

Assessment of Correlation between Built Environment and fear of Crime in the “Mehr” Housing Project (Case Study: Pakdasht County, Iran)

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Extended abstract

Introduction

Nowadays, crime is one of the core problems in human societies, especially in cities. This is a problem that human community with all the advances and abilities failed to control up to now. Criminologists have often considered several factors in criminology theory for instance environment and environmental characteristics that played a crucial role in criminal impetus and motivation in urban spaces. Also, there is theoretical and empirical literature in the field of criminology highlighting noteworthy relationships between several indicators of built environment and crime patterns. The identification of the variables related to crime could allow policymakers in private and public sectors of housing industry to develop improved approaches to combat crime by developing better strategies and policies for proper planning and design. The “Mehr” housing project is one of the most recent projects undertaken by the Ministry of Roads & Urban Development. Despite the main aim of the project which is to accommodate low income citizens, recent studies demonstrated that the living condition in this housing project is not satisfactory because it was formulated and developed regardless of safety and security aspects of built-environment quality. The purpose of this research is to identify those effective factors contributing to environmental safety and crime in Mehr public housing, e.g., in the Imam Reza Pakdasht in the Tehran City, Iran, where the houses are not safe and secure the low quality of environment.

Methodology

This study has a descriptive – analytical research method. For this purpose, two groups of objective and subjective factors are used to test the hypothesis of this research. Data have been obtained from questionnaires distributed to a randomly selected sample of 384 respondents. The sample number has also been determined by using Cochran formula. Additionally, the interview

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technique was applied to gather data from the residents. Hence, factor analysis and linear regression are used to analyze the data obtained through questionnaire and field survey. As the first step of analysis, indices of environmental safety and crime are discussed. The indices have been classified into objective and subjective groups. It should be noted that this study mainly focused on the subjective indices than the objective ones. In the next step, factor analysis has been used for the analysis. KMO test is equal to 0.811, which made it possible to continue of the analysis using factor analysis. The factor analysis has been used to develop the four factors affecting "environmental safety" including: physical factors, social structure, satisfaction factors, and safety factors.

Results and discussion

The last step of the analysis is related to identification of the underlying factors which affect the extent of environmental safety. These factors are evaluated through the use of other criteria such as the expanse of migration and level of economic hardship and poverty. For this purpose, linear regression was used. Furthermore, the results of this study have revealed that these factors are directly related to environmental safety and crime. The physical factor has defined more than 23% of the variance of the total data to indicate how many physical factors affect the crime in the Mehr housing complex. The lack of attention to the environment design and its role in the emergence of social issues is one of the most prominent features of the complex. The second factor has explained only 15.67 of the total variance that show significant difference. Satisfaction is defined by the variables of satisfaction of housing, satisfaction of income, dissatisfaction of access to services and dissatisfaction of housing. This has indicated that life satisfaction is always one of the important factors in preventing crime and social harm. Due to the low level of security in the Mehr housing complex, the existence of this factor (security) was not expected. The low level of interactions and the lack of police in the complex are the most important items increasing the crime.

Conclusion

The results of this study suggest that poverty of the residents as objective factor and physical conditions as subjective factors are the most significant variables contributing crime in Mehr public housing. Additionally, these results are in accordance with those previous researches that concluded that the communities with low efficacy in social indicators such as social cohesion, stability of the population, and family disruption are likely to record more crime. Furthermore, relationships in physical qualities of built environment including high-density, inappropriate access to network, existence of ruined and abandoned areas emphasize on this fact that our opinion about the correlation between built environment and crime is more plausible.

Keywords: crime, urban environment, poverty, Pakdasht, Mehr Housing.

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Identification of Spatial Planning Pattern for Makran Coastal Areas with an Approach to Sustainable Regional Security and Development (Case Study: Chabahar and Iranshahr County)

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Extended Abstract

Introduction

Access to the sea has always been one of the important factors for development of the countries. It is thought that having access to free waters is a necessary condition for a global power. As Alfred Tayer Mahan (1840-1914), one of the paramount American theorists, said that "the power of the sea" was the basis of national strength and it was important to the theory of naval power and its strategy. It was able to make significant changes in the US Navy's policy. The success of some countries such as Britain owes to hacking the hierarchy of governments. Mahan provided solid historical evidence that the emergence and survival of the great powers in the world has always been dependent on the power of the navy through the relative superiority of the seas. Eventually, it can be concluded that ruling on the world involves dominance on the seas. The purpose of this study is to provide a model for the land use planning in the coastal areas of Makran Sea based on the existing potential and challenges in Chabahar, Jask, and Konarak with a sustainable regional development and security approach. Therefore, the main objectives of this research are as follows:

- planning for the pattern of landlocked coastal areas of the Makran Sea with a sustainable regional development and security approach;
- Investigating the opportunities and strengths in providing the pattern of landlocked coastal areas of the Makran Sea with sustainable development approach;
- Identification of Makran Competitive Dimensions to other parts of the region;
- Assessing resources and capabilities of the region based on resource-based view;
- Providing effective environmental factors beyond the control of the spatial organization of the region;
- Providing a strategy of suitability between resources and capabilities and external factors;
- Providing internal and external development strategies;

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Methodology

The present study is conducted by descriptive-analytical method. The combined methods have been used for this research. For this purpose, documentary and library studies have been used by a survey method to employ Delphi questionnaire for surveying experts in the field through quantitative and qualitative analysis. The purpose of this study is to provide a model for land locking of the coastal areas of Makran Sea with an approach to security and sustainable regional development.

This research is a multi-stage process that seeks to achieve an optimal pattern. In the first part of the study, we have initially evaluated the four factors of weakness, strength, opportunity and threat in the form of SWOT quality model. Then, for the interpretation, the hierarchical analysis process method was used in Expert Choice software environment. To do this, all four factors have been extracted, coded, processed and weighted. To determine the significance of each criterion, they have been included in the form of 7 indicators of interpretation. To analyze the results, a questionnaire has also been used to analyze the opportunity and strength of the study area. To study the internal strengths and outbound points of the subject, the threats and weaknesses have been identified. The results have been incorporated into the Meta SWOT model and software. The development strategy map and security model have been derived from inward and outward factors. Spatial statistics and spatial analysis methods have also been used in ArcGIS software to show the status and land space and spatial distribution of resources in the study area.

Conclusion

For more than two decades, policy makers, planners and experts in Iran have considered different planning methods such as regional, spatial and land use planning, while emphasizing on the capabilities and resources of the geographical areas and comprehensive development. The plans are mainly based on regional equilibrium in natural, economic, social, cultural and political fields through formulation of desirable and endogenous strategies in national arena. In Iran, like most of the economies and societies, several regions have a major responsibility for generating income and production, have public services and economic prosperity, and can influence other areas. It should be acknowledged that inequality and deprivation are a direct threat to the security of a society and any development planning without considering the public interest and planning to overcome inequality cannot be taken. Balanced and coordinated development of the regions is a very important prerequisite for achieving sustainable economic development and integrated development of the country (Matric & sevic, 2001). In the exploratory approach to the regional development process, the balance of development and the balanced arrangement of activities in space are of particular importance. Regional inequalities are emerged from two main areas: first, the natural conditions of each geographic region and, secondly, the views of decision makers and economic planners. It is noteworthy that advances in technology reduced, the importance of the first factor and the importance of the second factor has been increased. Therefore, decision makers and planners play the most essential role in creating regional inequality. According to the results of this research, some suggestions can be proposed: increase in the use of positive capacities and potentials and removing deficiencies; strengthening the defense and security infrastructure of the region in order to preserve and protect the country's territorial integrity; creating appropriate platforms and equal opportunities for creation of endogenous growth and development in order to achieve regional equilibrium; Maintaining the values and benefits of the region by using cultural, educational and economic capacities; assigning budget lines from government and nongovernmental credit resources to promote regional development indicators; emphasizing cultural-religious affiliations and strengthening the convergence, identity and national integrity to preserve the unity and social cohesion of the region; development of public and private investment in the regional industry sector in line with comparative and competitive advantages; organizing a settlement network between province centers, towns and villages of the region; special attention to development especially in the border regions of the region; determining the national and transnational role of

the province to the sea-based economy; providing necessary facilities for the effective role of the country in the field of international transit; agricultural development in terms of water resource constraints in the region; fulfilling and implementing necessary measures for the prosperity of tourism in the region; effective and constructive interaction with neighboring countries and expansion of economic and international cooperation.

Keywords: spatial planning, social security, international cooperation, Chabahar.

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Suitable Areas for Urban Physical Expansion Emphasizing on Geomorphologic Factors (Case Study: Dezful City)

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Extended Abstract

Introduction

Cities are the areas for population concentration all over the world. Urbanization and urban growth are accounted as main indicators of economic growth and development of countries. As the population is increased, the cities experience rapid physical growth. To determine suitable areas for urban development, geomorphological indicators have always been of great importance. Initial site selection of cities has been conducted in the shade of geomorphologic units and geomorphologic processes. Certainly, expansion and development of cities can be confined to geomorphologic features. In fact, geomorphologic attributes of a geographic place not only affect distribution or concentration of human activities, but they are also accounted as effective factors to shape spatial constructions. Overall, the effects of geomorphologic features on a city may be categorized in site selection, urban physical expansion, urban growth directions, urban morphology and urban constructions. Thus, planning for development of rural and urban settlements regardless of geomorphologic indicators and identifying natural environment potentials will not be practically successful.

Dezful city such as many cities of Iran is continuously encountered with population growth. Population of this city from 52121 in 1956 has increased to 264709 in 2016; in other words, during this period of 55 years, annual average population growth rate was 2.88 percent. Regarding continuity of population increase in Dezful city and inevitable urban physical development, it is of great importance to find suitable areas for future development. In the way to determine suitable directions for urban development, a main job is to study geomorphologic indicators. Hence, present research has investigated geomorphologic indicators in Dezful City and its surrounding areas to map suitable directions for future urban development.

Methodology

To identify potentials and limitations of urban physical development of Dezful in surrounding areas of the city in respect of geomorphological parameters, we selected eight main geomorphological indicators including slope, fault, lithology, height, river, land use, slope direction, and distance from other main settlements. At first, the condition and attributes of these indicators were considered in sub-province and city scale, and related maps were produced using GIS. The comparative importance of the mentioned geomorphological parameters was calculated based on experts' viewpoints. Then, suitability of lands in surrounding areas of the

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city in eight geographic directions including north, northeast, east, southeast, south, southwest, west and northwest was comparatively analyzed in respect of each geomorphologic indicator. These comparative analyses were done through pairwise comparisons using Analytical Hierarchy Process (AHP) and Expert Choice software. In this way, the comparative suitability of each geographical direction for urban physical development relative to each geomorphological criterion was calculated. Then, the scores were combined to gain all scores of geomorphological parameters for each direction and calculate the composite scores for geographical directions. Based on these composite scores, the geographical directions were ranked and, finally, the most suitable directions for future urban physical development of Dezful city were determined in terms of geomorphologic indicators.

Results and discussion

Among the eight geomorphologic indicators, two indicators of 'slope' and 'fault' gained the highest importance coefficients. The lowest coefficients belonged to the indicators of slope direction and land use. The result of comparative analyses of geographic directions in terms of geomorphologic indicators showed that directions of east, west and northwest are more favorable than other alternatives with regard to slope. In the indicator of fault, direction of northeast and east are more suitable. The directions of west and northwest are preferred directions with regard to lithology. Comparison of alternatives in respect of height showed priority of northeast and northwest directions. In the indicator of distance from other main settlements showed priority of east, south and southeast for urban development. In indicator of land use, directions of east and northeast were determined as suitable development directions. Comparative evaluation of eight alternative directions based on indicator of distance from river showed that the axes of south and southeast have better condition and, finally, in indicator of aspect, southeast area is more suitable direction.

To determine preference values of criteria and relative scores of alternatives for each criterion, the priority scores of alternatives synthesized based on Analytical Hierarchy Process (AHP); then, the scores of each geographic direction was resulted as follows: east 0.189, northwest 0.158, west 0.149, northeast 0.135, north 0.121, southeast 0.097, south 0.085, and southwest 0.065. The inconsistency ratio of comparative analyses was at acceptable range.

Conclusion

As mentioned, we analyzed surrounding areas of Dezful city in terms of geomorphological indicators including slope, fault, lithology, height, river, land use, aspect, and distance from other main settlements to determine suitable areas for future urban physical development; using experts' viewpoints, comparative analyses were done by applying AHP. The preference values of these criteria are 0.312, 0.312, 0.118, 0.076, 0.049, 0.033, 0.024 and 0.076, respectively. Therefore, among the geomorphological indicators of this research slope and fault acquired the highest preference values. Then, urban peripheral areas in all directions were analyzed in terms of the geomorphological indicators. The best directions for future urban physical development in each criterion based on pairwise comparisons are as follows; slope: east, west and northwest; fault: northeast; lithology: west and northwest; height: northeast and northwest; distance from other main settlements; east, southeast and south; river: southeast and south; land use: northeast and east; aspect; southeast.

We have combined preference values of the criteria and those of geographical directions in each geomorphological criterion in order to calculate overall preference values of geographical directions for urban developments. In this regard, directions of east, northwest and west gained the scores of 0.189, 0.158 and 0.149, respectively. Thus, these directions are determined and proposed as preferred areas for urban development.

Keywords: urbanization, urban physical development, geomorphology, Dezful city.

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Explaining the Spatial Pattern of Rural Good Governance in Karaj Metropolitan

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Expanded Abstract

Introduction

Rural good governance is a comparative approach that can be realized through behavior, regulation, institutionalization of accountability, popular participation, transparency, legality, accountability, and consensus. Therefore, rural good governance can be defined as the interaction between authorities and planners both in macro and micro levels for local communities with people who are affected by developmental programs.

The studies on the good governance of the rural area suggest a greater attention to the sociological view of governance and that spatial dimension has been less considered. The concept of rural governance, especially its spatial dimension can be considered as a comprehensive approach to sustainable rural development, since the sustainable development approach would lead to empowerment, capacity making, increase of participation and confidence building, expansion of communication networks of villagers inside and outside the village environment, and institutional development.

Methodology

This study aimed to explain the spatial pattern of rural good governance in the villages of Karaj Township in Iran with a practical nature using a survey and documentary approach. Required data are 35 rural governors, 503 Islamic rural councils and 533 rural householders who have been selected based on classification sampling during a multi-stage process. Validity of the questionnaire was evaluated using the comments of 53 experts and its reliability was verified using Cronbach's alpha test for different scales. The Chi-square test was used to determine the difference in the agreement and disagreement ratios in the components of the research.

The purpose of this present study is to explain the spatial pattern of rural good governance in local government (Rural Governor & Rural Islamic council) around Karaj metropolitan and to provide practical solutions to the achievement of a sustainable local government. The analysis of their strengths and weaknesses has been implemented to answer these questions. How spatial distribution and the level of good governance are organized in local governments? What kind of rural governance does the spatial pattern follow in the local governments?

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In this research, we used PROMETHEE and ANP techniques for spatial distribution and rural governance of local governments. In order to investigate the relationship between the factors affecting rural governance and the spatial pattern of rural good governance in the study area, we have used linear regression model and coefficient of determination (R²) technique. To assess the model conditions, the suitability of the fitted model was examined using variance analysis and coefficient of determination of the model.

Results and discussion

The results of the research show that 53%, 25% and 22% of the studied villages enjoy good, medium and weak levels of rural governance, respectively. The results of rural good governance in local governments indicate that participation, transparency, accountability and consensus have been the most important affecting indices on local governments. The equity, efficiency and effectiveness, accountability and legitimacy have been the weakest indices.

The relationship between the variables affecting rural governance and good governance indices indicates that the related variables, whether they do exist or not, play a significant role in the rural governance level in the area of study.

As a result, there is a significant relationship between the variables including village size, physical development of the village, the level of development and plurality of infrastructure in one hand and good governance indices on the other hand. The results of the research show that the most decent form of rural governance is distributed in the central district. The good governance has a decreasing trend. Of course, the spatial distribution of rural governance does not follow this pattern in some cases according to rural good governance indices. The factors in Karaj are including household and population, dominant economy, economic diversification, access to various opportunities, the extent and severity of land playgrounds, tourist attraction, the location of the Chalus Road and the important factors affecting extent of desirability or inappropriateness of good governance indicators in the studied villages. In good governance, rural good governance enjoys more favorable situation from north (mountains) to the south (plains). The governance spatial distribution has inclination towards a centralized or clustered pattern based on good governance indices.

Conclusion

In rural good governance approach, spatial processes have a special place and influence over other economic, social and institutional processes. Given the significant spatial distribution of good rural governance indicators in the study area, attention should be paid to the impact of spatial approach to rural governance on the planners of rural development agenda.

The relationship between the variables affecting rural governance and good governance indicators indicates that having or not having spatial variables plays a significant role in the rural governance level of the study area. The city and the countryside as a geographic space have been changed by the inter conversion of the spatial and physical elements. The spatial functions of the city and the villages have significant differences, which are the result of the nature of the place and the spirit governing their space. For this reason, the nature of village and city relations is a valuable place in development programs, especially spatial planning. In rural good governance approach in the dimensions of spatial governance, vertical and horizontal coordination of strategies can provide the spatial development of rural areas. The physical and spatial changes of villages in recent decades have been affected by the rapid acceleration of urbanization versus rural migration, especially in the metropolitan areas of rural communities, with fundamental qualitative and quantitative changes. Therefore, study about urban rural links and their effects on these links and trends on rural areas with regard to good governance is one of the important findings in this research.

Keywords: local governance, sustainable local governance, rural good governance, spatial pattern, Karaj metropolitan.

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Selection of Suitable Sites for Installing CCTVs to Realize Smart City (Case Study: Zanzan City)

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Extended Abstract

Introduction

Security as the necessary condition for urban life can be increased where the level of social, cultural and economic interactions and relationships will be greater. In recent society, there is a possibility of confusion of the security of individuals by various social, political and economic factors. Today cities with all modern facilities are not able to provide peace and security to the citizens. Due to high concentration of the population and activities outside the human scale and the frequency of cars, they gradually diverge from the indicators of peace and security of the urban environment. Planning for the problems in today's complex and multi-dimensional digital and new smart technologies can be facilitated. There are a number of security issues and concerns in the cities involves use the benefits of smart city technology to find and adopt solutions for them. The concept of smart city, as the next stage in the process of urbanization is the political agenda of governments throughout the world. Given this issue and increase in the number of vehicles in the city, the need for increased safety of citizens requires the use of modern technologies including CCTVs. The purpose of this study is to investigate the appropriate areas of surveillance cameras in Zanzan in order to realize the smart city. The main issue here is to determine the most suitable location for installing video surveillance cameras with the smart city landscape in Zanzan.

Methodology

This research has a descriptive and survey-based method due to its practical nature. The data have been collected by field survey. In the first step, using spatial survey and urban maps, spatial information of urban cameras has been taken. In the second step, the information is included in ArcGIS 10.2 software. Then, the coverage radius of each of the cameras is extracted (50 meters), and in subsequent spatial analyses, the missing points are specified. After specifying the criteria and sub-criteria using previous studies literature and experts' opinion in

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the field, input maps are created in the software. Then, using the AHP method, we conducted weighting and combining layers for optimal locations for the installation of CCTV cameras based on their priorities. After combining the layers, the proposed final map was selected according to the criteria for new CCTV cameras, and their priority was identified.

Results and discussion

Changes in technology, in the one hand, and changes in the level of citizens' expectations of urban management on the other have shown the inability of traditional management systems in the cities of Iran more than ever. Given the basic needs of citizens in urban environments including securing public spaces is one of the most important issues that should be emphasized by managers, planners and city officials. The experience of successful countries in this area is moving towards smart cities and integrating urban management. Today, security of public spaces are increased by installing CCTV cameras for the reasons including the cost-effectiveness of the physical presence of police, feeling of being seen and, consequently, the increase in security and reduction in crime and insecurity, feeling of investment by citizens and, in general, increased satisfaction of life. The results of this present study confirm the results of the researches by Deisman et al. (2009); Welsh (2007); and Kitchin (2016) as they stated the need for scientific site selection for installing new cameras to increase security. In terms of prioritization of privacy and public safety and the public's view of installing CCTV cameras, the results of this study are consistent with those reported by Sargolzaei and Ebrahimzadeh (2018), Gates (2010), Avilez et al. (2014), and Deisman et al. (2009). Also, on the relationship between the installations of CCTV cameras with the realization of the smart city, the results are in line with the results of the researches by Vanolo (2014), Coletta et al. (2017), Hall (2010), Batty et al. (2012), and Kitchin and Dodge (2017).

Conclusion

One of the new technologies to improve the safety and security of cities against the dangers is the use of CCTV cameras. Optimizing the location of city-centric cameras in the city can increase the efficiency of using these technologies. The present research was carried out in the first step of the city's current situation regarding the establishment of urban surveillance cameras. The results showed that some areas of the city lacked adequate coverage and are out of the monitoring area of urban cameras. The different areas of the city for the deployment of new cameras were analyzed using four main criteria of user, physical, natural and demographic criteria. In the next step, using the AHP model and fuzzy logic in the GIS environment, 25 subcategories were analyzed in total of the four main criteria with each other. Using existing situation analysis, recognizing outside areas of cameras coverage, and assigning values to the sub-criteria in each of the main criteria, the areas that were susceptible to deploying CCTV cameras were determined. In the last step, using the method and fuzzy functions in GIS, the criteria and sub criteria were combined and the final map was extracted. The final map shows the areas required to install new cameras in a categorized fashion. The obtained results indicated that the city's central and middle areas still have a higher priority for installing city-centric cameras, yet they are prone to setting these cameras. The indicators in this study were examined as elements of urban open system. The results indicate that the distribution pattern of surveillance cameras is not proportional to the extracted urban indicators. Therefore, the need for proper and comprehensive planning in the zoning of Zanjan's CCTV cameras, as well as the installation of other new technologies as inevitable necessity in smart cities, seems to be necessary for having a smart city. The final point is that urban digital cameras, along with other urban actions including educating citizens, immunizing, raising awareness and using day-to-day knowledge, can help improve the security and safety of cities.

Keywords: CCTVs, site selection, GIS, smart city, safety and security.

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Analysis of Women Desirable Urban Space Structure with Emphasis on the Security in Iranian-Islamic City (Case Study: The Mehdolghadam Neighborhood of Urmia City)

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Extended Abstract

Introduction

Urban spaces are shaping social relations and cultural heritage. Thus, urban spatial structure and formation in the presence of men and interactions of them is very impressive. To realize urban development to improve the economic situation, social and cultural life of society, it is required to have the formation and strengthening of civil security. Sense of security among the most important issues in any society is the precondition for any political system and social life. One of the most important aspects of security of a healthy society is peaceful and ideal social security of women. The presence of women in urban areas and especially in the Islamic urban spaces is highly important. According to the tenets of Islam, women in urban areas are of their inalienable right. Women living in cities are affected by actual or potential conditions of community. Islam attaches great importance to personal and social security. Safe urban spaces for people, especially women in Islamic society, is one of the basic necessities of urban planning, particularly urbanism in the Islamic Iran. This study is an analysis of urban spatial structure of old neighborhoods of Urmia (neighborhoods Mehdolghadam) to assess the characteristics of Islamic Iranian city and determine the desirability of the neighborhood structure of urban spaces in relation to the security needs of women. Thus, the purpose of this research is to develop detrimental effects of the presence of women in urban public areas and security of them in these areas. This is to recognize the concepts of security, the structure of urban spaces and public areas, social interactions and also to clarify the role and status of women in the fields of urban public. In this research, we scrutinized and evaluated the emphasis of Islam on women's participation in the society and the priorities and needs of Iranian Muslim women to participate in these areas in the old neighborhood.

Methodology

This research is conducted by descriptive analytical methods and information is gathered by library and field survey. This research is to utilize popular participation of women between 15-65 years old in analyzing the structure of neighborhood spaces with the safety assessment approach in Mehdolghadam, as a neighborhood of Iranian-Islamic city, Urmia. The study area

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is divided into two parts. The evaluation was conducted based on the results of questionnaires. The questionnaires measured indicators and distributed at different times of day and night among women using the spaces. Finally, the raw data obtained from the questionnaires were analyzed using GIS and SPSS software using One-sample T Test and Paired-sample T Test.

Results and discussion

Table 1. The names and description of factors

Index	Name	Description
1	Safety	Urban space structures makes women feel safe or unsafe to live in space
2	Readability	The distinction between the fields of visual communications and height control and Panel transparent market makes navigation easy and the women's sense of safety.
3	Social interaction	Safe spaces in relationship women have with their community.
4	Equity	Access to urban facilities fairly and in a safe space for women.
5	access	In Islamic cities of the neighborhood is closed and the streets deadlock solution for secure and privacy.
6	public oversight	Hierarchical system of urban spaces is the safety of women in urban areas
7	privacy and introspection	Including social control by citizens and neighbors
8	hierarchy of spaces	Mixed Use makes women in urban spaces interact and communicate.

According to the results of one-sample T test, there was a significant relationship between the security index and the women desirable urban space indices. This result was obtained from the measurement of the level of security and other related indicators in two parts of the neighborhood. Using this test, the average of the indices was compared in two parts of the neighborhood. In the end, the results of the research indicate that there is a significant relationship between the selected indicators and the security index in two parts of the neighborhood, up to 99 percent. In the segregated parts of the neighborhood, we are faced with different urban space structures. Thus, the difference in averages is justifiable in two parts. The comparison of the average of the indicators showed that the second part of the neighborhood is better than that of the first part of the neighborhood in terms of security and favorable urban environment for women. In first part, the level of security was low due to the inefficiency of the indicators and their low level of security, but in the second part of the neighborhood, the presence of more significant indicators and high levels of them resulted in higher security in that area.

Conclusion

In this study, we have investigated the relationship between structures of urban space and the sense of security of women in Islamic Iran. These results indicated that there is a significant negative correlation between security and urban spatial structures in Islamic Iranian city and the district had a rather different spatial structure mainly affected by the structural differences in the safety. Finally, security scale in the first part is more than that of the second part. It was also found that the security of women in the first district is less than the second; because it creates inefficiencies index and low levels of security. In this neighborhood, there are nospatial equity and equal access to facilities and municipal services between men and women so that men have a greater share in using municipal services.

Keywords: urban space structure, women, security, Iranian-Islamic city, Mehdolghadam neighborhood of Urmia city.

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Influence of Urban Development Projects on Micro and Macro Urban Spatial Structure, Using Space Syntax (Case Study: Zanjan Zainabiyeh Axis)

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Expanded Abstract

Introduction

One of the important issues in the context of central and physical intervention is on the framework and skeleton of the streets of the main cities, where these actions are carried out only by the goals of the traffic. Studies show that according to physical space, to revitalize the tissues of cities regardless of the social logic of urban spaces give rise to further isolation of the physical and the subsequent economic - socio links. On the other hand, Space Syntax theory holds that urban spaces have social relationships and social goals for the relationship between urban spaces. In order to understand the relationship between urban spaces, we can understand the behavioral patterns using qualitative and quantitative analysis. This theory believes that the main cause of urban spatial configuration is composition of socio-economic pattern and movement in the city.

One of the important development plans within the context of the urban planing is the planning for Zainabiyeh. The project was carried out with the aims of traffic in the center of the city to study the impacts of the project on urban spatial structure and organization. The plan on the scale of the neighborhood was assessed in two periods: before and after the program by Space Syntax.

Methodology

The methods used in this research are created by an analytical – descriptive methodology. Accordingly, the spatial parameters of the theory of space syntax are referred to in two periods: before and after the program in two small-scale Zainabiyeh (local) and macro (city) in terms of urban spatial configuration analysis and evaluation. According to this theory, the structural model is calculated by graph theory. In the present study, the parameters to include integration (global and local), connection, depth, and resolution are controlled. We used Ucl Depthmap version 10 software for analysis of the data.

Results and discussion

In the section, the research findings were agrued in 2 sections including Part I: analysis of the variation of the combined parameters at the Zainibieh neighborhood level. The results initially

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obtained from the mean analysis of parameters at the Zainibieh neighborhood level before and after the implementation of the pedestrian and rider roadmap were extracted using the Depth map software. The average of parameters in expressing the overall status of the parameters is the key value in the analysis of the space syntax indices; therefore, according to the data in Table 1 and Figures 1 and 2, we can say that the mean integrations in the Zainibieh neighborhood after the implementation of the plan for walking and riding (1.302 and 1.424) has increased. The maximum increase in ride access after the implementation of the plan has meant that the Zainibieh access plan has increased for pedestrians and rides, and is particularly well placed for riders with the highest degree of integration. As already mentioned, there is an inverse relationship with integration. Hence, it is reasonable to reduce the depth after the implementation of the project for pedestrian and riding, as the number of routes or the number of directions to reach the most integration line (Zainabiyeh and Saadi axis). However, the control indicator in fact represents the degree of legibility of the network. Thus, the accuracy of the data in the control table after the implementation of the plan in the neighborhood has increased; because the number of choices to reach the desired points has increased. This property is specific to chess patterns.

In the second step, the difference in integration was also assessed to determine the impact of the plan on spatial isolation at the Zainabiyeh neighborhood.

Part II: Assessing the Effects of Zainabiyeh plan on urban spatial structure. This part of the project evaluated Zainabiyeh in the spatial structure of the city. For this purpose, the integration maps of the periods were prepared and analyzed in Depth map software. Data are presented on two main axes (axes Imam and Sadi) in table format at the continuing influence of this project on the structure of the city. This is carried out based on the same data.

Zainabiyeh project can influence the overall structure of the city. The projects addressed two impacts including:

- 1- Change Rank integration impact on the main axes before and after the project;
- 2- Impact on urban development,
- 3- The impact on user change and increase in the value of the property,
- 4- The impact on network performance,
- 5- Effects on the amount of traffic.

Conclusion

Old tissues of cities, as part of the whole urban system, are now the most important problems for the planning and management. New developments in the world in urbanization and the emergence of problems is caused by the old sections of cities more than other parts exposed to adverse effects of urban development. In the city of Zanzan, there are also plans to organize a design based Zainabiyeh as one of the objectives of traffic. This is regardless of the social logic of space and spatial relations, spatial structure and organization. The new problems that until now remained out of sight designers and urban planners are created. Therefore, this study examined the impact of Zainabiyeh based on macro and micro structure of the city. This requires the use of a smart way to be able to analyze spatial relationships. Thus, using space syntax as a new approach in studies and modeling of spatial structure for answering research was conducted in two parts.

The results showed that the impact of the project in the neighborhood scale, although can initially increase the amount of integration, this has led to an increase in the difference in isolation of break physical space in the neighborhood. At the macro level with the slightest variation in the integration of large changes in the spatial arrangement and displacement rank integration between the main axes have been followed. In the sample, Zainabiyeh's design for urban development, property value, land use, pedestrian movement, and traffic situation of the road network has also been affected.

Keywords: development plans, spatial structure, social logic of space, space syntax.

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Assessment of Stability Indices in Urban Transport Using TOPSIS Technique (Case Study: Kermanshah City)

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Expanded Abstract

Introduction

In recent years, attention to the impact of stability indices on transportation, especially in the public sector, has been among the main approaches to assess urban transport systems. This is an important issue, because nowadays we see that most of urban public spaces and streets are heavily dominated by cars due to the complete dependence of people's lifestyle on the automobiles and, hence, the related spaces are of low quality. Therefore, moving towards stability requires the knowledge on the priority and position of the elements of the transportation system in relation to stability indices. In this regard, this research addresses the assessment of stability indices in Kermanshah urban transportation with the aim of prioritizing the ideal options in the transportation system of this city. This paper focuses on public transportation practices. To achieve this goal, four systems of public transportation, i.e. taxis, buses, monorail and walking have been evaluated via 20 indices in the economic, social, physical and environmental aspects.

Methodology

This study was carried out using descriptive methodology. As different indices were used for selecting options, in this research, multi-attribute decision-making methods and TOPSIS technique have been employed for the analyses and evaluations. The statistical community of this research includes all transport experts of Kermanshah, among whom about 45 people were randomly selected according to their cooperation announcement. The data were collected through a questionnaire. Each of the participants was asked a total of 20 questions about the various aspects of the stability. Responses were classified into five point Likert spectrums. After the pre-test process, the related validity and reliability were measured by expert's opinions and Cronbach alpha. To measure the reliability, Cronbach's alpha was used in SPSS software. That was about 0.734. This suggests that the questions in the questionnaire have been internally consistent. The final questionnaires were distributed among at least 45 urban transport experts, including experts in this field and professors with urban planning majors. Finally, about 40 questionnaires were fully collected.

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Results and discussion

A total of 20 indices were evaluated in the four economic, social, physical, and environmental fields to determine the position and priority of four public transportation systems, i.e. taxis buses, monorails and walking. As the indices had different scales in the initial decision making matrices, the normalization methods were used to compare the indices. Since all options were used to increase, we used normalization. The results of the prioritization of the options using the TOPSIS technique showed that the walking option had a higher priority than other options. Taxis and buses are ranked the second in common. Monorail option was also ranked the last. According to the field results, the indices of flexibility in route selection, promotion of social interactions, and the relationship of transportation systems with the environmental and physical axes of the city, like the negative impact of these practices on the biological resources and unplanned and scattered urban growth, had the highest score. It has been important for citizens to choose a system that enhances the vitality of urban space in a city with a high degree of attendance on urban spaces. Among the different transportation systems, monorail had the least importance in terms of the related indices; its low flexibility, being expensive, failed to provide equal access to all classes of the society and all urban spaces, being non-native, and the heavy costs of launching are all the causes that made it unfavorable.

Conclusion

The results of this study showed that the walking option, as the best option compared with other options, had the highest score. High flexibility in choices in the case of walking and the possibility of reducing the cost of accidents and increasing safety are all among the charming reasons that make walking option the most preferable, because walking, in comparison with other options, leads to the formation of quiet, safer and more desirable neighborhoods with more solid social cohesion. The feel of alienation in such neighborhoods is minimized. The options of taxis and buses were ranked the second in common because of the relatively acceptable responses to the demand for travel in urban areas via these communication elements and the existing capacity of urban infrastructure, the acceptance of taxis and buses in relation to the mentioned indices with particular importance. The extensiveness of urban space on one hand and the distance between workplace and living place on the other hand have made these two elements important in the transportation system of Kermanshah. However, monorail as a new element in the urban transport system of Kermanshah, due to its low flexibility versus other options, in one hand and the high cost of it on the other hand, was ranked the lowest compared with other options. Just as the demand for buses and taxis as public transportations is one of the concerns of most citizens for moving on relatively long paths in the city and the suburbs and using them can lead to reduction of using personal cars, walking can also be a desirable option in urban short-distance routes. By reducing the negative and destructive effects of the cars on the urban environment, it can bring about calmness to urban centers and making the city more understandable by citizens. The important point is that, as the results of this paper showed, the combination of these three elements could improve the quality of the urban environment.

Keywords: transportation indices, stability, TOPSIS, Kermanshah City.

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Role of Evolutions and Political Divisions on Urban Development Using SAR Model (Case Study: Golestan Province)

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Expanded Abstract

Introduction

Nowadays, governments and their decisions are one of the most influential factors in formation of habitational hierarchy process and relations. Most of urban planners believe that effective influence of governmental investments in megacities' construction make governments able to affect the growth of medium sized cities through decentralization or aggregation to create a more balanced distribution of urban population and creational- economical endeavors (sarafi, 1998:132). Country divisions, due to its nature and performance, are a type of spatial organization for dividing the country's spaces and would facilitate the sovereignty of the government. In addition, regional preparation programs are present to synchronize the existing resources with different purposes in any environment in order to achieve the best utilization of the equipment available. Golestan province was detached from the Mazandaran province in 1997 and became acknowledged as a new province in the hierarchy system of the country. After that the city of Gorgan as the center of this province has received many enjoyments in sustainable development in all its aspects. The goal of this present study is to evaluate the level of political divisions of the country's effectivity (Golestan becoming a province) on urban development amongst the cities of the Golestan province which is conducted through the descriptive- analytic and field study method. Hence, the main question of the study is that the political divisions of the country have been effective on urban development amongst the cities of the province after detachment of Golestan and acknowledging it as a single province.

Methodology

The methodology in this study is a combination of analytic and discovery methods using field studies and surveying techniques to conduct the evaluation of dispersion coefficients utilizing indicators in the area of economic, social, cultural, political, and environmental structures in the province by multiple objective decision making methods. This was conducted by rating of the areas using the rate of acquiring development criteria for each of these regions. The data collection method is conducted using field study and the main source is the net data information of statistical yearbook of Golestan province. To indicate the total information from families' states, the sustainability principles and criteria of the areas were examined. Eventually, the GIS software was used to demonstrate the locational and spatial results of the study.

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Results and discussion

In order to evaluate the effectivity of developments and political divisions in the Golestan province and the level of its effectivity on urban development, we analyzed the six aspects of development including economic, social, cultural, political, human issues and urban infrastructure development and its effectivity in fourteen townships of this province. In fact, the purpose of this research was to address the impacts of new administrative divisions, by which Golestan become an independent province, on development level and the rate of effectivity of development planings. Based on the SAR method, the Gorgan City as the center of the province with the score equal to 0.6 has the highest level of development and the Kalaleh City with the coefficient equal to 5.24 has the least level of development amongst the cities of Golestan province.

Conclusion

According to the results of the research, it can be conducted that the political administration development and divisions has significant influence on urban development in the Golestan province. This study indicated that multiple objective decision making methods and the analytic model of SAR can successfully evaluate the level of effectivity of new political developments of Golestan province on the development process through six aspects. Finally, based on the SAR method it was determined that the Gorgan City with the coefficient equal to 0.6 had the highest level of development and after that the cities of Bandar Turkmen and Gonbad-e- Kavoos are in the next rates in development. Also the Kalaleh City with the coefficient equal to 5.24 had the lowest level of development amongst the cities of the Golestan province.

Keywords: political development and division, urban development, SAR model, Golestan province.

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Influence of Environmental Factors on Sense of Security in Informal Settlements of Hamedan

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Expanded Abstract

Introduction

One of the concerns in contemporary urban societies is the security problems and families serenity. In fact, we can observe the security effects on property values and environmental quality in various urban neighborhoods. Informal settlements due to the specific economic, social, and physical characteristics are known as one of the hot spots and unsafe areas in cities. Although poverty is known as one of the unsafe main factors in informal settlements, but many crimes and inelegances in this neighborhoods have social, cultural, and environmental reasons. Some crimes such as vandalism, dispute and aggression, and trouble are extremely affected by social and physical conditions. Therefore, improving the environmental situation of informal settlements has a key role in their security. Therefore, it is important that we do physical improvement of informal settlements parallel to resolving the social problems. In fact, if we use physical changes for social improvement such as environmental security, the results will be better in regeneration plans. Therefore, in this research we try to recognize the most important physical problems in informal settlements that influence resident's security and then offer main improvement priorities.

In this research, five informal settlements in Hamedan are as case studies that we extracted perception of their residents about environmental security parameters. We selected these informal settlements because they have many security problems notwithstanding improvement plans. The research hypothesis is that there is a relationship between environmental features of informal settlements and their security. Thus, we try to recognize main priorities of security improvement through assessing environmental security parameters.

Methodology

Research method is based on analytic-expository approach using documents study and field survey. We gained Theoretical framework through library studies and then extracted security parameters. In order to assess the security based on residents' perception, we use factor analysis and linier multi-variable regression methods. Thus, we designed questions based on five-level Likert method to prepare the questionnaires. Based on Cochran sampling test, we considered

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400 questionnaires, the number of questionnaires are 80 for each neighborhood. After completing questionnaires, the questionnaire data are input to SPSS software for factor analysis method. Then, we used linear multi-variable regression method for assessing relationship between extracted factors and environmental security of informal settlements. At the end, we specified environmental security improvement priorities for each neighborhood.

Results and discussion

After completing questionnaires, we input the data to SPSS software to create early data matrix. This matrix has 400 rows (one row per one questionnaire) and 23 columns (one column per one variable). Based on factor analysis method, two variables including Texture Legibility and Street view from Buildings have a score lower than 0.4 in Communality Matrix. Hence, they are not suitable for factor analysis method, so they lay away from variables. Finally, when we run the model with 21 variables, quantities of the variables in Communality Matrix became larger than 0.4 and KMO value became equal to 0.732 in Significance value of 0.000. Thus, these values mean correlation between variables is suitable for analysis.

At the end, the variables are classified in 5 environmental security factors. Sum of aggregation variance of the 5 factors are equal to 62.22. To determine the number of factors, the Rotated Component Matrix is formed that this shows position of variables in each factor and we can do naming and interpreting the factors. These factors include:

The first factor (Strange Abate): This factor explains 15.10 % of total variance and is related to transit of non-native vehicles, workshop and troublous activities, presence of Polis, Graffiti, and garbage collection. The second factor (Texture Discipline): This factor explains 13.83 % of total variance and is related to local commercial land uses, thin and narrow alleys, texture density, and non-seeing areas. The third factor (Socialization): This factor explains 12.51 % of total variance and is related to walking convenience, residences acquaintance, presence of people in spaces, and population density. The fourth factor (Welfare Facilities): This factor explains 11.31 % of total variance and is related to street furniture and sitting places, lighting, local green spaces, recreation and playing places, and signage quality. The fifth factor (Maintenance & Function): This factor explains 9.47 % of total variance and is related to empty houses and lands, ruin buildings, and relief accessibility.

Finally, we specify beta coefficient for the factors through linear multi-variable regression method. Thus, the beta coefficient of the first factor is equal to 0.433, second factor equal to 0.381, third factor equal to 0.347, fourth factor equal to 0.319, and fifth factor equal to 0.370. Finally, we calculated the total score of each neighborhood through multiplying the factor score of each neighborhood and coefficient of beta.

Conclusion

Research findings indicated that Manouchehri neighborhood has tangible strength than other neighborhoods and Dizaj neighborhood has tangible weakness relative to others. Also, we can define some priorities for each neighborhood; thus, priority of Hesar neighborhood is Socialization, priority of Khezr is Texture Discipline, priority of Dizaj is Texture Discipline and Maintenance & Function, priority of Mazdaghineh is Welfare Facilities, and priority of Manouchehri is Socialization. We can also offer following items for improvement of security in informal settlements of Hamedan:

- 1) Streets and sidewalks adjustment,
- 2) Increasing vitality and quality of local public spaces,
- 3) Solidarity and unity of neighborhoods,
- 4) Increasing local services and infrastructures,
- 5) Decreasing neighborhood density,
- 6) Streets hierarchy reformation,
- 7) Lighting and furniture improvement in streets and public spaces,
- 8) Rearrangement of lost space and empty lands,
- 9) Prevalence of local land uses and services,
- 10) Rearrangement and improvement of blocks and open spaces.

Keywords: informal settlement, environmental security, marginality, social disorder, Hamedan.

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