Identification of factors affecting urban viability in Nourabad Mamasani

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Abstract

Today, cities encountered many challenges in the economic, social and environmental problems. For this reason, it is necessary to have the characteristics of vitality for cities, especially metropolitan areas. In such a way that in all development programs, the improvement of the level of the quality of life as a general goal should be considered. Vitality refers to the degree necessary to provide a community based on the needs and capacities of the society. The aim of this study was to identify the factors affecting the vitality of the city of Noorabad Mamasani. The methodology of this research is a combination. The qualitative section involves identifying the factors affecting viability in Noorabad Mamassani through exploring the theoretical and theoretical foundations of research and performing Delphi analysis with the participation of 15 specialist members as panel members. The quantitative section has been determined and analyzed using the New Analytical-Interpretative Structural Modeling (ISM) methodology for the relationship between dimensions and indicators of viability. Finally, using the MICMAC analysis, variables have been identified with respect to the impact and effectiveness of other vitality. The results of this study showed that economic dimensions of variables including sustainable employment, distribution of appropriate transportation infrastructure and adequate housing have the highest penetration power.

Introduction

Today cities with many challenges in the economic, social and environmental problems have been encountered. For this reason, it is necessary to have the characteristics of vitality for cities, especially metropolitan areas in such a way that in all development programs, the improvement of the level of the quality of life as a general goal should be considered. Vitality refers to the degree necessary to provide a community based on the needs and capacities

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of the society. Vitality is one of the recent debates and theories in urban planning, such as the mighty city, the creative city, the city of sustainable, city-centered cities, which lead us to a more desirable city for sustainable living and development.

Materials and methods

The present study is considered as the result of developmental research only because it seeks to design a structural analysis of the factors influencing the viability. It is also considered as an applied research in terms of the purpose of the research. To analyze the data, firstly, by examining the theoretical foundations and research theory, the main and the secondary factors affecting urban viability in Shiraz were identified and developed in a Delphi questionnaire. Then, these indices were examined by members of the Delphi panel and examined by structural interpretation modeling. Interpretative structural modeling is one of the tools that shows the interaction between different variables.

The purpose of this study was to design a Structural Interpretative Model (ISM) to identify the factors affecting the survival of Noorabad Mamassani. To this end, by studying the theoretical and theoretical foundations of the research, the factors affecting the survival rate in Noorabad Mamasani were identified. The following indicators were identified using the Delphi model as well as with the participation of 15 members of the Delphi panel. These indicators include adequate housing, employment, and sustainable income, development of public transport infrastructure, fair distribution of services and facilities, education and quality, leisure, health, identity and sense of place, interactions Social and dignity, security, local communities and participation, cultural and historical factors, beautiful landscapes, parks and green spaces, urban open spaces, and air quality and pollution. In the following, using the new analytical methodology of Structural-Interpretative Modeling (ISM), the relationships between dimensions and indicators of viability were determined and analyzed. And these indicators were ranked. Finally, using the MICMAC analysis, variables have been identified with respect to the impact and effectiveness of other variables.

Results and discussion

In this study, after identifying the factors affecting viability, attempts have been made to create an effective matrix for bioavailability effective layers. In the analysis of the result obtained from the structural interpretation model, it can be stated that the most important factors in the viability of the eleventh, tenth and ninth levels are employment and sustainable income, infrastructure development and public transportation, as well as adequate housing. These factors have the highest penetration power, which is among the key factors of

survival in Noorabad Mamasani, which should be taken into consideration in any decisions regarding the sustainability of Noorabad Mamasani. Level 1 factors include health and education and their quality has the lowest penetration power. In general, according to the results of Mic Mac analysis, it can be stated that the main factors associated with the survivability of the city of Noorabad Mamasani are economic factors. This suggests that the economic dimension is the most important factor in the survivability of the city of Noorabad Mamasani.

Conclusion

According to the results of the MicMac analysis, it can be said that the main factors related to the viability of Nourabad Mamasani city are the economic factors. On the other hand, the results of the MicMac analysis show that the variables of suitable housing, development of public transport infrastructure and employment and sustainable income are the key independent variables that are characterized by high effectiveness and low impact. The variables of equitable distribution of services and facilities, open urban spaces, green spaces and identity and sense of belonging are of Linkage components. These variables cause major changes in the system that must be taken into account. The variables of education and its quality, entertainment, and leisure are independent variables that have a little dependency power. Also, health and social variables, Social suspension, security, local communities, historical-cultural factors, beautiful landscapes, as well as air quality and pollution are of a dependent type that has a strong dependency and poor guidance.

 Keywords: Viability, Delphi method, Interpretive Structural Modelling, Noorabad Mamasani.

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Solving the Minimum Spinning Tree in Designing the Isolated Crisis Management Social Media Network (Case Study: Gorgan City)

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Abstract

One of the most important of relief managers' requests during the post-earthquake period is the availability of reliable data on the status of relief camps. In the present study, the Isolated Crisis Management Social Media Network was used for communicating between 30 relief camps of the city of Gorgan. This platform can reduce the time, and ultimately improve the quality of communication and exchange of needed goods between relief camps. Some issues, including optimal logistics capabilities, fair distribution of goods and services, and video education for the injured people, are topics that can be done on this network. This paper due to target, is practical, due to doing method is descriptive and analytical and due to information gathering method is documental and surveying. In the present study, the minimum spanning tree solving method, has been implemented with Imperialist Competition Algorithm and GIS. Based on the results, and among the all of options that used in the minimum spanning tree, the setting of option 4 with the length of 64932 meters, has the most optimum conditions for media communication between relief camps. Also, the length and the time of transport of goods according to the problem framework in GIS environment was 84332 meters and 147.48 minutes, respectively. The proposed network and result is not necessarily the best possible solution for communication between defined nodes; But, while fulfilling the required quality, it can be one of the most optimal possible solutions in the framework of the minimum spanning tree problem.

Introduction

Availability the real and up to date data from the conditions of earthquake injuries is one of the basic needs of crisis management. Today, with significant advances in information and communication technology,

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geographic information systems and intelligent algorithms, virtual crisis management can be implemented within the framework of using the social media network. Virtual crisis management, reduces time and cost. It also increases the quality of relief efforts. In fact, access to reliable data on the status of relief camps, in different dimensions and scales, can be used to optimize the management of the relief process. The existence of this framework, in addition to reducing time and cost and ultimately improving the quality of communication between relief camps, can provide the benefits of social networks, and minimize the damage caused by unrealistic data. Some issues, including optimal logistics capabilities, observation of health and safety conditions, establishment of order and security, fair distribution of goods and services, organizing public assistance and Video education for the injured people, are topics that can be done on this isolated network. The purpose of this study is to determine the feasibility of exchanging data and goods between relief camps. The used algorithm with the proposed framework, provides the conditions of this problem.

Materials and Methods
This paper due to target, is practical, due to doing method is descriptive and analytical and due to information gathering method is documental and surveying. The present research seeks to create an optimal solution for the management of emergency relief logistics facilities for earthquake injures. to this target, it solves the problem of the minimum spanning tree in the context of creating an isolated social-communication network between 30 locations of the Gorgan city as the location of the relief camps in the MATLAB 2016 software environment.
The minimum spanning tree is a tree that the total weight of the edges has the smallest possible value. The lowest cost, can be a function of distance, quality of communication, and so on.
Points intended to meet the algorithm are areas that appropriate to creating relief camps in the city. To solve the problem, Imperialist Competition Algorithm has been used and the cost of creating a network and spanning tree is also considered in the GIS environment based on the distance between the points of the camp. The spatial and temporal distance between these camps, based on the existing network of Gorgan urban roads, which consists of 8,147 nodes and 9869 edges, is extracted from the ArcGIS environment.

Discussion and Results
The minimum spanning tree method is applied in the design of communication, computer and transportation networks. Given that the output of this algorithm, like other metaheuristic algorithms, has a high dependence on the values of the defined components in the problem, various options for implementing this algorithm were used with different settings. The proposed network, is one of the most optimal solutions to the problem and, while

implementing the quality of communication with the least possible cost, it can also provide social media communication between relief camps.

Conclusion

Due to the probabilistic conditions at the post- earthquake time, planning will also be uncertain. But planning and forecasting the possible scenarios is more logical than empirical and cross-sectional solution. In the present study, according to the structural characteristics of Gorgan city and the 400-meter difference between the locations of relief camps, the defined scenario has been planned on the basis of telecommunication trunk of the city. With regard to the fact that communication trunks may be damaged during the earthquakes, the proposed model for defining the minimum spanning tree algorithm is defined floatingly, therefore, due to the possibility of vulnerability of some trunks, the closest existing trunks can be used to implement the algorithm. Based on the results, and among the all of options that used in the minimum spanning tree, the setting of option 4 with the length of 64932 meters, has the most optimum conditions for media communication between relief camps. Also, the length and the time of transport of goods according to the problem framework in GIS environment was 84332 meters and 147.48 minutes, respectively.

The results are not necessarily the best possible solution for communication between defined nodes; But, while fulfilling the required quality, it can be one of the most optimal possible solutions in the framework of the minimum spanning tree problem.

Keywords: The Minimum Spanning Tree, Isolated Social Media Network, Imperialist Competition Algorithm, GIS, Crisis Management.

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Manifestation of practical judgements in tidal behaviors of Tehran metropolitan's Urban Planners

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Abstract
This paper aims to understand and explain the practical judgements of planners in the urban planning environment of Tehran metropolis. By considering the objective of this study which is to develop a middle-range and substantive theory that leads to achieving a better understanding of the institutional behavior of planners in their lived experiences, the constructivist grounded theory has been chosen for this research. In this research, the focus of constructivist grounded theory is on the actions, interactions and social processes of planners. The Data for analyzing of mental elements of planners are provided by semi-structured interviews with 28 planners who have experiences in the planning environment of Tehran metropolis and answering questions related to their lived experience in the given environment. The basic question in early stage of research process is that "how do the practical judgements of planners in planning environment of Tehran metropolis construct?". Based on the theoretical findings in this research, the frictional behavior of planners against the institutional barriers of planning and decision making system demonstrates itself in the tidal behavior framework.

Introduction

The planning judgements and decisions have constructed in interplay of individual and collective frames of planners in a culturised context of planning. Planners make different judgements in their daily planning process – they define the planning problem, they formulate goals and objectives and implement certain instruments to develop, good or desirable places, neighbourhoods, cities or regions. They always perceive the world througho a 'cultural lens' which consists of both individual planners' and commonly shared accumulated attitudes, values, rules, standards and beliefs of planning institutions.

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Materials and Methods

In constructivist grounded theory, my approach is based on the assumption that any theoretical interpretation is an interpretive image of the universe studied, and in this study suggests the institutional behavior of planners rather than a detailed image of it. The constructivist grounded theory practice in this research has been followed in accordance with the proposed Charmaz process. The Data for analyzing of mental elements of planners by semi-structured interviews with 28 planners are provided with experience in the planning environment of Tehran metropolis and answering questions related to their lived experience in the given environment. After performing the pre-coding steps, including data collection and Transcription, the data analysis stage and triple coding spectra: initial coding, focused coding, and finally theoretical coding has been carried out. After the initial data coding process and the production of 771 codes in combination with interview memos, a focused coding process was followed for the production of subcategories.

Results and Discussio:

The theoretical coding as the last coding step contributes to the saturation of the central categories identified during coding, and the central phenomenon or core categories were identified. It consists of six sub-main categories with titles: "representation of planning and decision making environment of Tehran metropolis by planners", "dilemma of mental conception versus lived experiences of planner: conscious tidal behavior", "lack of institutional self-consciousness in planning and decision making organization" and "footprint of ideological space of organization", "dominance of experience on theoretical learnings", "social context in representation of planners" which all of them achieve meanings under the main category of "Manifestation of practical judgement in the tidal behavior framework". This research provides a constructivist theory or a "theoretical abstract understanding" of the planner's studied experiences that this research has led to my substantive theorizing of the institutional behavior of planners in their experiences of the planning environment of Tehran metropolis

Conclusion

when planners may know or feel what ought to be done but may still act against their better judgement, the concept of *phronesis* or practical judgement appears. This paper argues that tidal behavior expresses for those who equipped with phronesis virtue, desire (what ought to be done) and the right judgement (what is done) coincide. This means planners do what they know or feel is right to do, socially and politically, if they have achieved wisdom. Thus, phronesis goes beyond analytical (episteme) and technical (techne) knowledge and involves judgements which are 'made in the manner of a virtuous social and political actor'.

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Explanation of the role of the standard-based and demand-based in fair distribution of urban services (Case study: Rahahan district in Qazvin)

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Abstract
Land use planning has been trying to find some methods for better distribution of urban service. To achieve this, it has used a standardized approach that is based entirely on the same needs and already predicted in the form of urban standards and has been ignored the real demand in land-use planning. This study compares and analyzes two standard approaches and demand-oriented approaches to improve the level of participation of residents in land use planning and realizing the real needs of residents. This research has been used descriptive-analytical method and is done by comparing standardization and demand-oriented approach. The two criteria of per capita land use and the standard of access radius for the principle of standardization and survey of residents have been selected by the questionnaire and analysis in SPSS and objectification of its results in GIS environment by IDW method for the principle of demand-oriented. The results of comparing these two approaches show that there is a serious difference in the type of view and the results of planning based on urban standards and planning based on people's opinions.

Introduction

One of the problems of urban societies is social inequalities due to the unfair performance of urban planning and the kind of decisive and inflexible view of urban issues, such as urban services. The purpose of land use planning is to select the optimal type of resource utilization by identifying current land use problems and creating appropriate and sustainable options. (Dent, 1988). Jung, in his justice-centered theory, believe in the factor of distribution as a key element in achieving social justice in cities (Young, 1990: 37). Spatial justice according to the idea of social justice, means that residents should be

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treated equally wherever they live (Tsou, 2005) . The present study seeks to compare and analyze standard-based and demand-oriented planning with the aim of improving the level of people's and residents' participation in the planning process.

Materials and Methods

This research has been done by descriptive-analytical method. Two approaches, standard-oriented and demand-oriented have been studied in land use planning. The standard approach was analyzed by per capita standards and access radius and buffer maps and the demand-oriented approach, the residents' demand was surveyed by using a questionnaire and data was analyzed in SPSS and results have been provided in GIS by IDW method.

Results and Discussion

According to results have been obtained from standard-oriented and demand-oriented approaches: *Educational use*: in standard-based principle, with 1.1 per capita and lack of 5208 square meters space, the emphasize is on space extension, but in demand-based principle, by 2.83 scores in SPSS and residents' opinions, there is little need to this use.

Medicinal use: in standard-based principle, with 0.8 per capita and lack of 1312 square meters space, low emphasize is on space extension, but in demand-based principle, by 2.23 scores in SPSS and residents' opinions, there is high need to this use.

Religious use: in standard-based principle, with 0.2 per capita and lack of 672 square meters space, the emphasize is on space extension, but in demand-based principle, by 4.01 scores in SPSS and residents' opinions, it has been too much and there is no need to this use.

Green space use: in standard-based principle, with 3.4 per capita and lack of 11085 square meters space, the emphasize is on space extension, also in demand-based principle, by 2.23 scores in SPSS and residents' opinions, there is high need to this use.

In association with other criteria, like service accessibility and quality, the scores and results have been different.

Educational use: the outcome of standard-based principle has been convenient distribution and desired quality, while in demand-based principle it has been inconvenient distribution and undesired quality.

Conclusion

According to the findings of this study, which was obtained by comparing the results of two approaches (standard oriented and demand-oriented), have been observed significant differences in some results. In the standard oriented approach results showed should increase and change the location of some land-uses, but in demand-oriented approach results showed there is no problem or shortage in land-use, or conversely. As a result, in urban planning

for communities need to use the opinions and participation of residents in this process.

Keywords: urban services, social justice, standard-based planning, demand-based planning, people's participation.

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Explaining the Relationship between Urban Distribution Patterns and Sustainable Development (A Case Study of Sari)

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Abstract

  Rural migration, with the addition of new districts to the cities, causes the expansion of cities with the increasing expansion of the city. So it is necessary to study the reasons of its formation. The goal of this paper is to explain the spreading pattern of the Sari city and the process of physical development, investigating the pattern of city development and expansion, the impact of city expansion pattern on user distribution, the Impact of City Expansion Pattern on Spatial Distribution of Population and Services in Different areas. In order to study the subject, firstly, by analytical and descriptive methods, various environmental demographic, social and physical variables of the structure of districts of Sari city in different periods were investigated. To evaluate the pattern of development of the physical urban development and development in suburbs and villages adjacent to the city. Then, using Shannon and Heldern, Entropy models, standardized score, Williamson, HDI, Pearson correlation coefficients and Spearman were evaluated and analyzed. To analyze the pattern of urban expansion from variables such as area of the city and city population and gross per capita gross and documented to the master plan of the city, In the form of Entropy and Heldern and also using Williamson models, standardized scores, Combined human development index Pearson and Spearman correlation coefficients have been evaluated and analyzed by the influence of the spread pattern on the distribution.

Introduction

  Rural migration, with the addition of new districts to the cities, causes the expansion of cities with the increasing expansion of the city, rural areas and population centers around the city add to its body and is in fact imposed on it.

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The growth and expansion of the city is seen as a reflection of the stages of rediscovery and social change within cities. The research question is: What is the pattern of urban development and how is the distribution of services and population based on the physical development model? The goal of this paper is to explain the spreading pattern of the Sari city and the impact of villages around the city on the intensity of expansion, Seeking to achieve the following goals: Investigating the process of physical development of the city, studying economic and social changes in the pattern of urban expansion , Investigating the pattern of city development and expansion, Investigating the impact of city expansion pattern on user distribution, Investigating the Impact of City Expansion Pattern on Spatial Distribution of Population and Services in Different Areas, Finally, the proper patterns of urban development and expansion . Urban sprawl growth over a period of time without a predetermined schedule has led to an inconsistent and heterogeneous growth, and the research hypothesis of the inappropriate distribution of services and facilities at the city level, uncontrolled construction on the margins of cities, and ... somehow Leading to the destruction of agricultural lands and gardens. And this has brought in irreparable damage to the city. Types of urban development pattern are categorized into three broad categories of urbanized cities, urban intelligent growth and urban dispersion.On the basis of the above theory, the pattern of urban development has been investigated

Materials and Methods
The research method is descriptive-analytic. Initially, information was gathered through documentation sources such as existing research, local initiatives and websites. Then the physical development of Sari city and the suburban impact in the intensity of the expansion of the city first, To analyze the pattern of urban expansion and its factors affecting the variables such as area and city, population and gross per capita gross and gross in terms of entropy and Heldern models, and also the effect of the spread pattern on the distribution of utilities and urban services using the Williamson models , Standardized score, combined human development index, Pearson and Spearman correlation coefficients (Hikmat Nia and Mousavi, 2006: 129) have been .

Results and Discussion
 In 2015 the population of Sari city in 1965 was 26278 people in 2015 equivalent to 309,000.The area of the city was 135 hectares in 1965 and increased to 4208 hectares in 2015. This trend is unlikely to be that the population of the city has increased by 35 times between 60 years and the city has grown by 75/11. The area of the city has been 2690 and 4208 hectares in 1956 and 2015 (Mazandaran Road and Urban Development Office, 2016). The output of the Shannon entropy model data is obtained by analyzing these two periods of 155/3 and 230/2. The magnitude of the

entropy's magnitude is indicative of the dispersed growth of urban physical development. According to the data of the Heldern model, 85 percent of the city's growth from 1956 to 2015 was related to population growth and the remaining 15 percent was related to horizontal growth. According to the Williamson index, the distribution of usage in different areas of Sari is uneven and these uses have not been reasonably distributed throughout the city. The correlation coefficient between Pearson and Spearman is 0.18, which indicates a weak correlation between population distribution and distribution.

Conclusion

.The decentralization of the procurement The results of the study of the evolution of the trend of the expansion of the city of Sari indicate that it is due to socioeconomic changes (population and migration) and physical (city shape and pattern of use) in the spatial structure of the city and data analysis based on entropy, Williamson, Standardized, and HDI models reflects the dispersed growth of the city and the uneven distribution of applications at the level of urban areas. These data indicate that there is a disorder in the urban structure in the central and urban areas. As a result, the development of the city on the suburban was linear specially, in the north and south axis and in the vicinity of the villages connected to the city, in addition to the city's legal areas. In order to get out of this deadlock, suggestions for optimal growth and development of the city are presented below: Attention to the multifaceted development of the city, special attention to the conventional and cultural and social aspects, the desired density pattern and the encouragement of altitude for construction by providing appropriate services, strict control over non-planned construction, the establishment of coordination between the executive agencies of services Monitoring, controlling and controlling more of the government on the city, supporting massive projects and preparation projects, rational guidance of the villages surrounding the annexed city.

Keywords: urban development, expansion of city, Sustainable Development, Urban Distribution, urban textures, Sari City

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Prioritization of Urban Neighborhoods in terms of the physical structure of housing for urban regeneration (study: Gorgan city)

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Abstract
Old parts of the cities were the best and good urban neighborhoods in the past time. These areas have many monuments elements today. For measuring and identifying of degradation and prioritize of worn- out urban texture is use to decision making methods. The present research problem is abundance and prioritizing of worn- out texture in Gorgan neighborhoods. The extent of this part of Gorgan is about 150 hectares, equivalent to 5 percent. This research is an applied work with descriptive- analytical methodology. This research data are obtained from field survey and documentary and library studies and using of the statistical block of the census in 2011. In this research, the historic and worn- out neighborhoods of Gorgan have been prioritized with using of (WASPAS) decision-making techniques. Shannon entropy method has been used to weigh indices and to evaluate the effect of each index. The results of this research show that Bazaar and Shirkosh neighborhoods with 1.4090 points are ranked first and with good conditions. Shahzadeh Ghasem neighborhood with 3328.0 points, Bagpalang neighborhood with 2916/0 points, Sarkhajahe neighborhood with 2746/0 points, Mikhchegaran neighborhood with 2342/0 points are ranked from second to fifth, this areas have good conditions and urban housing indices. Sarpir and Dabaghan neighborhoods with 2322/0 points, Maydan Abbasali with 2214/0 points, Mirkarim and Nohtan neighborhoods with 2054/0 points, Nahlbandan and Passarv with 0/600 points, Darbeno and Doshanbehi with 1716/0 points, Sabzeh Mashhad, Sarcheshmeh and Chaharshanbehi neighborhoods with 1668/0 points, have ranked from sixth to eleventh. These results show that poor and bad conditions of housing indices in these neighborhoods that has been necessary for looking of officials and managers.
Key words: Worn- out texture, WASPAS, Urban Regeneration, Gorgan city.

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Introduction

The most important consequences of the bad urbanization process are shortage of urban facilities both residents and urban migrants. These situations have created any problems such as cultural, economical and social challenges. In recent scientific literature, urban regeneration is used as a generic term that incorporates other concepts such as improvement, modernization, reconstruction, empowerment, and psychosis. Urban regeneration is a process that leads to creation of a new urban space by save of features of space (physical and activity). In this process a new urban spaces have been created. These areas have similarities and differences to the old urban space. Study area is including of the worn- out texture of Gorgan central part. This area has to most important to plays essential role in economic activities and a big market. In spite of economic activates of this part, residential neighborhoods and business centers have not good situation. Research problem is; how prioritize to neighborhoods to regeneration of the worn- out texture in order to promote sustainable urban development?

Materials and Methods

Research method is descriptive- analytical as applied work. Research data have been collected through library and documentary field. Research indexes had been weighted using to Shannon entropy method. For analysis of status of urban housing indices in worn- out texture areas, had used to multi-criteria decision- making models. In order to performance of research had selected eleven neighborhoods in worn- out texture of Gorgan. Data analysis had performed according to using of multi- criteria decision making and information system geographic

Results and Discussion

According to research results; neighborhoods of Alucheh Bagh and Shirkhakh with 4090/0 points, have the first rank and best conditions, Shahzadeh Ghasem with 3328.0 points, Bagpalang with 2916/0 points, Sarkhajhe with 2746/0 points, Mikhchegaran with 2342/0 points are ranked second to fifth, these are the best conditions and urban housing indices. Sarpir and Dabbaghan neighborhoods with 2322/0 points, Maydan Abbasali with 2214/0 points, Mirkram and Nohtan with 2054/0 points, Nalbandan and Pasarv with 0/600 points, Darbeno and Doshanbehi with 1716/0 points, SabzehMashhad, Sarcheshmeh and Chaharshanbehi with 1668/0 points are ranked sixth to eleventh. These results show inadequate and inappropriate conditions of housing indices in these neighborhoods, subsequent of these outputs must be special looking for of local officials and managers. Fallow of these results; SabzehMashhad, Sarcheshmeh and Chaharshanbehi have very bad conditions so arranged first rank, and finally are Darbeno and Doshanbehi.

Conclusion

Understanding is the first and essential step in all urban planning. Planning for a subject or area should be based on the recognition of the current and past status of them. As well as recognize of the more undesirable and vulnerable areas can help to planners and managers to performance such programs. In the new era of urbanization and its challenges, city centers and old parts have been undesirable urban development. More cities have urban worn- out textures today. One of the confident approach for urban planners to regeneration and recognizing of potential to use of them and revise of shortage is to planning of reform of worn- out texture. According to mentioned above good recognizing a problem lead to solve this. Since Starabad had three major neighborhoods so there included small parts in past. According to finding, SabzehMashhad, Sarcheshmeh and Chaharshanbehi had very bad conditions and rank and Darbeno and Doshanbehi had good rank.

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Modeling and Evaluation of Social Vulnerability at Isfahan Cities Level

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Abstract

In the vulnerability of settlements, only physical factors do not matter, but social elements have an important contribution to the degree of vulnerability.

Considering the important role of social factors in reducing and increasing the effects of natural hazards, this study focuses on social vulnerability as one of the dimensions of vulnerability to natural hazards. The purpose of this study was to evaluate and prioritize the social vulnerability of counties of Isfahan province to natural hazards. Therefore, the present study is an analytical descriptive with an applied purpose. So, for estimating and ranking the severity of the vulnerability, the artificial intelligence model and geographical weight regression test have been used. The results show that the three indicators of households with disabled people, disabled people and divorced women had the highest impact on the increasing of social vulnerability in Isfahan province. Also in terms of spatially, the highest vulnerability is related to Falavarjan and Lenjan cities, which have the highest social vulnerability to natural hazards in Isfahan province.

Introduction

The urban population of the world has risen from 33.616% in 1960 to 54.827% in 2016. So by 2050, two thirds of the world's population will live in urban settlements. This increasing concentration of population in urban areas could make urban centers more susceptible to the risk of being severely affected by natural hazards. In an increasingly urbanized world, cities and their inhabitants are facing significant human and economic losses from disasters. Recent disasters around the world reflect the vulnerability of our built environment and show the unfortunate consequences of disasters. In 2014, 1,692 out of a total existing cities with 300,000 people, 944 of them (56%) were in areas at high risk of one of the six major natural disasters in the world (storms, floods, droughts, earthquakes, landslides and volcanic

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eruptions). Some 82 percent of cities -home to 1.9 billion people - were located in areas that faced high risk of mortality associated with natural disasters. On average, cities in the less developed regions were at higher risk of exposure to natural disasters and were more vulnerable to disaster-related economic losses and mortality than those in the more developed regions.

Materials and Methods

The method of doing research is descriptive-analytical. An artificial neural network model was used for modeling and evaluating the social vulnerability of the studied cities. So, social vulnerability data were obtained from Statistics Center, firstly. Then, by using the Excel software, the indexes were obtained and standardized. In the following, SPSS software combined indicators and the final social vulnerability index was obtained. In the field of constructing a neural network, 60% of the data for training and 40% for testing were considered among the studied cities. Finally, the results were analyzed spatially by using ARC GIS software and the correlation between the final indexes with the highest index in the studied cities was analyzed by GWR test.

Results and Discussion

In the construction of artificial neural network, at the training stage to build the best network, 60% of the data was used to find the best possible mode with a minimum average error. Based on the results, there is a strong correlation between the indicators used and the degree of social vulnerability, so that the linear relationship between them is (0.978). Based on the results of the test phase, although the relationship between the indicators used and the degree of social vulnerability is lower than the training stage, it still shows a high figure (0.942). According to the results of the network sensitivity analysis, the indicators of families with disabled people, the disabled population, the ratio of divorced women to total women, single population, Premature marriage index in the age group of 15-19 years old - Total, Premature marriage index in the age group of 15-19 years old - women, non-native population, children aged 5 and below, The ratio of illiterate women to all women and finally, The ratio of people that their education place is outside of their own city to the whole of population- Men had most effect on the final indicator of social vulnerability, respectively.

The results of spatial analysis indicate that Falavarjan and Lenjan counties have the highest social vulnerability in the filed of counties of Isfahan province, which is one of the most important reasons was the high number of disabled population as well as the high number of divorced women at the level of this counties in compare to other regions. Isfahan and Khomeini shahr with high social vulnerability were located in the second place. To investigate the relationship between the index of households with disabled people (which was the most important indicator based on the results of

artificial neural network), with the degree of social vulnerability in the studied counties, GWR was used. In this context, the highest correlation between the variable of households with disabled people and social vulnerability is related to Isfahan and Dehaghan. In addition, lowest impact of households with disabled people on social vulnerability is related to Natanz which has the least impact on the geographic weight regression model. The trend of regression model in determining the distribution of the social vulnerability pattern and its relation with households with disabled people in the study area shows that, given the high coefficient of R2 which equals 0.93, it can be said that the output of the model parameters confirms the high probability of the relationship between these two variables.

Conclusion

The evaluation of the results of the research shows that social vulnerability is more than average in Isfahan province. According to the results, there is a strong correlation between the indicators used and the degree of social vulnerability. Regarding the findings in the field of most important indicators affecting social vulnerability, it can focus on these indicators and try to strengthen and empower the strata it can greatly reduce the social vulnerability of the province. The most important point in this regard is the distribution of social vulnerability in the counties of province. According to the findings, Falavarjan and Lenjan counties have the highest social vulnerability in the field of counties of Isfahan province, which is one of the most important reasons were the high number of disabled population as well as the high number of divorced women at the level of this counties in compare to other regions. Also, according to the geographic weight regression analysis that shows the relevance of the most important indicator in the field of social vulnerability which was the family with disabled people (derived from the Artificial Neural Network model) and the rate of social vulnerability. In this regard, there is a great difference in the amount of this connection in the level of counties of province. The highest correlation between the variables of households with disabled people and social vulnerability is related to Isfahan and Dehaghan, but in this field, Natanz has the least effect on the geographical weight regression model.

Keywords: Social vulnerability, Natural hazards, Artificial Intelligence, Disabled Population, Isfahan Province.

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Analyzing the Role of Peripheral Areas in Sustainable Spatial Political Organization of Iranian Cities (A Case Study of Tehran Metropolis)

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Abstract:

In preparing the land, the subject of space, and analyzing the laws governing its formation, it has the most crucial role in planning. There are generally different interpretations and interpretations of space, but overall it can be said that space encompasses socio-economic interrelations of a part of society in a given environment of the land. And the spatial organization is the explanation of the relationship between man and space and human activities in space. The purpose of this article is to analyze the role of peripheral areas in the sustainable spatial political organization of Tehran metropolis. The main question is what is the role of peripheral areas in sustainable spatial political organization of Iranian cities with emphasis on Tehran metropolis? The research hypothesis to answer the main question is that Spatial Organization of Suburbs of Tehran metropolis in terms of the general picture and how the population is distributed and settled and the distribution of social-economic establishment and the interactions between them due to the instability of the stable spatial political organization, the metropolis of Tehran has been challenged. The method of this paper is descriptive-analysis where will try analyze the research topic using official statistics and available scientific resources. The results of the paper show that Understanding the process of organizing space in the peripheral areas can be seen that in what direction the metropolitan developments do take place and so it is in line with the city's development strategy. It can also be concluded which trends in metropolitan space planning need to be strengthened or weakened or created.

Introduction

Today, Cities, regardless of their geographical location and economic and political structure they have become a scene of social contradictions. The distinct social classes are completely separated from each other and the gap between rich and poor is constantly widening (Heidarian, 2010: 3).In industrialized countries, all basic amenities are affordable to urban dwellers.

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In developing countries, by contrast, most citizens do not have access to essential services. In many areas of fast-growing urbanization in third world countries, the demand for public services is much higher than the public capacity and private facilities available. Accordingly, it is argued that in some cities, critical situations are occurring rapidly. This, in addition to the scarcity of resources, is the result of unplanned growth and an inadequate pattern of service distribution (Fainstein, 2005).

Materials and Methods
The purpose of this article is to analyze the role of peripheral areas in the sustainable spatial political organization of Tehran metropolis. The main question is what is the role of peripheral areas in sustainable spatial political organization of Iranian cities with emphasis on Tehran metropolis? The research hypothesis to answer the main question is that Spatial Organization of Suburbs of Tehran metropolis in terms of the general picture and how the population is distributed and settled and the distribution of social-economic establishment and the interactions between them due to the instability of the stable spatial political organization, the metropolis of Tehran has been challenged. The method of this paper is descriptive-analysis where will try analyze the research topic using official statistics and available scientific resources.

Results and Discussion
The results of the paper show that Understanding the process of organizing space in the peripheral areas can be seen that in what direction the metropolitan developments do take place and so it is in line with the city's development strategy. It can also be concluded which trends in metropolitan space planning need to be strengthened or weakened or created.

Key words: Peripheral areas, Tehran metropolis, Organization, Sustainability.

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