors Building Neighborhoods: A Critical Look At Citizen, Participation In Rochester*, Department Of City And Regional Planning At Cornell University.

4. Hajizadeh, J., and Mirab, J., 2011, Analytical Report of Census in 1390 Each Separate Decuple Zones of Tabriz Municipality, Planning and Development Adjutancy, Statistics and Information Analysis Management. (In Persian)
5. John, G., Burce, A., and Tim P., 2000, *Principles for Good Governance in the 21st Century, Policy Brief*, No. 15 - Institute On Governance, Ottawa, Canada, PP: 1-9.
6. Kamanroudi Kajvari, M., and Bigdeli, M., 2014, The Comparative Study of Urban Development Provisions and Plans with Reasonable Ruling (Case Study:Tehran Urban Developmental Plans), *Journal of Urban Studies*, Vol. 3, No. 11, PP. 39-50. (In Persian)
7. Kazemian, G., amd Saeedi Rezvani, N., 2002, *The Feasibility of New Responsibilities Cession to Municipalities, Urban and Municipalities Management in Iran*, The Municipality Organization, Vol. 2, Publications of the Municipal Organization of Iran. (In Persian)
8. Mc Laughlin, B., 1973, *Control and Urban Planning*, London, Faber and Faber.
9. Mckinlay, P., 2002, *Globisation, Subsidiarity and Enabling the Governance of Our Communitie*,1-12, <Http://Mdl.Co.Nz/Readingroom/Governance/Globalsub.Html>.
10. Mortazavi, M., 2013, Local Management and Urban Ruling, Considering Japan, South Korea, Turkey and France Urban Management Structure, Urban Planning and Studies Center of Tehran, Tehran Municipality. (In Persian)
11. Movahed, A. et al., 2014, The Study of Urban Local Development with Emphasis on Reasonable Urban Ruling (Related Case Study: Zone 19,Tehran), *Quarterly Journal of Urban Structure and Function Studeis*, Vol. 2, No. 7, PP. 147-176. (In Persian)
12. Nurudin, S., Hashim, R., and Zulkifli, Nursyahida, 2015, *Public Participation Process at Local Government Administration: A Case Study I Seremban Municipal Council*, Malaysia, 2nd Global Conference on Business and Social Sceince, Indonesia,17-18 September, PP. 505-512.
13. Parhizkar, A., and Kazemian, Gh., 2006, Urban Ruling Approach and Its Necessitation in Managing Metropolis of Tehran, *Journal of the Economic Research*, Vol. 5 No. 16, PP. 29-50. (In Persian)
14. Rafeeian, M., and Hoseynpour, A., 2011, *Reasonable Urban Ruling Through Urbanism Theories*, Tahan Publication, Tehran. (In Persian)
15. Rahnama, M., Khakpour, B., and Sadeghi,M., 2012, *Strategic Management Analysis in Mashhad Metropolis with SWOT Model*, *Geography and Planning*, Volume 16, Issue 42, Pages 173-198. (In Persian)
16. Relhan, G., Lonkova, K., and Huque, R., 2014, Good Urba Governance Through ICT: Issues, Analysis and Strategies, Africa Urban and Water Sector Unit (AFTUM), The World Bank, PP. 11-12.
17. Safaeepour, M., Amanpour, S., and Naderi Chegani, Z., 2013, *Assessment and Analysis of Feasibility of Reasonable Urban Ruling in Khorramabad*, *Urban Planning and Geography Periodicals About Zagros*, Vol. 5, No. 17, PP. 115-130 (In Persian)
18. Srinivas, H., 1997, *Understandig the Concept of Governance*, <https://Gdrc.Org/U-Gov/Governance-Understand.Html>.
19. Taylor, P., 2000, *UNCHS (Habitat), The Global Campain for Good Urban Governance*, *Environment and Urbanization*, Vol. 2, No. 6, PP. 1-24.
20. The Importance of Provisions and Policy of Formal Scheme, 2013, *Urbanism and Architecture Adjutancy Organization*, 20-38.
21. Ziari, K., Nikpey, V., and Hoseyni, A., 2012, The Measurement of Citizens Participation in Urban Management Based on Reasonable Urban Ruling (Case Study:Yasuj), *Journal of Housing and Rural Environment*, Vol. 32, No. 141, PP. 69-86. (In Persian)

Analysis of Spatial Distribution of Urban Public Services using Techniques of Vikor and Was Pas (Case Study: Kerman)

Ali Asghar Abdollahi^{1*}, Moslem Ghasemi²

1. Asociant Profesor of Geography and Urban Planning, University of Shahid Bahonar Kerman, Iran
2. MA in Geography and Urban Planning, University Shahied Bahonar Kerman, Iran

Received: 29 July 2017 Accepted: 03 November 2018

Extended abstract

Introduction

Spatial inequality and disbalance among the citizens of different area in a city is not a new phenomenon in cities of the world. However, in developing countries, there are differences in egregious social- economic inequality and imbalance in the distribution of urban services. This is because spatial structure of a city is formed of personal elements that are mutually together and the inconstancy of each of these components will affect the whole structure. In the present age, the main factor crisis of human societies is rooted in social inequalities and lack justice. Therefore, the important goals of this research is to check and analyze his distribution of urban services of look-out spatial justice in Kerman city as well as to evaluate the relations between distribution of population and urban services from spatial look-out. What is the accessibility of Kerman people to the services of the Kerman municipality in the urban districts? Are municipal services of Kerman properly distributed among the urban districts?

The justice of the spatial distribution of the services should have suitable distribution with proportional facilities and services (Kharazmi, 2008). On this basis, there are two prominent axese in the spatial justice, circumstance life situation (social environment and the physical environment) and the distribution of opportunities, and accessibility to social, physical and allegorical infrastructures. Many serious urban management challenges are related to spatial inequality in distribution of urban services. Increased focus of urban planners on urban influence strategy has increased population density and people's proximity to public transport, engagement, and urban amenities. The polarization of the spatial structure of a city may be resulted from management policies in giving privileges to an environment in attracting facilities and services or the inability of an environment to attract facilities and services. Therefore, the most important factors in urban planning are the use of spaces and distribution, and in other words, the fair distribution of space in the city. In this case, the user services and urban services are among the most effective factors meeting demographic needs, raising public interest. They can enhance dimensions of spatial, social and economic justice.

Methodology

This research has a descriptive-analytic methodology. The statistical population is four urban areas of Kerman. Up to 14 criteria public service indicators have been scrutinized that have been scattered across the urban areas of Kerman. In this research, we initially evaluated the spatial distribution of the entropy of the population using the Wasps and Vikor models. The distribution of services in the urban areas of Kerman has been calculated. The Spearman method

* Corresponding Author, Email: aliabdollahi1313@gmail.com

is also used to calculate the correlation between population variables and access to services in urban areas of Kerman.

Results and discussion

For spatial distribution of services in urban areas of Kerman, Vikor and Wasps multi-index models have been used in this research using 14 criteria. All of these criteria are positive indicators. The data have been gathered from documentary and field studies. The study options in this research are four areas of Kerman. In order to analyze the spatial distribution characteristics of the population in four urban areas, the city of Kerman has been used for entropy coefficient model. Using this model, we can determine the spatial equilibrium of population deployment and the number of cities in the urban, provincial, regional and national levels. Based on the values calculated in step 6 for the options, districts 1 and 3 are above the rest of the area. The final ranking of the WSM and the WSM model also shows that districts 1 and 3 are higher than the rest of the regions.

Conclusion

Based on the results of the research, the per capita budget of poor regions such as regions 3 and 4 is less than that of districts 1 and 2. Perhaps one of the main reasons for that is the difference in population density. Anyway, this way of distributing budgets, formed by spatial inequalities, is likely to be exacerbated. Also, the districts 1 and 3 have the lowest per capita park area and the least access to the hospital. However, the free medical services of Kerman Municipality in health are also worth noting in terms of its distribution in different regions. In terms of the index of day-markets and fruit and vegetable fields, some districts like 1 and 3 share less. It is noteworthy that the poor urban districts have good access to these fields and markets. Filling leisure is in the form of sports and cultural activities of urban services. In terms of per capita sport spaces in districts 2 and 3 and cultural spaces in districts 2 and 3 have a good status. Access to public transport services is one of the features of social justice in the distribution of spatial services in the city. This is especially important because the residents of Kerman in districts 2 and 3 are largely dependent on the public transportation system due to lack of access to personal transport. Access to educational services is greater in the central parts of the city, and the South and Southwest sectors have an appropriate access to these types of services. The northern districts, besides the districts 3, are relatively well-placed in terms of access to educational services, but access to educational services in western regions of Kerman (district 2) is not appropriate. In general, the best access to educational services belonging to the center of the southern areas of the city has been concentrated. These services are concentrated in the center and central part of the south Kerman. The concentration of services and administrative offices in district 1 of Kerman is far more than other areas. According to this, the focus of services for public libraries of the city is also greater in area 1. One of the important components of quality of life in the city is the availability of services related to gas stations, fire stations and cinema. Most of these services are located in districts 2, 3 and 4. On the other hand, district 1 has the lowest number of these services.

Keywords: urban services, space balance, Kerman, WasPas, Vikor.

References

1. Ahadnejad, M., Zolfi, A., and Noroozi, M. J., 2012, Evaluation Transmittal Population and Distribution Service in the Area City with Method Development Sustainable and Social Justice Use of Modeels VIKOR and TOPSIS, (Case Study: Zanjan), Publication Scientific- Research Theory New in Human Geography, Vol. 5, No. 2, PP. 162-182. (In Persian)
2. Bouchani, M. H., 2006, Study Loss Equivalences Space- Social City Illam of Look-out Development Sustainable, Magazine Citys, Vol. 6, No. 73, PP. 66-69. (In Persian)

3. ChoChan, M., 2013, *Study on Effects of Resident-Perceived Neighborhood Boundaries on Public Services, Accessibility and Its Relation to Utilization, Using Geographic Information System Focusing on the Case of Public Parks in Austin, Texas* A and M University, Texas.
4. Deniz, A., 2012, Measuring the Satisfaction of Citizens for the Services Given by the Municipality: The Case of Kirsehir Municipality, *Procedia Social and Behavioral Sciences*, Vol. 62, No. 24, PP. 555-560
5. Dufaux, F., 2008, *Birth Announcement, Justice and Spatial/ Spatial Justice*, in: <http://Jssj.Org>.
6. Eskandari Nodeh, M., and Khoshdelan, M., 2011, Space Analysis Dispersal Population and Distribution Service in the City Bandar Anzali with Method Topsis, *Geography and Stability Environment*, Vol. 2, No. 3, PP. 25-44. (In Persian)
7. Hatami Nejad, H. et al., 2011, City and Justice Social: Resolution Inequality District, Casy Study: District Old Miyandoaab, *Researchs Human Geographi*, Vol. 44, No. 80, PP. 41-63 (In Persian)
8. Hekmatnia, H. et al., 2011, Study Space Distribution Service City with Usage Approach Standard Data, Number Taksonomi Amd Modell Ratio Exclusivity, Case Study: Ardakan, *Researchs Human Geographi*, Vol. 77, No. 43, PP. 165-179. (In Persian)
9. Hekmatnia, H., and Musavi, M., 2006, *Usage Modell in the Urban Planning and Area*, Publishid New Learning, Press1, Yazd. (In Persian)
10. Hewko, J. N., 2001, Spatial Equity in the Urban Environment: Assessing Neighborhood Accessibility to Public Amenities, University of Alberta, Canada.
11. Hosseini, N., 2015, *An Analysis of Spacial Justice with an Emphasis on Civic Services in Zones of Ahvaz*, Department of Geography and Urban Planning, University of Shahid Chamran. (In Persian)
12. Jafarri Samimi, A., 2011, *Study Relative Advantage Value Additional Service City Mashhad (Province Khorasan Razavi)*, Collation with Centers Province in the Program Devalopment Fourth, Publication City Directorship, PP. 83-98. (In Persian)
13. Kaphle, I., 2006, Evaluating People's Accessibility to Public Parks Using Geographic Information Systems: A Case Study in Ames, Iowa, Iowa State University, USA.
14. Khabouk, T., 2014, *Evaluation of the Spatial Distribution of Urban Services and Social Justice Approach, Case Study: Region 3 Bandar Abbas*, Master's Thesis, Department of Geography and Urban Planning, School of Social Sciences and Geography, University of Yazd: 26. (In Persian).
15. Kharazmi, Sh., 2008, *Quality Life and Committals Period Digital in Iran*, Base Information Knowledge Communications in Iran. (In Persian)
16. Langford, M. et al., 2008, Urban Population Distribution Models and Service Accessibility Estimation, *Computers, Environment and Urban Systems* 32.
17. Liao, Ch. et al., 2009, Explore the Spatial Equity of Urban Public Facility Allocation Based on Sustainable Development, Real Corp, <Http://Corp.At/>.
18. Lin, B., Meyers, J., and Barnett, G., 2015, Understanding the Potential Loss Iniquities of Green Space Distribution with Urban Densification, *Urban Forestry and Urban Greening* 14, PP. 952-958.
19. Marsosi, N., 2004, *Analysis Space Social Justice in the City Tehran*, Publication Research Municipality, No. 65. (In Persian)
20. Martinez, J., 2009, The Use of GIS and Indicators to Monitor Intra-Urban Inequalities: A Case Study in Rosario, Argentina, *Habitat International*, Vol. 33, No.1, PP. 387-396.
21. Mukomo, S., 1996, *On Sustainable Urban Development in Sub-Saharan Africa*, *Cities*, Vol. 13, No. 40, PP. 265-271.
22. Musavi, M., 2008, *Shape Firm City and Social Justice: Case Study: Yazd*, Design Rasearch, University Payame Noor Yazd. (In Persian)

23. Nazmfar, H., Eeshgi Chaharborj, A., and Gasemi, M., 2014, Check the Status of Social Justice Facing Urban Spatial Structure (Case Study: The City of Maragheh), *Journal of Geography and Environmental Studies*: 91-112. (In Persian)
24. Opricovic, S., and Tzen, G., 2007, *Decision Support Extended VIKOR Method in Comparison with Outranking Methods*, *European Journal of Operational Research*, Vol. 178, pp. 514–529.
25. Rahnama, M., 2007, Planning Accessibility to Bus in Iran, Mashhad, Magazine Planning Space, Spell12. (In Persian)
26. Sawoj, M., and Ward, A., 2007, *City Sociology*, Translate, Abolghasem Pour Reza, Publication Samt, Tehran. (In Persian)
27. Shafieei, Y., 1997, *Bookkeeping Space – Local Service Hygienic and Therapeutic (Hospital) in the City Zanjan with Usaage Gis*, College Geography and Environment Planning, Groap Geography, University Sistan and& Baloochestan. (In Persian)
28. Timothy, S., Hare, H., and Barcus, R., 2007, *Geographical Accessibility and Kentucky's Heart-Related Hospital Services*, *Applied Geography* 27, PP. 181-205.
29. Tirband, M., and Azanii, M., 2012, Distribution Facilities and Service City for Justice Social (Case Study: Yasooj), Vol. 23, No. 46, PP. 109-138. (In Persian)
30. Tsouko, W., YuTing, H., and YaoLin, Ch., 2005, an Accessibility Based Integrated Measure of Relative Spatial Equity in Urban Public Facilities, *Cities*, Vol. 22, No. 6, PP. 424-435.
31. Varesi, H., Ghaed Rahmati, S., and Bastanifard, I., 2007, *Study Vestigial Distribution Service City in Disbalance Service Space, Case Study: Areaes Esfahan*, *Geography and Development*, Vol. 5, No. 9, PP. 91-106. (In Persian)
32. Varesi, H., Zangiabadi, A., Yaghfoori, H., 2008, *Study Comparative Distribution Service City of Appearance Social Justice (Zahedan)*, *Geography and Development*, Vol. 11, No. 11, pp. 139-156, (in persian)
33. Zakeriyan, M., Musavi, M., and Bagherri Kashkoolii, A., 2009, *Study of Distribution Population and Distribution Service in the City Sectors Meybod of Appearance Development Sustainable*, Magazine Research and Urban Planning, Vol. 1, No. 2, PP. 61-84. (In Persian)
34. Zarrabi, A., and Musavi, M., 2010, Analysis Transmittal Space Population and Distribution Service in the Area City Yazd, *Research Geography*, Vol. 25, No. 97, PP. 27-46. (In Persian)
35. Ziyari, K., Mahdiyanbehnamiri, M., and Mehri, A., 2011, Study and Consideration Space Justice Usage of Service General City of Distribution Population and Capability Availability in the City Babolsar, *Publication Research Application Geography*, Vol. 13, No. 28, PP. 217-241. (In Persian)

Role of Sustainable Urban Development Indices in Organizing the Declined Urban Areas (Case Study: Neighborhood Alighapoo Ardabil)

Bahram Imani^{1*}, Pouya Joudi Gollar², Masood Heydarvand³

1. Assistant Professor of Rural Planning, University of Mohaghegh Ardabili, Ardabil, Iran
2. MA in Urban and Regional Planning, Faculty of Architecture and Urbanism, Tabriz Islamic Art University, Tabriz, Iran
3. MA in Geography and Urban Planning, Islamic Azad University, Rasht Branch, Rasht, Iran

Received: 04 October 2017 Accepted: 06 March 2019

Extended abstract

Introduction

In the recent decades urban old neighbourhoods have been forgotten. Most of traditional fabricates were the honor of their cities are facing decay more than 50 years. Nearly population of all these regions was relocated. The special cultural, social and historical heritages in different sectors were expired or are in extinction stage. Just few buildings stand or remained difficultly as memorial and they are memory of past urbanization and architecture. In old regions of cities and central districts, modernisation didn't happen and the mentioned regions have had hard resistance against the modernisation expressions which cause to non-implementation reforming and repair. Therefore, the designing consequences and construction criteria are main barriers leading to increasing decay in traditional fabricates.

In order to make precise analysis of the issue; Ali Qapoo neighbourhood in Ardebil was selected as one of the old neighbourhoods with high decay issue. Ali Qapoo old fabricate neighbourhood has been located in down town of Ardebil city. This neighbourhood has faced with problems such as urban decline and cases such as physical decay of fabricates, low crossing width, lack of attention to resident's cooperation in enacted reforming plan implementation, resident's economic problems, urban management inequality and conflicts. Current research tries to discover Ardebil city old area and Ali Qapoo neighbourhood by determining accurate cases of hidden angles. Ali Qapoo old neighbourhood in Ardebil city just such as other decayed fabricates in our country is in need for renovation surveys and old fabricates revival. One of the basic and logical surveys is to focus on stable development to local reforming and renovation. Surveys such as resident's social cooperation, living environment quality, use of native materials to fabricate reforming and renovation and capability are preferences and main necessities.

Methodology

This research is combined with field and descriptive methods by applied survey and comparative study. This is a descriptive-analytical research in methodology. At first, the sustainable main criteria and indices were determined especially for old fabricates and urban places using library studies and field researches. Thus, 17 main criteria were refined for the research framework as economic, social and environmental patterns. Questionnaire tool were used to gather data. Using the questionnaire, we examined the statistics and required information and entered them into computer by EXCEL. Classified data and statistics and

* Corresponding Author, Email: bahram_imani60@yahoo.com

Tel: +989141540629

scoring of indices were investigated by experts in Expert Choice software in order to study Ali Qapoo neighbourhood sustainability in Ardebil city. Various coefficients and indices were determined for sustainability of the mentioned neighbourhood. One of indices has special weight based on importance which it presents validity according to score in sustainability criteria.

Results and discussion

By exploring the detailed plan and statistics of Ardebil city and acquiring viewpoints of experts and administrators of organizations; scoring of the indices and criteria was implemented by Expert Choice to compute their relative proportion in total amounts. Among physical indices, building age index (A3) with score 0.557 is a main criterion to investigate Ali Qapoo old neighbourhood. Among economical indices, activity situation criterion (B5) with score 0.546 is a main criterion to investigate Ali Qapoo old tissue neighbourhood. The family household congestion in residential unit (C1) with score 0.373 is a main criterion to investigate Ali Qapoo old neighbourhood. Also, among environmental indices; rubbish and garbage excretion (D2) with score 0.665 is a main criterion to investigate Ali Qapoo old tissue neighbourhood.

In general, scoring of economic, social, environmental and physical indices can be used to determine the main basis of sustainable development of each fabricate. In current research for Ali Qapoo neighbourhood, social index was recognized as a main factor for achieving sustainable development. We conclude that in the process of neighbourhood regeneration and reaching to urban sustainable development; we must prefer social indices and with regard to research analysis, environmental indices are located in next rank. They should be investigated in mentioned subjects.

Conclusion

According to the results of this research, constant urban growth and urbanization in recent years lead to contemporary urbanization faced with new problems and challenges. Paradigm of urban sustainable development has originated from human thought to such challenges. It is a part of valid solutions in current era. Urban sustainable development without required infrastructure isn't possible and the best pattern to sustainable development infrastructures is using existence and inefficient urban spaces, which called urban old or foreworn fabricates. In first stage of current research, we investigated traceable dimensions in urban development theories. We used inferential indices weighting in research factors and at last, preferred indices or criteria were determined to present related policies and subject's coverage.

Results showed that, garbage excretion, building age, activities position and household congestion in residential unit had high scores among social, environmental, physical and economic indices. Also, we conclude that, garbage excretion, building age, activities position, household congestion in residential unit and social dimension have main importance about sustainable development of old and foreworn fabricates.

Keywords: sustainability index, old neighborhoods, sustainable city, public participation, Ardebil City.

References

1. Andalib, A., 2006, *Tehran City Foreworn Tissues Revival Development, Necessities and Guidelines*, Capital Construction Second Seminar, Civil Conferences and Scientific Articles Bases. (In Persian)
2. Andalib, A., 2008, *Notes of Foreworn Tissues Revival*, Vol. 1, Urban Revival Organization Publication, Tehran. (In Persian)
3. Ardebil City Extensive Plan, 2009, Parsoomash Counselor Engineers. (In Persian)
4. Ardebil City Extensive Plan. (2009). ZISTA Counselor Engineers.

5. Asadian, F., and Sayyahi, Z., 2011, People Cooperation Pattern Role in Urban Tissues Renovation and Reforming by Using Geographical Information System (GIS), Case Study: Ahvaz, Ameri Neighbourhood, Environment Organizing Geographical Journal, No. 12, PP. 139-163. (In Persian)
6. Asian Development Bank, 2004, City Development Strategies to Reduce Poverty, Manila.
7. Esmailpour, N., Rahimian, M., and Ghorbani, S., 2012, Urban Old Tissues Renovation by Focusing on Social Mobilization; Case Study: Koshtargah Neighbourhood at Yazd City, Urban and Regional Studies Journal, No. 15, PP. 123-140. (In Persian)
8. Fanni, Z., and Yadollah, S., 2009, *Outskirts Residences Capability in Urban Foreworn Tissues Process, Case Study: Islam Abad*, Tehran Second Municipality Region, Organizing Geography Journal, No. 7, PP. 57-73. (In Persian)
9. Habibi, M., and Maghsoodi, M., 2002, *Urban Repairing*, Tehran University Printing and Publication, Tehran. (In Persian)
10. Habibi, M., and Saeidirezvani, H., 2005, *Cooperative Urbanization; Theoretical Discovering for Iran Conditions*, Aesthetics Arts Magazine, No. 24, PP. 15-24. (In Persian)
11. Hafeznia, M., 2006, Introduction to Methodology in Humanities Sciences, SAMT, Tehran. (In Persian)
12. Hanachi, S., 2003, *Necessity of Iran Cities Old Tissues Revival*, Tehran Inefficient and Old Tissues Reforming and Renovation Conference. (In Persian)
13. Hemphill, L., Berry, J., and McGreal, S., 2004, An Indicator-based Approach to Measuring Sustainable Urban Regeneration Performance: Part 1, Conceptual Foundations and Methodological Framework, Urban Studies, Vol. 41, No. 4, PP. 725-755.
14. Kidokoro, T. et al., 2008, Vulnerable Cities: Realities, Innovations and Strategies, Sustainable Urban Regeneration, Vol. ???, No. 8, PP. 40-64.
15. Kohn, G., 2007, Index Recognition in Sustainable Development and National Accounts in Green Bed, Trade Research and Studies Institution, Tehran. (In Persian)
16. Lui Y, D. et al., 2009, *Ecological Footprint Dynamic of Yunnan China*, Journal of Mountain Science, Vol. 6, No. 3, PP. 286-292.
17. Mirkatooli, J., Mahdavi, S., and Ahmadi, M., 2013, Analysis and Investigation of Urban Regions Sustainable Development by Using Multi Criteria Decision Methods (MADM), Regional and Urban Studies Magazine, No. 19, PP. 83-106. (In Persian)
18. Moosavi, N., Heidari, H., and Kashkooli, A., 2012, Investigation Social Capital Role in Urban Foreworn Tissues Reforming and Revival, Case Study: Sardasht City, Regional and Urban Studies Magazine, Vol. 4, No. 15, PP. 105 -122. (In Persian)
19. Mukoko, S., 1996, On Sustainable Urban Development In Sub-Saharan Africa, Cities ,265-277.
20. OECD-organization For Economic Co-Operation and Development, 1992, Enviromental Indicators: A Preliminary Set. OECD. Paris.
21. Özdenmir, S., 2014, Intervening to Urban Decline by Urban Design Tools i Walled Cities, Lefkoşa, Master of Science In Urban Design, Middle East Technical University.
22. Pourahmad, A., and Shamaei, A., 2005, *Urban Renovation nd Reforming in Geography Science Viewpoint*, Tehran University Printing and Publication Institute, Tehran. (In Persian)
23. Rabi, A., 2004, Urbanization and Social Equality of Traditional Tissues Erosion Reasons; Iran Urbanization Subjects Conference Articles (Urban Management) Vol. 2, Shiraz University, Art and Architecture College, Shiraz. (In Persian)
24. Rafieian, M., and Radmahnoosh, Sh., 2008, Urban Development Guideline in Urban Development Planning Recognition by Focusing on Kerman City Guideline Planning; Iran Social Studies Magazine, 4 Continuous Neighbourhood and City Journal, No. 3, PP. 6-29. (In Persian)

25. Rafieian, M., Forrozandeh, M., and Dadashpour, H., 2013, *Neighbourhood Based Planning Recognition in Urban old Tissues, Case Study: Tehran, Sanglach Neighbourhood*; Regional and Urban Studies Magazine, No. 18, PP. 89-106. (In Persian)
26. Riley, J., 2001, Indicator Quality for Assessment of Impact of Multidisciplinary Systems. Agr. Ecosyst Environ. No. 87, PP. 121–128.
27. Roberts, P., and Sykes, H., 2000, *Urban Regeneration, A Handbook*, First Published, Sage Publication, London.
28. Sarvar, R., and Moosavi, N., 2011, *Evaluation of West Azerbaijan Urban Sustainable Development*, Iran Geography Association Research-Scientific Journal, No. 28, PP. 7-28. (In Persian)
29. Shafaei, S., 2006, Guidance of Recognition and Intervention in Foreworn Tissues Issued at Iran Architecture and Urbanization Supreme Council, Tehran: Fan and Honar Idepardazan Publication. (In Persian)
30. Shaterian, M., and Zakiyehakbari, A., 2015, Urban Revival Panel Along Foreworn And Urban Poverty Reducing (Case Study: Kashan City Old Tissue), Geography Journal, No. 44, PP. 119-142. (In Persian)
31. Statistics, Selective Indices and Social, Economic Nominators, 1996, *House and Population Public Capitation*, Iran Statistics Center. (In Persian)
32. Varesi, H., Mohammadi, J., and Akbarzadeh, R., 2015, Investigation Citizen's Role In Urban Foreworn Tissues Reforming And Revival, Case Study: Isfahan 6th Region, Regional and Urban Studies Magazine, No. 25, PP. 59-82. (In Persian)
33. Wheeler, S. M., 2004, *Planning for Sustainability: Creating Livable, Equitable and Ecological Communities*. Routledge, New York.

Satisfaction of Urban Residents about the Urban Furniture (Case Study: Five Different Regions of Zahedan)

Mostafa Istgaldi^{1*}, Fahime Khajeh Nabei², Fazel Hajizadeh³, Nezamaldin Sattarzadeh³

1. Assistant Professor of Geography and Urban Planning, Zabol University, Zabol, Iran

2. PhD in Geography and Urban Planning, Islamic Azad University of Semnan, Semnan, Iran

3. MA in Geography and Urban Planning University of Sistan & Baluchestan, Zahedan, Iran

Received: 08 February 2018 Accepted: 08 December 2018

Extended abstract

Introduction

In urban areas, public spaces are considered as the areas widely used citizens. They can also potentially play an important role in promoting the social quality of life by creating a similar sense of place for the urban community. Hence, the urban space is the place where people spend most of their time and establish maximum communication with each other and their surroundings. Therefore, the arrangement of space and the facilities that are nowadays known as urban furniture is very important. Thus, urban furniture is a set of structural elements that depend on the cultural characteristics of cities and play an important role in recognizing the city, especially in promoting social welfare. According to Bairex, urban furniture elements have the characteristics to make communication among people, meaning functional and beauty. Hence, there are many qualities that give identity to the region and complement it. For these reasons, urban furniture elements are of great importance not only for functional purposes, but also because of the effects they have on restoring urban prospects. Since the three main goals of urban planning are health, comfort and beauty, achieving all three items, along with paying attention to the pleasant design of urban space, are thoroughly boring in the design and planning of urban furniture. The beautiful furniture in the sunny atmosphere will not be charming, and the beauty of the area where the furniture will be laid will not appear. For this purpose, the design of the urban space and urban furniture is the basis for reaching the present-day healthy city. On the other hand, paying attention to human proportions in the manufacture of urban furniture, as well as to the conditions of the climatic conditions and indigenous materials is also a necessity in the design of urban furniture.

Methodology

This research has an applied-developmental purpose with descriptive-analytical method. The population of the study is all residents of Zahedan city. According to the census of 2016, population of the city was 587730 people. Using Cochran formula, 323 people were selected as samples. Therefore, a simple random sampling method was used to distribute questionnaires at the level of five areas of Zahedan proportional to the population of each region at the level of districts. Thus, validity of the questionnaire was confirmed by expert opinions via Cronbach's alpha. This was used to measure the reliability of the questionnaire. The Cronbach's alpha for each group of factors and indicators is as follows: Environmental Quality 0.864, Fit and beauty, 0.775, correct layout of furniture 0.782 and non-coherent urban structure 0.876. In order to analyze the data collected by one-sample T-test, Pearson correlation coefficient was used in

* Corresponding Author, Email: m.istgaldi62@gmail.com

SPSS software. For leveling of the five areas of Zahedan city, we used urban models of the model components.

Results and discussion

The present research used to measure urban furniture from a large number of components in the four dimensions of "environmental quality", "beauty and fit", "proper placement" and "urban inhuman structure". In addition, one-sample T-test and Pearson correlation coefficient were used to analyze the components of urban furniture. Results of the components related to the "quality of the environment" indicate that the majority of the components are less than the initial set value of the test, that is, the number 3, as a whole, the overall status of the "environmental quality" indicator with an average of 2.63 is lower than the level of the initial test value. The four factors related to the "beauty and fit of urban furniture" shows that all its components are considered to be low. Also, the mean value obtained for all components related to the factor of "urban inhomogeneity" was lower than the mean value of the test, and the average overall factor of the "urban inhomogeneity structure" was equal to 2.34. Pearson correlation coefficient test results indicate that in all cases, there is a significant relationship between four factors of urban furniture and satisfaction index. Among urban furniture factors, the most correlation is due to the correct placement of urban furniture and urban inhomogeneity with a correlation coefficient of 0.481. Findings of the Vicor model also indicate that the districts one and five in terms of urban furniture elements are in high level of development.

Conclusion

The theme of urban furniture, as one of the most prominent examples of the maintenance, identity, visual beauty of the city, and citizens' satisfaction, has become an important knowledge of the suitability of the city's space and the quality of life of individuals. In this regard, the aim of the present research is to analyze the urban furniture components including environmental quality, proper furniture layout, fitness and beauty, and heterogeneous urban structure and its effects on satisfaction level of citizens in Zahedan. The results of a single-sample T test indicate that the mean value of the four components of the urban furniture is less than the assumed mean value of the test, so that the environmental quality factor with a mean of 2.63 is more than the correct furniture placement factors. The heterogeneous structure of the city and its beauty are consistent with the average values and in a relatively favorable situation. In the next step, the effects of four factors of urban furniture on satisfaction index were investigated using Pearson correlation coefficient test. Calculation of correlation coefficient of the four factors of urban furniture as well as between these factors and satisfaction index indicate that there is a significant positive relationship between the factors and the mentioned index. Thus, among the urban furniture factors, the most correlation value was related to the correct location of urban furniture and urban inhomogeneity with a correlation coefficient of 0.481. Also, the highest correlation coefficient was related to the relationship between the correct layout of urban furniture and satisfaction index. Finally, the VIKOR model was used in order to examine the five areas of Zahedan in terms of the urban furniture components and determine the most desirable region. The results of this model indicate that the districts of 1 and 3 of Zahedan have a coefficient of 0.036, 0 and 1.000 in the best and worst situation in terms of urban furniture indicators.

Keywords: urban furniture, citizen's satisfaction, fourth component of urban furniture, Zahedan City.

References

1. Abdul Wahab, M. H. et al., 2015, *Malay Furniture: Design, Function and Meaning*, Social and Behavioral Sciences, Vol. 202, PP. 285-293. <https://doi.org/10.1016/j.sbspro.2015.08.232>

2. Afradi, K., 2016, Urban Furniture and Reducing the Probability of Occurrence of Crime in Urban Spaces of Crime (Case Study: Birjand Kargaran Booth), *Journal of Law Enforcement*, Vol. 5, No. 3, PP. 23-51. (In Persian)
3. Amiri, K., Biranvandzadeh, M., and Khodad, M., 2016, *Citizens' Satisfaction with the Quality of Furniture in the Inner City Parks in Tehran*, *Journal of Urban Management Studies*, Vol. 8, No. 28, PP. 47-56. (In Persian)
4. Ashrafi, Y. et al., 2014, *Conceptualization And Typology Of Contemporary Urban Public Space*, *Geographical Urban Planning Research*, Vol. 2, No. 4, PP. 435-464. (In Persian)
5. Azadkhani, P., and Tahmasbi Kiya, Z., 2016, Examine the Role and Function of Urban Furniture Urban Environment and Enhance the Quality o Citizens' Satisfaction (Case Study: Kermanshah Municipal District 4), *Urban Research and Planning*, Vol. 7, No. 27, PP. 93-110. (In Persian)
6. Babaiaghdam, F., Eghbal, M., and Omrani, M., 2014, *An Income to Understand Urban Furniture Elements*, Edition 1. (In Persian)
7. Bonenberg, W., 2015, *Public Space in the Residential Areas: The Method of Social Spatial Analysis*, *Procedia Manufacturing*, Vol. 3, PP. 1720-1727. <https://doi.org/10.1016/j.promfg.2015.07.493>
8. Bulduk, B., 2012, An Analysis of the Use of Urban Furniture in City Advertising in Terms of Aesthtic/ Visual Appreciation Training: City Design, Social and Behavioral Sciences, Vol. 46, PP. 3279-3283.
9. Bulut, Y., and Atabeyoglu, O., 2007, *Fountains as Urban Furniture in Historical Urban Structure and Usage Culture: Erzurum City Case*, *Building and Environment*, Vol. 42, No. 6, PP. 2432-2438.
10. Gibbins, J., and Oberholzer, B., 1991, *Urban Streetscape*, London Publisher: NewYork: Van Nostrand Reinhold.
11. Hamzeh, F., Moeiti, J., and Mortezaei, Sh., 2018, Review and Analysis of Designing and Redevelopment of Urban Furniture in the Direction of Urban Beautification in Different Dimensions with Emphasis on the Development of Tourism and Economic Dynamics in Astara, *Quarterly of Geography*, Vol. 29, No. 1, PP. 129-152. (In Persian)
12. Hekmatniya, H. et al., 2014, The Scale of Development in Urban Areas with an Emphasis on the Satisfaction Level Standards of Urban Furniture (Case Study: Abarkuh Localities City), *Geographical Research of Urban Planning*, Vol. 2, No. 4, PP. 501-519. (In Persian)
13. Hematiyan, N., 2017, *City- Instagram: New Media And Social Understanding Of Public Spaces*, *Urban Management*, Vol. 14, No. 48, PP. 143-158. (In Persian)
14. Karegar, B. et al., 2017, Analyzing Mental Dimensions And Investigating the Effects of Lighting on the Improvement of Urban Settlements (Case Study: Tehran Metropolis), *Urban and Rural Management*, Vol. 3, No. 46, PP. 307-320. (In Persian)
15. Kashanijou, Kh., 2010, *Recognizing Theoretical Approaches to Urban Public Spaces*, *Urban Identity Journal*, Vol. 4, No. 6, PP. 95-106. (In Persian)
16. Kiyani, A., Pasbanisalou, V., and Goharmir, L., 2017, *Analysis of Urban Public Space Using Fuzzy Logic Inference Model (Case Study: Districts 1 And 2, Zabol)*, *Geography and Territorial Spatial Arrangement*, Vol. 7, No. 25, PP. 125-146. (In Persian)
17. Lahmiyan, R., Obori, M., And Barari, M., 2014, *The Role of Urban Furniture in Tourism Expanding Case Study: Sari City*, *Geographical Planning of Space Quarterly Journal*, Vol. 3, No. 10, PP. 102-121. (In Persian)
18. Mahdizadeh, J., 2012, The Role of Urban Furniture in the Quality of Urban Environment, *Urban Planning*, Vol. 19, No. 37 and 38, PP. 6-13. (In Persian)
19. Mohammadi, N., and Taghipour, M., 2015, The Role of City Furniture in the Vitality of Pedestrians in Historical Context (Case Study: Hafezieh and Municipality Street), *Urban Landscape Research Quarterly*, Vol. 2, No. 4, PP. 59-96. (In Persian)

20. Mohammadi, A., and Pishgar, E., 2018, Analyzing Urban Furniture Condition and Measuring Citizens Satisfaction, Case Study: Balikhlichai River Margins, Ardabil, Iran, Geographical planning of space Quarterly, Vol. 8, No. 27, PP. 1-20. (In Persian)
21. Moshiri, R., Rahmani, B., and Eslamirad, Q., 2014, *Comparative Comparison of Landscape of Urban Texture Based on Urban Furniture Indices (Case Study: Behshahr City)*, Geography and Urban Planning of the Zagros Landscape, Vol. 6, No. 19, PP. 81-98. (In Persian)
22. Nigro, H. O., González Císaro, S., 2016, *The Citizen Satisfaction Index: Adapting the Model in Argentine Cities*, Cities, Vol. 56, PP. 85-90. <https://doi.org/10.1016/j.cities.2016.03.010>
23. Parhizkar, F., 2014, The Role of Urban Furniture in Providing Services to Citizens, rah-e-abrigham, Vol. 19, No. 159, PP. 51-52. (In Persian)
24. Poldma, T. et al., 2014, Understanding People's Needs in a Commercial Public Space: About Accessibility and Lived Experience in Social Settings Alter, European Journal of Disability Research 8, PP. 206-216.
25. Pourmohamadi, M., and Kooshaneh, R., 2013, *Evaluation and Analysis of Urban Public Spaces Using Topsis Model (Case Study: Tabriz)*, Urban and Regional Studies and Research, Vol. 5, No. 17, PP. 37-52. (In Persian)
26. Rahmani Firozjah, A., and Sohrabi, S., 2015, *A Sociological Study on the Relationship Between Urban Furniture and Quality of Life*, Urban Sociological Studies, Vol. 5, No. 16, PP. 179-200. (In Persian)
27. Rasidia, M. H., Jamirsahb, N., and Ismail, S., 2012, *Urban Green Space Design Affects Urban Residents Social Interaction*, Social and Behavioral Sciences, Vol. 68, PP. 464-480. <https://doi.org/10.1016/j.sbspro.2012.12.242>
28. Roustaa, M., 2018, Explaining and Analyzing the Resilience Level in the Face of Threats of Insecurity in Border Cities with a Spatial Approach (Sample Study: Zahedan City), Phd Thesis of Geography and Urban Planning, Faculty of Geography and Environmental Planning, University of Sistan and Baluchestan. (In Persian)
29. Shafiei Sabet, N., and Sadat Mirvahedi, N., 2017, Rural Housing Satisfaction Ranking Using the Vikor Technique (Case Study: Varamin County), Vol. 6, No.1, PP. 153-172. (In Persian)
30. Solaymani, A. et al., 2017, The Effects of Urban Design on the Behavior and Morality of the Citizens (Case Study: The Streets of the Imam, Modares and Kashani of Urmia), Geography and Urban Planning Research, Vol. 5, No. 2, PP. 289-314. (In Persian)
31. Wardono, P., and Soelami, F., 2016, *Effects of Luminous Furniture on Mood*, Social and Behavioral Sciences, Vol. 222, PP. 342-350. <https://doi.org/10.1016/j.sbspro.2016.05.178>
32. Wardono, P., and Soelami, F., 2016, *Effects of Luminous Furniture on Mood*, Social and Behavioral Sciences, Vol. 222, PP. 342-350. <https://doi.org/10.1016/j.sbspro.2016.05.178>
33. Yosefzadeh, Z., Parsaei, J., and Afshar, A., 2014, Investigation and Study of Satisfaction of Citizens of the Quality of City Furniture (Case Study: Three and Seven Areas of One Tehran), Earth Science Research, Vol. 5, No. 19, PP. 30-43. (In Persian)
34. Zangiabadi, A., and Noori, M., 2015, A Comparative Analysis of Urban Furniture Urban Parks within the Metropolitan Views of Citizens (Case Study: City of Isfahan), Geography and Environmental Planning, Vol. 26, No. 1, PP. 85-104. (In Persian)
35. Zangiabadi, A., and Tabrizi, N., 2008, *Spatial Analysis of Urban Furniture of the Tourism Area of the Central District of Isfahan*, Journal of Humanities University of Isfahan, Vol. 3, No. 1, PP. 45-66. (In Persian)
36. Ziyaee, M., 2017, *Assessment of Urban Identity Through a Matrix of Cultural Landscapes*, Cities, Vol. 84, 1-11, <https://doi.org/10.1016/j.cities.2017.10.021>.
37. Ziyari, K., Mehdi, A., and Mahdiyian Bahmanniri, M., 2013, Investigating and Analyzing Urban Furniture from the Citizenship Gate and Urban Management Performance (Case Study: Mahabad City), Quarterly Geographical Landscape Zagros, Vol. 5, No. 18, PP. 7-28. (In Persian)

Creative Tourism as a Tool for Urban Development (Case Study: Tabriz City)

Mohammad Hassan Zaal^{1*}, Fereshteh Doosti², Mehdi Ramezanzadeh Lasbouee³

1. Assistant Professor of Tourism Management Group, University of Mazandaran, Babolsar, Iran

2. MA in Tourism Planning and Development, University of Mazandaran, Babolsar, Iran

3. Associate Professor of Tourism Management Group, University of Mazandaran, Babolsar, Iran

Received: 25 April 2018 Accepted: 08 December 2018

Extended abstract

Introduction

Nowadays, visitors have a noticeable tendency to refrain from repeated activities in order to profit from new feelings and experiences. Creative tourism activities have provided an opportunity for tourists to learn more about local skills, expertise, traditions and unique qualities of the places they are visiting. Creative tourism is considered as a new generation of tourism. One participant has voiced the idea that the first generation is “beach tourism,” in which people may come to a place for relaxation and leisure; the second refers to “cultural tourism,” oriented toward museums and cultural tours. “Creative Tourism” involves more interaction in which a visitor has an educational, emotional, social, and participative interaction with the place, its living culture, and the people who live there. They feel like a citizen. The third generation requires that managers develop and recognize the creativity within their city as a resource, and provide new opportunities to increase tourists’ interests. Nowadays, cities are looking for industries that, while boosting the city’s economy, will ensure the comprehensive development of the city. The industries with features such as early return, not major investment (in comparison with other large industries), greenness and the imposition of the lowest environmental costs to the destination, direct and indirect employment, effective role in restoring and reverting to cultural expressions and local handicrafts are one of the best options for modern cities. Given the fact that Iran has some capabilities and limitations in tourism scope and understanding that it has benefited more from the cultural fields and economic conditions, the creative tourism is named as the most desirable type of tourism. Creative visitor are a suitable target market for this country. Despite having wide range of capabilities in the field of creative culture and industry, Iran has a small share of the incomes from contemporary tourism. The weakness of advertising and marketing activities undertaken in the field of tourism has made a major difference between the views of foreign tourists about Iran, Iranian, and their cultures before and after traveling to it. It is worthy to note that favorable geographical conditions in Iran can attract a large number of tourists, increase economic productivity, satisfy the social and recreational needs, and make peace and friendship between nations, as well. Not only Tabriz city is benefitted from a rich cultural and historical background and it has been selected several times as the capital of the state in the past, but there is also a specific ethnicity with a special dialect and a special lifestyle in the country. Unfortunately, this city has suffered from air pollution, abundance of unused museums, mass cultural tourists, and large commercial complexes. Therefore, this city has the necessary conditions for the development of tourism. In this paper, some questions are raised: does Tabriz have the capacity to develop creative

* Corresponding Author, Email: m.zaal@umz.ac.ir

tourism? What are the most effective factors and tools needed to make creative tourism and contribute to urban development?

Methodology

This is descriptive-analytic research. All creativity related variables including creative class, creative economy, creative experience, creative city, and creative tourism has been gathered from various researches. A questionnaire has been arranged and distributed among 60 tourism experts in this city. The statistical population of this study has been selected among tourism experts in the Cultural Heritage Organization, municipality and university professors, experts in the Department of Tourism Development, and experts in the Journal of Cultural Tourism. The respondents filled questionnaires for needed information. Cronbach's alpha test has also been used to measure the reliability level of the collected data. Accordingly, the Cronbach's alpha coefficient is 0.86 which is at an acceptable level.

Results and discussion

According to the results of the analysis, the correlation coefficients of all variables are in the positive significant level. This indicates that creative tourism has a direct significant relationship with all the elements presented by the researchers in this area such as creative city, creative experience, and creative class. In fact, all of these components are part of a whole and meaning together. The creative talent component with an inclination of 72.4% has the highest correlation among other dimensions with creative tourism. The most influential factor in the development of this tourism in Tabriz city is social capital with 50.7%, and then dimension of creative talent with 48% is the effective second factor. This dimension had also the highest correlation among other dimensions. Other dimensions such as quality of life, physical infrastructure and creative experience are 32.1%, 23.6% and 9% respectively. There are effective for creating creative tourism in Tabriz. The results of this study were related to the results of Richards (2011) and Florida (2002) that accordingly stated that social capital such as participation is the most important creative tourism tool for promoting urban development. It can be argued that active participation among urban residents in the private sector with the public sector is essential for promoting the city in terms of social, cultural and environmental dimensions and sustainable urban development. On the other hand, there are other creative tourism tools for development of the city. One of those tools can be presences of the creative class and its strength in all economic, social and cultural affairs of the city. If this class has been powered to carry out their ideas and with their innovation and sufficient capital and by encouraging city officials to be effective in urban affairs, they could turn the city into a creative city.

Conclusion

Based on the findings, the city of Tabriz has been successful in attracting the creative class of the country. If this city can provide the standards of living based on the ideal of creative class, it can be better in the field of tourism development, especially creative tourism. Finally, based on the findings of the researchers, it can be clearly stated that Tabriz has potential for the growth and development of creative tourism. Today, with advancement of technology and the expansion of various social networks and the design of various websites around the world, it is necessary to introduce Tabriz using technology. It is imperative that managers of all fields involved in the tourism industry become acquainted with new types of tourism and accord their development with their needs. With the pervasive advancement of technology and the rapid transfer of information in all over the world and a change in motivations and demands, modern tourists with high general information have sought for diversity. By investing in cultural affairs and the enrichment of urban space and the quality of educational affairs, this city has made impressive strides towards attracting creative classes and developing creative tourism in order to become a creative city.

Keywords: creative tourism, creative city, creative industries, Tabriz city.

References

1. Campbell, C., 2010, *Creative Tourism Providing A Competitive Edge*, Tourism Insights, Vol. 3, No. 2, PP. 55-68.
2. Castro, C. M. D., 2012, *New Technology and Creative Tourism: A Case Study For t City of Porto= As Novas Tecnologias E O Turismo Criativo, Estudo De Caso Da Cidade Do Porto* (Doctoral Dissertation), PP. 1-92.
3. Den Dekker, T., and Tabbers, M., 2012, *From Creative Crowds to Creative Tourism: A Search for Creative Tourism in Small and Medium Sized Cities*, Journal of Tourism Consumption and Practice, Vol. 4, No. 2, PP. 129-142.
4. Ebrahimi, M., 2008, *Creative City Meeting: Concepts, Policies, Case Study of Successful and Unsuccessful Cities*, Tehran University of Science and Technology, Tehran: Niavaran Cultural Center, Pp.70. (In Persian)
5. Florida, R., 2002, *The Rise of the Creative Class, and How It Is Transforming Work, Leisure, Community and Everyday Life*, New York.
6. Ghorchi, M. et al., 2013, *Creative City (Theoretical Foundations and Indicators)*, Tehran University of Science and Technology, Vol. 5, No. 196, PP. 9 -36. (In Persian)
7. Gordin, V., and Matetskaya, M., 2012, *Creative Tourism in Saint Petersburg: The State of the Art*, Journal of Tourism Consumption and Practice Volume, Vol. 4, No. 2, PP. 55-68.
8. Hull, J. S., and Sassenberg, U., 2012, *Creating New Cultural Visitor Experiences on Islands: Challenges and Opportunities*, Journal of Tourism Consumption and Practice Volume, Vol. 4, No. 26, PP. 91-110.
9. Jelinčić, D. A., and Žuvela, A., 2012, *Facing the Challenge? Creative Tourism in Croatia*, Journal of Tourism Consumption and Practice Volume, Vol. 4, No. 2, PP. 78-90.
10. Kalantari, Kh. 2009, *Processing and Analysis of Data in Social and Economic Research Using SPSS Software*, Sharif Publishing, Tehran. (In Persian)
11. Khamachi, B., 2010, *My Tabriz City*, Neda Shams Publications, Tabriz. (In Persian)
12. Kunzmann, K., 2004, *Culture, Creativity and Spatial Planning*, Town Planning Review, Vol. 75, No. 4, PP. 383-404.
13. Landry, C., 2010, *Experiencing Imagination: Travel As a Creative Trigger, A Global Conversation, How to Provide Unique Creative Experiences for Travelers Worldwide*, Vol. 46, No. 3, PP. 33-42.
14. Landry, C., and Hyams, J., 2012, *The Creative City Index: Measuring the Pulse of the City*, Comedia, PP. 36-102.
15. Ostan-As.Gov.Ir.
16. Raymond, C., 2007, *Creative Tourism New Zealand: The Practical Challenges of Developing Creative Tourism*, Tourism, Creativity and Development, Vol. 37, No. 8, PP. 167-180.
17. Richards, G. W., and Raymond, C., 2000, *Creative Tourism*, ATLAS News, No. 23, PP. 16-20.
18. Richards, G., 1999, *Culture, Crafts and Tourism: A Vital Relationship*, Developing and Marketing Crafts Tourism, PP.10-37.
19. Richards, G., 2000, *World Culture and Heritage and Tourism*, Tourism Recreation Research, Vol. 25, No.1, PP. 9-18.
20. Richards, G., 2011, *Creativity and Tourism: The State of the Art*, Annals of Tourism Research, Vol. 38, No. 4, PP. 1225-1253.
21. Richards, G., 2011, *Tourism Development Trajectories: From Culture to Creativity?* Tourism and Management Studies, Vol. 6, No. 6, PP. 9-15.
22. Sasaki, M., 2010, *Urban Regeneration Through Cultural Creativity and Social Inclusion: Rethinking Creative City Theory Through a Japanese Case Study*, Cities, Vol. 27, No. 6, PP. S3-S9.

23. Sharpley, R., 2014, *Host Perceptions of Tourism: A Review of the Research*, Tourism Management, Vol. 42, No. 6, PP. 37-49.
24. Tan, S. K., Kung, S. F., and Luh, D. B., 2013, *A Model of 'Creative Experience' in Creative Tourism*, Annals of Tourism Research, Vol. 41, No. 4, PP. 153-174.
25. United Nations Department of Economic. 2010, *United Nations E-Government Survey 2010: Leveraging E-Government at a Time of Financial and Economic Crisis*, United Nations Publications, Vol. 2, No. 1, PP. 1-13.
26. Wurzburger, R., Pratt, S., and Pattakos, A. (Eds.) 2009, *Creative Tourism, a Global Conversation*, Sunstone Press, PP. 226.
27. www.Amar.Org.Ir.

A Comparative Analysis of Distribution of Selected Urban Health Indices in Ahvaz Metropolis

Majid Goodarzi¹, Nazanin Hajipour^{2*}

1. Assistant Professor of Geography and Urban Planning, Shahid Chamran University of Ahvaz, Iran
2. MA in Geography and Urban Planning, Shahid Chamran University of Ahvaz, Iran

Received: 29 June 2018 Accepted: 08 December 2018

Extend abstract

Introduction

Nowadays it is important to mention that the acquisition of sustainability in the development process involves human being to ensure the health of the environment. Accordingly, the health component of the United Nations Development Program (UNDP) is highlighted as one of the main sources of human security in assessing the status of the country's progress and development. Health is the state of full enjoyment of physical, psychological and social conditions. It should not merely consider the absence of illness. This definition of health is a positive concept based on a social model of health treating health as the natural right of human beings and sees it as a natural right to all social groups. On the other hand, the conceptualization of health is based on the medical-based model. Meanwhile, in light of the worrying and growing threat of citizens' health, urban and health planners propose a relatively new "Health Planning" reform which seeks to link the urban environment with the physical and mental health of the urban population. To strengthen the decisions on some key issues such as urban environmental health, social welfare can improve quality of human life. Ahwaz City, as the most populous city of Khuzestan Province, has been slowly growing in recent years. It has experienced many demographic and physical changes due to natural population growth, migrant acceptance, expansion of services, provincial capital headquarters, social, economic and social changes. Therefore, because of its population density in recent decades, Ahwaz suffers from problems such as unemployment, poverty, lack of services and urban infrastructure, unequal access, environmental pollution, exhausted texture, informal housing, low quality of life, and so on. This process made imbalanced flow of services and facilities and raised the issues of social justice, spatial justice and urban sustainability. To this end, the present study seeks to adapt the urban health indices in the metropolitan city of Ahwaz. The significance of this problem is due to the fact that the city, according to the World Health Organization (WHO), is one of the most polluted cities in the world and has endangered the health of its citizens. Apart from discussing environmental issues, the difference in the availability of facilities and indicators of urban health among Ahwaz is another threat to citizens' health.

Methodology

The present study is a descriptive-analytical research in terms of its nature, and theoretical-practical in terms of the research method. In this research, two types of library studies using articles, dissertation, internet, comprehensive and detailed plans of Ahwaz, etc. and field studies were employed to collect data and information of indicators. In the present study, by

* Corresponding Author, Email: n.hajipour94@gmail.com

investigating health indices presented by the World Health Organization (WHO), we identified the indicators and indices for Ahwaz. For the aim of this study, which considers Ahwaz urban health indicators and urban health indices were compiled via primary screening. We have extracted 28 indicators whose degree of repeatability is more than other indices. The statistical population of this study is the population of seven municipalities of Ahwaz. To analyze the data for the comparative evaluation of urban health indices, the PROMETHEE decision making model and fuzzy inference system were used in MATLAB software.

The PROMETHEE method: This technique, outlined first by Jean-Pierre Brans and Bertrand Mareschal in 1986, is used for enriching evaluations. The PROMETHEE technique is one of the MADM methods and as an efficient model using two preferred words to choose the best option.

Fuzzy Inference System: generally speaking, it has a fuzzied input, a knowledge database providing the rationale necessary for the process of reasoning, and as the main stage of analysis, which is burdened with the task of approximate reasoning and fuzzy inference in the form of fuzzy rules (if = then) on the inputs of the model in its various stages. In the next step, the output of each step is used as the input of the next step until the last fuzzy output of the system is extracted. In the next step, final values are obtained through the non-fuzzy operation for the primary components and the base components (the research indices and components).

Results and discussion

In the PROMETHEE method applied to the regions, priorities were finalized based on three (positive, negative, and pure) streams. According to the results, districts 2, 3 and 1 have the highest positive flow and the lowest negative value, while districts 4, 7, 6, 5 and 8 have net negative flow due to positive and negative flows. In the following, the method determines urban health indices according to the 8 districts of Ahwaz City based on the score of 1+ and 1. Indices with a score as + 1 are at the appropriate level and indices with a score of as -1 are at the inappropriate level. The results of creating rules in the fuzzy system in the Matlab environment also indicate that rules 14, 15, 17, 18, 23, 24, 26, and 27 are true for Ahwaz. This means that the rate of development of Ahwaz's urban health indices is moderate, low and very low. That is the low and very low membership indices in Ahwaz.

Conclusion

As the results illustrate, there are differences between the urban districts of Ahwaz in terms of the status of healthy indicators and indices such as climate conditions, urban accesses, employment status, etc. These are inappropriate as compared with other indices. In order to establish the spatial justice and equal access of the citizens of Ahwaz to the facilities, we presented suggestions including consideration of environmental issues such as quality of habitats, climate pollution, crime reduction, organization of urban exhausted texture and marginalization, increase of facilities and infrastructure services, increase of per capita municipal services, etc.

Keywords: comparative analysis, urban health, PROMETHEE Method, Fuzzy System, Ahwaz Metropolis.

References

1. Abdi, B., 2014, Investigating the Role of Social Factors in Inequalities of Health Levels Among Citizens of Tabrizi, Ph.D. in Sociology of Economics and Development, Tabriz University. (In Persian)
2. Alyson, L., and Sarah, C., 2013, Place Shaping to Create Health and Wellbeing Using Health Impact Assessment: Health Geography Applied to Develop Evidence-Based Partice, Journal Health and Place, Vol. 24, No. 13,PP. 20-22.

3. Amanpour, S., Hosseini Shahpariyan, N., and Maleki, S., 2017, *Spatial Analysis of Enjoyment Level of Urban Services in Ahvaz Metropolitan Areas with an Emphasis on Social Justice*, Quarterly Journal of Geographic Research of Urban Planning, Vol. 4, No. 3, PP. 495-517. (In Persian)
4. Amini Foskhodi, A., 2005, *Fuzzy Logic Inference in Regional Planning and Development Studies*, Journal of Science and Development, Vol.2, No. 17, PP. 40-60. (In Persian)
5. Amini, N., Yadollahi, H., and Inaloo, S., 2006, *Health Ratings of the Provinces of the Country*, Quarterly Journal of Social Welfare, Vol. 5, No. 20, PP. 27-48. (In Persian)
6. Arab Halvaei, A. M., 2009, *Application of Preemiate Methods in Police Decisions*, Two Human Development Monthly Police, Vol.6, No. 48, PP. 53-63. (In Persian)
7. Attar, S., 2002, *Fuzzy Logic in Knowledge Builder*, A White Paper in: [http:// Elsevier.Com](http://Elsevier.Com).
8. Babaei, N., 2003, *Social and Health Policy*, Social Welfare Magazine, Vol. 3, No. 10, PP. 201- 232, (In Persian)
9. Barton, H., and Tsourou, C., 2000, *Healthy Urban Planning*, Spon Press, London and NewYork.
10. Corvalan, C., Kjellstrom, T., and Briggs, D., 2002, *Health and Environment Indicators in Relation to Sustainable Development*, Environmental Health Perspectives. Vol. 10, No. 5 PP. 656-660.
11. Demari, B., 2013, *Urban and Health Management*, Social and Cultural Affairs Department of Tehran Municipality, Tisa Publishing, Tehran. (In Persian)
12. Faraji Sabokbar, H. A. et al., 2011, *Prioritization of Entrepreneurship Development in Rural Areas Using Prometheistic Technique (Case Study: Suburb Districts of Central District of Khodabandeh County, Zanjan Province)*, Human Resource Research, Vol.43, No. 75, PP. 53-56. (In Persian)
13. Faraji Sabokbar, H. A., 2016, *A Model for Assessing the Quality of the Natural Environment of Rural Areas Using Knowledge Based Systems*, Rural Research and Planning, Vol. 5, No. 1, PP. 1-18. (In Persian)
14. Firoozi, M. A., Nemati, M., and Daripour, N., 2014, *Measurement and Evaluation of Quality of Life Indices in the Omidieh Housing Plan*, Journal of Geography and Environmental Studies, Vol.3, No. 11, PP. 49-62. (In Persian)
15. Flood., J., 1997, *Urban and Housing Indicators*, Urban Studies Journal, Vol. 34, No. 10, PP. 1635-1665.
16. Ghadami, M., 2013, *Quality of Life in Small Cities, Emphasizing on the Dimension of Individual and Social Health*, Quarterly Geography and Environmental Planning, Vol.24, No. 1, PP. 33-55. (In Persian)
17. Gholamian, M., 2009, *Survey of the Social Demographic Situation of the City with the Healthy City Approach Case Study: Babol City*, Msc Thesis, Geography and Urban Planning, Payame Noor University. (In Persian)
18. Hompson, S., 2007, *Health Planning Forum*, Presented by Premier's Council for Active Living for PIA, UNESCO (United Nations Educational, Scientific and Cultural Organization) Institute for Statistics.
19. Hompson, S., 2007, *Health Planning Forum*, Presented by Premier's Council for Active Living for PIA, UNESCO (United Nations Educational, Scientific and Cultural Organization), Institute For Statistics.
20. Horton, R., 2009, *Global Science and Social Movements: Towards a Rational Politics of Global Health*, International Health, Vol. 1, No. 1, PP. 26-30.
21. Hosseini Shahparian, N., 2015, *An Analysis of Spatial Justice with an Emphasis on Urban Public Services in the Metropolitan Area of Chaharahuaz*, Master Thesis, Geography and Urban Planning, Shahid Chamran University of Ahvaz. (In Persian)
22. Kalroozi, Z., 2016, *Measurement of Spatial Differences of Socio-Economic and Physical Components of Urban Health in Tehran Metropolis*, Master's Thesis, Geography and Urban Planning, Payame Noor University of Tehran. (In Persian)

23. Kiani, A. et al., 2015, Fuzzy Inference System Application in the Field of Human Development Assessment: Parsabad County, Geography and Urban Area, Vol. 6, No. 19, PP. 1-16. (In Persian)
24. Kingdon, C., 2008, *Sociology for Midwives*, Quay Books Division, MA Health Ltd.
25. Marmot, M., 1999, *Social Determinants of Health: From Observation to Policy*, Medical Journal of Australia, Vol. 172, No. 8, PP. 379-382.
26. Mcdade, T., Adair, W., and Linda, S., 2001, *Defining the "Urban" in Urbanizaon and Health: A Factor Analysis Approach*, Social Science and Medicine, USA.
27. Mehdi, A., 2011, Surveying and Analyzing Health and Access to Health Indicators in Marginalized Neighborhoods (Case: Shadgoli Khan Neighborhood, Qom City), Master's Thesis, Faculty of Geography, Tehran University. (In Persian)
28. Mehdi, A., Pourahmad, A., and Hataminejad, H., 2014, The Study and Analysis of Health-Life and Availability of Health Indicators in Slum Neighborhoods Case Study: District of Shadgholikhan in Qom City, Geography and Planning Quarterly, Vol. 18, No. 49, PP. 259-293. (In Persian)
29. Mirsardo, T., 2014, *Social Capital and Urban Health (Case: Garmsar City)*, Journal of Social Development Studies, Vol. 6, No. 3, PP. 88-95. (In Persian)
30. Naghdi, M. R., 2014, An Analysis of Social Inequality and Spatial Justice in the City, Seventh Iranian Geopolitical Union Congress- Political Geography, Kharazmi University of Tehran. (In Persian)
31. Pesyan, V., Nami, M. H., and Tavakoli Naghmeh, M., 2017, *Survey and Measurement of the Impact of Socioeconomic Factors on Urban Health (Holy Ghost City)*, Quarterly of New Attitudes in Human Geography, Vol. 9, No. 3, P. 42. (In Persian)
32. Rahnamaee, M. T., 1990, *Geography Department*, Ministry of Housing and Urban Planning. (In Persian)
33. Ronald Mac, G. et al., 2015, *Healthy Toronto by Design: Promoting a Healthier Built Environment*, Public Health, Vol. 106, No. 1, PP. Es5-Es8.
34. Tajdar, V., 2009, *Analysis and Measurement of Health Status with Urban Planning Approach (Case: Mashhad Metropolis)*, Master's Thesis for Urban Planning Urban and Regional Planning, Tarbiat Modares University of Tehran. (In Persian)
35. Tajdar, V., Rafieian, M., and Taghvaaee, A. A., 2010, *Measurement of Health Component in Mashhad Metropolis from Urban Planning Perspectives*, Journal of Fine Arts, Architecture and Urban Development, Vol. 4, No. 41, PP. 101-110. (In Persian)
36. Uwe, D. et al., 2003, *Improved Urban Management*, World Bank Policy Research Working Paper, Washington. DC.
37. Webster, P., and Mccarthy, P., 2002, Health Indicators, WHO Healthy Cities Technical Working Group on Health and Indicators, [http:// Euro.Who.Int](http://Euro.Who.Int).
38. WHO/CSDH., 2005, *Towards a Conceptual Framework for Analysis and Action on the Social Determinants of Health*, Draft Discussion Paper 1.7. (A Later Version from 2006 Exists), World Health Organization, Geneva.
39. Ziari, K. et al., 2017, An Investigation and Analysis of Environmental Indicators Affecting Urban Ecological Health in Qom Metropolis, Journal of Geography and Urban and Regional Development, Vol. 7, No. 25, PP. 19 -38. (In Persian)

Analysis of the Factors Affecting Urban Space Commodification from Citizens' Perspectives (Case Study: Tabriz City)

Saber Sedighi^{1*}, Roghayeh Salek²

1. PhD Student in Geography and Rural Planning, Shahid Beheshti University, Tehran, Iran

2. PhD of Geography and Rural planning, Shahid Beheshti University, Tehran, Iran

Received: 01 September 2018 Accepted: 19 December 2018

Extended abstract

Introduction

Commodification of space means that space is constantly being produced and reproduced as a means of production for profit. Metropolis of Tabriz in recent years have been severely subject to commodity space due to the rapid population growth, the land and housing stock exchange, the privatization of public spaces, the expansion of vacant houses and inflation. Nowadays, uncontrolled land use change is one of the major challenges of the agricultural section of Iran. Hence, a big part of agricultural lands and also forest lands turned out of production cycle and natural resource. Mahmoudabad town as one of the agricultural areas of Iran is not an exception. Tourism especially in recent years caused intensification of land use change, house selling and production, place and tourism town production. These cases make rural areas of Mahmoudabad town as a commodity that tourism can buy it and use it as they want. The purpose of this study is to analyze the factors affecting the urbanization of Tabriz urban space. The main objective of this investigation is to recognize the second home tourism economics, as well as social and environmental factors affecting intensification of space commodification process in that area.

In economics, a commodity is an economic good or service that has full or substantial fungibility: that is, the market treats the goods as equivalent or nearly so with no regard to who produced them. The price of a commodity good is typically determined as a function of its market as a whole: well-established physical commodities have actively traded spot and derivative markets. Most commodities are raw materials, basic resources, or agricultural products such as iron ore, sugar, or rice.

Space commodification means that we can buy and sell the space for profits in the market. Actually space commodification notifies that land house and places are commodity. In this way, in addition to space, , culture and environment of space are also commodifying.

Methodology

The research method applied in this study was descriptive-analytical. This research analyzed economic, environmental and social-cultural variables affecting space commodification. In this study, three hundreds and seventy nine questionnaires are completed in Mahmoudabad town level. SPSS 22 software was employed to analyze the data extracted from the questionnaires.

Results and discussion

Based on the results, many different factors specially bank system, tax system and government policy had very negative impacts on town farming and production process. Among the bank factors, increase in interest rate can lead to serious damage to agriculture and pressure to farmer.

* Corresponding Author, Email: sabersadighi1371@gmail.com

Tax system cause attraction of more visitors to buy and sell land and take more profit from construction. There is no tax system about land selling and land buying expensive cars and houses. Government generally don't help producers of rice and more help tourism and speculative. Therefore, we have attempted to propose suitable solution by recognizing these factors.

Keywords: space commodification, banks and tax system, government policy, Tabriz.

References

1. Azimi, N., 2006, *Structural Changes in Tabriz City*, Geographical Space, Vol. 1, No. 4, PP. 1-23. (In Persian)
2. Chalabi, M., 2007, *Social Analysis in Action Space*, Ney, Tehran. (In Persian)
3. Harvey, D., 1990, *Between Space and Time: Reflections on the Geographical Imagination*¹, Annals of the Association of American Geographers, Vol. 80, No. 3, PP. 418-34.
4. Harvey, D., 2016, *The Ways of the World*, Profile Books.
5. Harvey, D., 2016, *The Ways of the World*, Profile Books.
6. Harvey, D., 2018, *The Limits to Capital*, Verso Books.
7. Heidegger, M., 1996, *Being and Time: A Translation of Sein Und Zeit*, SUNY Press.
8. Hossein Zadeh Delir, K., Ghorbani, R., Shokri Firoozhahah, P., 2009, *Quality Analysis and Evaluation of Urban Sustainability Measures in Tabriz City*, Urban and Regional Studies and Researches, Vol. 1, No. 2, PP. 1-18. (In Persian)
9. Lefebvre, H., 1991, *The Production of Space*, Translated by Donald Nicholson-Smith.
10. Lefebvre, H., 2004, *Rhythmanalysis: Space, Time and Everyday Life*, A and C Black.
11. Lobao, L. M., Hooks, G., and Tickamyer, A. R., 2007, Editors, *The Sociology of Spatial Inequality*, SUNY Press.
12. Marx, K., 2006, *Capital: A Critique of Political Economy*, Penguin UK; 2004 Feb 5.
13. Mohammadzadeh, M., 2005, *Modernity and Urbanism: An Analysis of the Old Texture of Tabriz City*, PhD., Specialized in Geography and Urban Planning, Tabriz University. (In Persian)
14. Nicel Yilmaz, S., 2006, 'Commodification' of Cities: Promoting Izmir (Turkiye), As a World City, 42nd Isocarp Congress.
15. Piketty, T., 2018, *Capital in the 21st Century*, In *Inequality in the 21st Century*, Routledge, PP. 43-48.
16. Safiyan, M. j. et al., 2011, *Phenomenological Study Hermeneutics Comparison of Architectural Location*, Philosophical Research Journal of Tabriz University, Vol. 5, No. 8. PP. 93-129. (In Persian)
17. Sedighi, S., 2013, *Municipalization of Capital: The Second Cycle of Capital Accumulation in the Production of Artificial Artifacts*, The Translation of the Aghavi Moghadam, Aref, DAT Publishing, Tehran. (In Persian)
18. Sedighi, S., 2016, *Comparative Comparison of the Concept of Space Time in the Islamic System and Capitalism*, The First National-Student Congress on the Operation of Islamic Economics in the Bed of Iran, Imam Sadiq University, Tehran. (In Persian)
19. Sedighi, S., 2016, *The Commodification of Geographic Space in the Capitalist System*, The Sixth Iranian-Islamic Progress Conference, Tehran. (In Persian)
20. Shafiee Sabet, N., and Sedighi, S., 2016, *Explaining the Quality of Localization of the Place in the Capitalist System*, Transformation Studies in the Humanities, Vol. 4, No. 6, PP. 34-60. (In Persian)
21. Sharepour, M., 2016, *Right to City and Urban Public Spaces*, Quarterly Specialist Research Center for Cultural Heritage and Tourism, Vol. 1, No. 2, PP. 52-68. (In Persian)

22. Sonders, P., 2013, *Social Theory and Urban Issues*, Translation by Mahmoud Sharipour, Tisa Publishing, Tehran. *(In Persian)*
23. Taban, M., Pour Jafar, M. R., and Pourmand, H. A., 2011, *Identity and Location; Phenomenological Approach*, City Identity, Vol. 6, No. 10, PP. 79-90. *(In Persian)*
24. Zali, N., Alilu, M., and Azadeh, R., 2014, *An Analysis on the Capacity of Tabriz Metropolis Capacity with Emphasis on Modern Patterns of Urban Development*, Quarterly Journal of Urban Planning and Research, Vol. 5, No. 19, PP. 73-90. *(In Persian)*

Assessment of the Effective Factors to Determine the Capacity of Building Density in Historical Areas (Case Study: Urmia City)

Asghar Abedini^{1*}, Reza Karimi²

1. Assistant Professor of Urban Planning, University of Urmia, Iran

2. MA in Geography and Urban Planning, Urmia, Iran

Received: 06 November 2018 Accepted: 28 January 2019

Extended abstract

Introduction

To determine optimal building density, we have to consider the capacities of city and effective indicators. The suitable density is a balance between population, building density and capacity of the city. Several factors are required to determine the density in urban areas. This is affected by natural or physical factors and economic, social and cultural, environmental, technological and national policies of urbanization. Today, non- scientific views to determine the proposed building density of urmia city is purposed with geographical, economic, population, physical, transportation, facilities and environmental features. This causes unethical loading of building density especially in historical areas. It has created problems such as traffic, dominance of buildings, lack of facilities, ghosting and etc. This can also offer practical and scientific methods as a viable solution for solving this problem. In any case, solution of this challenge is comprehensive and require multi-dimensional look to determine the building density in the historical area. In other words, optimal building density can show the physical identity of historical areas of Urmia city. To determine the density, it depends on privacy of historical monuments and capacity of historical areas effective indicators in the determination of density. The purpose of this study is the modeling of building density in historical areas of Urmia city on the basis of its capacity.

Methodology

This is an applied research with a descriptive-analytical methodology. Collection of information is conducted through library and field studies. After studying related references with building density, effective indicators are applied to determine building density for the historical areas of Urmia city. We have selected 10 indicators from different effective factors on building density to analyze the data. These indicators are population density, road width, plot area, number of floors, building density, the average price of land, existence of green space, existence of arid lands, existence of sewage facilities and privacy monuments. These effective indicators in determining building density have different importance factor, so in this research it has been used from elite opinions in order to determine the weight (importance factor) of indicators via AHP in Expert Choice. The compatibility of the pairwise comparison is 0.08 and acceptable for further analysis. In order to perform spatial analysis, the information layers have been digitized and edited in GIS and converted into Raster in Idrisi Selva and Global Mapper. Standardization of indicators has been conducted via Boolean method and Fuzzy functions according to the relation of each indicator with the goal of research. In next step, indicators have been combined for measuring the capacity of building density in Urmia city.

* Corresponding Author, Email: as.abedini@urmia.ac.ir

Tel: +989141873260

Results and discussion

According to the results of AHP method, the maximum weight of 0.320 is related to privacy of historical monuments indicator and the minimum weight of 0.033 to the existence of arid lands. After extracting the weight of indicators, of information layers has prepared in GIS for standardization of layers. The obtained results from combination of the 10 indicators show that 9% of historical areas in terms of the capacity of building density have low capacity of density, 18% have middle capacity of density, and others have high capacity of density. Application of these scientific methods can help urban experts and managements to offer ideal density model for loading of building density in the historical areas. The ideal density model is a model to adjust densities in different aspects including image of city, balance in urban services, order in traffic and etc.

Conclusion

Creation of new buildings with an optimal building density with maintaining physical identity of historical areas depend on the respect for the privacy of the historical monuments, the capacity of historical areas and effective indicators. Measuring the capacity is a fundamental principal in dealing with urban issues used in determining ideal density. . Therefore, given the effective indicators in determining density and measuring the capacity of historical areas in Urmia city, it can be acknowledged that the areas have the capability for increasing density based on capacities and privacy of historical monuments.

Keywords: building density, capacity, historical area, Urmia.

References

1. Adabkhah, M., Poorjafar, M. R., and Taghvaei, A. A., 2003, *Surveying the Status of Building Density and the Proposed Model Determined F.A.R According to the Road Network (Case Study: Neighborhood of Elahieh in Tehran)*, Journal of Fine Arts, Vol. 13, PP. 16-31. (In Persian)
2. Ahmadi, H., and Sheikh Kazem, M. R., 2006, *The Role of Building Density Planning in Reducing the Damage Caused by the Earthquake*, The Second International Conference on Crisis Management in Natural Disasters, Tehran, PP. 1-11. (In Persian)
3. Armanshahr Consulting Engineers, 2006, *Strategic Studies of the Worn Out Textures of Urmia City*. (In Persian)
4. Azizi, M. M., 2009, *Density in Urbanism*, Tehran University, 4 Th Editions. (In Persian)
5. Chan, Y. S., and Liu, M. M., 2018, *Effects of Neighborhood Building Density, Height, Greenspace, and Cleanliness on Indoor Environment and Health of Building Occupants*, Building and Environment, Vol. 145, PP. 213-222.
6. Fathi, S., Alalhesabi, M., and Behzadfar, M., 2017, *Given the Need for Planners to Create Physical Integrity - in Areas of High Social, Reflecting the Development of the Region as an Area Around the Cities of Tehran Municipality 22*, Urban Management, Vol. 15, No. 47, PP. 219-254. (In Persian)
7. Help of Idrisi Software. (In Persian)
8. Hoseini, M. H. et al., 2013, *Offer a Way to Determine the Maximum Building Density Residential in Scale of Residential Parts*, Studies of Urban Management, Vol. 4, No. 31, PP. 27-40.
9. Joshi, K., and Kono, T., 2009, *Optimization of Floor Area Ratio Regulation in a Growing City*, Regional Sciences and Urban Economics, Japan, Tohoku University, NO. 39, PP. 502-511.
10. Karimi, A., Delavar, M. R., and Mohammadi, M., 2009, *Determine the Optimal Urban Density Model Via Using the Land Information System (LIS) (Case Study: Esfahan- Khomeinishar)*, Journal of Fine Arts, Vol.1, No. 37, PP. 17-26. (In Persian)
11. Logistics and Design Consulting Engineers, 2018, *Detailed Studies of Urmia City*. (In Persian)
12. Malchefski, Y., 2013, *GIS and Multi-Criteria Decision Analysis*, Translation by Parhizghar and Ghafari, 3th Edition, Samt Press. (In Persian)

13. Mirzaee, S. et al., 2018, *Neighborhood-Scale Sky View Factor Variations with Building Density and Height: A Simulation Approach and Case Study of Boston*, Urban Climate, Vol. 26, PP. 95-108.
14. Mohammadi, J., Mobaraki, O., and Saberi, H., 2010, *Evaluation the Effective Elements in Determining the Urban Density from Environmental Opinion Case study: Isfahan Metropolis*, Fourth International Congress on Islamic World Geographers, Zahedan, PP. 1-13. (In Persian)
15. Nesari, R., Montazeri, R., and Hoseinzadeh, N., 2015, *Sustainable Financial Resource Supply Strategy in Tehran Municipality in the Five-Year Plan, with Emphasizing on Communications Policy of Resistance Economics*, Quarterly Journal of Economics and Urban Management, Vol. 3, No. 11, PP. 99-116. (In Persian)
16. Oh, K. et al., 2005, *Determining Development Density Using the Urban Carrying- Capacity Assessment System*, Landscape and Urban Planning, No. 73, PP. 1-15.
17. Pan, X. Z. et al., 2008, *Analyzing the Variation of Building Density Using High Spatial Resolution Satellite Images: the Example of Shanghai City*, Sensors, Vol. 8, No. 4, PP. 2541-2550.
18. Partovi, P., and Pezhmanfar, S., 2011, *Sustainable Building Density Analysis Model (Case Study: The City of Urmia (Range of Daneshkadeh Street))*, Letter of Architecture and Urbanism, Vol. 5, No. 10, PP. 47-68. (In Persian)
19. Rezayi, M. R., Hoseini, M., and Hakimi, H., 2012, *Strategic Planning of Crisis Management in the Historical Context of Yazd City Via SWOT Model*, Crisis Management, 1, No. 1, PP. 35-44. (In Persian)
20. Sarvar, H., Mobaraki, O., and Amiri, S., 2010, *Surveying the Effect of Increasing Building Density on the Transport Network of Historical Context of Tabriz City*, Vol. 2, No. 4, PP. 115-143. (In Persian)
21. Sholeh, M., 2008, *Explaining the Concept of Density as a Urbanism Tool in Housing Schemes*, Studies of Urban Management, Vol. 6, No. 21, PP. 35-44. (In Persian)
22. Sorkhili, E., Rafieyan, M., and Bemanian, M. R., 2012, *Surveying the Abuse Motivations of Additional Building Density Construction in Tehran*, Urban Management, Vol. 10, No. 30, PP. 145-162. (In Persian)
23. Taghvaie, A. A., and Rezayi Rad, H., 2012, *Management of Vertical Development Via Model Potentiometric Load Building Density Model by Using OWA in GIS*, Studies of Urban Management, Vol. 4, No. 9, PP. 1-13. (In Persian)
24. Taherkhani, H., and Motavaseli, M. M., 2006, *Management of the Historical Context of Iran Cities (Challenges and Strategies)*, Urban Management, Vol. 5, No. 18, PP. 96-107. (In Persian)
25. Teymoori, M., 2010, *Urban Landscape and Concern of Building Density Increasing in Historical Context*, National Conference on Urban Landscape, Tehran, PP. 1-6. (In Persian)
26. UNDP, 2007, *Capacity Assessment Methodology, Capacity Development Group*, Bureau for Development Policy.
27. Wang, H., Shi S., and Rao X., 2013, *A Study of Urban Density in Shenzhen, the Relationship between Street Morphology, Building Density and Land use*, Proceedings of the Ninth International Space Syntax Symposium, Seoul.
28. Wu, Q. et al., 2011, *Urban Building Density Detection Using High Resolution SAR Imagery*, Joint Urban Remote Sensing Event, Munich_ Germany, PP. 45- 48.
29. Zabet Mahboob, H. R., 2011, *Evaluation the Principles and Criteria of Urban Density Distribution in Iran and Presenting the Distribution Model in Density (Case Study of Rasht City)*, International Imam Khomeini University, Qazvin. (In Persian)

Evaluation of Environmental Quality and Satisfaction of New Residential Settlements (Case Study: Tohid Shahr Sabzevar)

Mahdi Zanganeh^{1*}, Sakineh Abdolmalaki², Maryam Sadat Mousavi²

1. Assistant Professor of Geography and Urban Planning, Hakim Sabzevari University, Iran

2. MA in Geography and Urban Planning, Hakim Sabzevari University, Iran

Received: 04 November 2016 Accepted: 03 November 2018

Extended abstract

Introduction

The rapid growth of cities and their structural development have caused various problems in urban life such as environmental problems and decline in the environmental quality. The quality of urban environment is a multidimensional concept. As one of the important aspects of life quality, it can have many effects in the life of residents. This concept can also have commonalities with other concepts like quality of the place, perception of residential satisfaction and dissatisfaction of residents from living places and so on. The importance of urban environment is for the fact that all urban problems have an environmental quality component. Therefore, the evaluation of urban environment quality and the satisfaction of residents are indispensable to recognize the environmental quality status and to perform procedures to improve it and present appropriate environmental quality patterns for new developments which are formed by preplanning and programming. Accordingly, Tohidshahr in Sabzevar has been selected as one of the preplanned environments and the quality of urban environment in this town has been evaluated.

Methodology

This study is conducted as an applied and developmental research through a descriptive-analytic and survey-method. For collecting the required data, we have used questionnaires. The samples of the study have been selected from the residents of Tohidshahr in Sabzevar. They are ranged in 18-70 years old. Based on the Cochran sampling formula, the participants are 374 persons which explored individually. The random sampling method is used to identify the participants. The procedures like factor analysis and Pearson correlation coefficients are used for analysis of the data. In addition, GIS software is used for complementing the analysis and pictorially presenting the data.

Results and discussion

For doing factor analysis, at first the items were categorized into nine indexes and then they were subdivided into three dimensions of environmental quality (objective, subjective and objective-subjective) (objective) and then the factor analysis procedure was run. The values of KMO tests for objective, subjective and objective-subjective environmental quality were 0.789, 0.813 and 0.813, respectively. For exploring the satisfaction rate and the degree of environmental quality, at first the Pearson correlation coefficient was estimated among the variables. Based on the results obtained from the correlational matrix tables, we can state that there was a positive relationship among the variables. Factor analysis for residential quality in

* Corresponding Author, Email: M.zanganeh@hsu.ac.ir

the subjective, objective and their mixture was conducted in three stages. In the final stage, all the indices were combined into nine categories.

Some factors have been able to account for the variables of the study. The factors are as following: The first factor, i.e., satisfaction with the spatial-physical structure, has accounted for 6.872 % of variation; the second factor, i.e., feeling of satisfaction of living in the town, has 13.6 % of percent variation; the third factor, i.e., dissatisfaction with abnormal behaviors in the town, with 20.0%; the fourth factor, i.e., satisfaction with family relations and sense of community in the town, with 26.296%; the fifth factor, i.e., satisfaction with housing space, with 31.906%; the sixth factor, i.e., satisfaction with public transportation services, with 36.738%; the seventh factor, i.e., the extent of sense of belonging to the town, with 41.272%; the eight factor, i.e., satisfaction with the vision and nature of the town, with 45.268%; the ninth factor, i.e., satisfaction of security, with 48.495% and collectively the objective-subjective residential satisfaction with 48.495 % of variance.

The satisfaction rate from the viewpoints of Tovhidshahr residents based on the factor analysis revealed that objective dimension with the value of 56.97 is higher than the subjective satisfaction rate with 46.75 percent. In the combined indexes, the highest level of satisfaction refers to the physical and environmental index with 0.577 percent and the lowest rate is related to the social pathologies with 0.126 percent. In addition, based on the obtained map of environmental quality, the objective dimension has the lowest satisfaction rate with 2.73 percent value and the subjective dimension with 3.36 percent value. Generally the objective-subjective quality has a moderate rate with 3.47 percent value.

Conclusion

Satisfaction with life is a subject related to other issues like environmental quality. Since one of the objectives of urban planners is to enhance the satisfaction rate of residents regarding their living environment, the various dimensions must be considered to reach such an objective. Therefore, the environmental quality indexes, as introduction to the dimensions and various features in living environment, can be used to analyze the satisfaction of residents from their physical and social environment. The findings of the study indicate that the satisfaction has a moderate rate. In addition, it has been found that Tovhidshahr, which is created by preplanning to account for the future overpopulation of Sabzevar, has not been able to attract the optimal satisfaction rate of the residents.

Contrary to the common expectation, there is no direct relationship between the objective and subjective conditions. The satisfaction in the objective dimension is low and in the subjective it is higher. Consequently, the research hypotheses are not confirmed. In explaining the satisfaction rate of residents from their living condition, it can be stated that based on the field investigations, it was recognized that residents are unsatisfied with some influential features on the quality of urban environment or have problems in using these assets.

According to the theoretical principles and the findings of the study, it can be argued that the viewpoints towards the quality of urban environment in the frameworks of the subjective and objective views can present two different views of the quality of urban environment and the satisfaction rate. Therefore, adopting more practical and logical decisions for improving the quality of urban environment is impossible unless close relations with residents is established and their cooperation based on the principles of optimal urban government is sought about the quality of urban environment of their living condition. Finally, it is suggested that the residents must be consulted regarding the procedures which can improve the quality of their living environment and, thus, can in turn enhance their satisfaction rate.

Keywords: Tohidshahr, residential environment, satisfaction, environmental quality, objective and subjective.

References

1. Bahraini, H., 2007, *Urban Design Process, Fourth Edition*, Published by Tehran University, Tehran. (In Persian)
2. Bramley, G., and Power, S., 2008, *Urban form and Social Sustainability: The Role of Density and Housing Type*, Environment and Planning B: Planning and Design, Vol. 36, No. 1, PP. 30-48.
3. Choguill, C, L., 2008, *Developing Sustainable Neighborhoods*, Habitat International, Vol. 32, No. 1, PP. 41-48.
4. Costanza, R., 2007, *Quality of Life: An Approach Integration Opportunities*, Human.
5. Das, D., 2008, *Urban Quality of Life: A Case Study of Guwahati 2*, Social Indicators Research , No. 88, Environment, Vol. 17, No. 1, PP. .297-310
6. Eziyio, N., and Iben, D. A., 2013, *Subjective Life Satis Faction in Public Housing In Urban Areas of Ogun State, Nigeria*, Vol. 35, No. 1, PP. 51-61
7. Foo, T. S., 2000, *Subjective Assessment of Urban Quality of Life in Singapore (1997- 1998)*, Habitat International, Vol. 24, No. 1, PP. 31-49
8. Ge, J., and Kazunori, H., 2006, *Research on Residential Lifestyles in Japanese Cities from the Viewpoints of Residential Preference, Residential Choice and Residential Satisfaction*, Landscape and Urban Planning, Vol. 78, No. 3, PP. 165-178.
9. Gifford, R., and Steg, L., 2005, *Sustainable Transportation and Quality of Life*, Journal of Transport Geography, Vol. 13, No. 2, PP. 59-69.
10. Golkar, K., 2001, *The Quality of the Urban Environment Magazine Platform Components Manufacturer*, Martyr Beheshti University, Vol. 11, No. 32, PP. 38-68. (In Persian)
11. Goodey, B., 1993, *Two Gentlemen in Verona: The Qualities of Urban Design*, Streetwise, Vol. 4, No. 2, PP. 3-5.
12. Jacobs, A and Appleyard., 1987, *Toward An Urban Design Manifesto*, JAPA, Vol. 53, No. 1, PP. 112-120.
13. Kaplan, S., and Kaplan, R., 1982, *Human Scape: Environments for People*, Ann Arbor, Ulrich's Books.
14. Khademolhosseini, A., Mansourian, H., and Sattari M. H., 2010, *Subjective Quality of Life in Urban Areas*, Geography and Environmental Studies Quarterly, Vol. I, No. 3, PP. 45-60. (In Persian)
15. Khaksari, A., and Rohani, A., 2014, *Sustainable Transport to Improve the Quality of Urban Environment with an Emphasis on Historical Textures, Case Study: Comparison of the Historical Center of Mashhad and Freiburg*, Quarterly, Urban Development Planning, Vol. 1, No. 1, PP. 52-73. (In Persian)
16. Leen, Y. J., 2008, *Subjective Quality of Life Measurement in Taipei*, Journal Building and Environment, Vol. 43, No. 7, PP. 1205-1215.
17. Leng, J., 2009, *The Creation of Architectural Theory-The Role of Behavioral Science in Environmental Design*, Visual Translation of the Oven, AR, Fourth Edition, Published by Tehran University, Tehran. (In Persian)
18. Marais, L., and Ntema, J., 2013, *The Upgrading of an Informal Settlement in South Africa: Two Decades Onwards*, Habitat.
19. Marans, R. W., and Couper, M., 2000, *Measuring the Quality of Community Life: A Program for Longitudinal and Comparative International Research*, In: *Proceedings of the Second International Conference on Quality of Life in Cities*, Vol. 2, Singapore, Needs and Subjective Well-Being, Economics, Vol. 15, No. 61, PP. 267-276.
20. Meshkini, A., Sajadi, G., and Tafakori A., 2011, *The Impact of Government Housing Policy, Land Tenure and Physical Development of Citiesin Kermanshah Case Study*, Journal of Geography and Development, Vol. 9, No. 23, PP. 47-67. (In Persian)

21. Owen, K., and Wong, D., 2013, *An Approach to Differentiate Informal Settlements Using Spectral, Texture, Geomorphology and Road Accessibility Metrics*, Applied Geography, Vol. 38, No. 1, PP. 107-118.
22. Porteous, J., Douglas, J., 1971, *Design with People*, The Quality of the Urban Environment Environment and Behavior. Journal Environment and behavior, Vol. 3, No. 3, PP. 155-175.
23. Poursarajiyani, M., 2015, *Historical Neighborhood Values and Measures for Changing it from the Realities of Residents*, Journal Bagh Nazar, Vol. 35, No. 12, PP. 25-39. (In Persian)
24. Rafieian, M., and Molavi, J., 2011, *Approaches And methods For measuring the Quality of Residential Environment*, The First Edition, Published By lightning, Tehran and Preparation Space, Period, Vol. 7, No. 3, PP. 19-38. (In Persian)
25. Rafieian, M., Asgari, A., and Asgarzade Z., 2009, *Citizen satisfaction With the residential Environment*, Journal of Environmental Sciences, Vol. 16, No. 1, PP. 57-68. (In Persian)
26. Rezaee, M., Moazen, S., and Nafar, N., 2014, *Satisfaction and Alysis of Environmental Quality Indicators in New Cities Jumping, Case Study New Town Parand*, Journal of Geography, Urban Planning, Vol. 2, No. 1, PP. 31-47.
27. Rossouw, S., and Pacheco, G., 2011, *Measuring Non-Economic Quality of Life on a Sub-National Level: A Case Study of New Zealand*, Journal of Happiness Studies, Online First, Vol. 13, No. 3, PP. 439-454.
28. Sajjadzadeh, H., Ezadi, S., and Haghi, M., 2016, *Strategies for Promoting the Quality of the Environment Informal Settlements Based on Residents, Views, Case Study: Hesar Neighborhood in Hamedan*, Journal of Ecology, Vol. 1, No. 42, PP. 81-96. (In Persian)
29. Schmit, R., 2002, *Considering Social Capital in Quality of Life Assessment: Concept and Measurement*, Social Indicators Research, Vol. 58, No. 3, PP. 403-428.
30. Sedaghatnia, S. et al., 2013, *An Evaluation of Residents Quality of Life Through Neighborhood Satisfaction in Malaysia*, Environmental Management and Sustainable Development, Vol. 2, No. 1, PP. 114-125.
31. Seik, T. F., 2000, *Subjective Assessment of Urban Quality of Life in Singapore (1997-1998)*, Journal of Habitat International, Vol. 24, No. 1, PP. 31-49
32. Shahabiyan, P., Saeed Pour, S., and Piraye Gar, M., 2013, *Residential Satisfaction Measurement Residents Mnzryh (New Tissue) and Residents Sister of Imam (Old) in Rasht*, Journal of Manipulating the Environment, Vol. 7, No. 24, PP. 41-62. (In Persian)
33. Shokrifirouzjah, P., 2013, *Study Factors Influencing Citizen Satisfaction with the Quality of Residential Environment (Case Distics 8 of Tabriz)*, Journal of Geographical Space, The Fourteenth Year, Vol. 14, No. 47, PP. 67-82.
34. Statistical Center Of Iran, Census. 2016. (In Persian)
35. Usamah, M. et al., 2014, *Can the Vulnerable Be Resilient? Co-Existence of Vulnerability and Disaster Resilience: Informal Settlements in the Philippines*, International Journal of Disaster Risk Reduction, Vol. 10, No.1, PP. 178- 189.
36. Van K. et al., 2003, *Urban Environmental Quality and Human Well-Being Towards a Conceptual Framework and Demarcation of Concepts*, Landscape and Urban Planning, Vol. 65, No .2, PP. 5-18.
37. Williams, K., Burton, E., and Jenks, M., 2000, *Achieving Sustainable Urban form*, Spon Press, London and New York.
38. Zarei, M., and Salehi, M., 2013, *Assess the Quality Of the Physical Environment in Urban Areas, with Emphasis on the Role Of social Capital incase of aligholi agha neighborhood*, Journal Of urban and Regional Research, Vol. 5, No. 18, PP. 155-174. (In Persian)