

Investigation and evaluation of the role of urban regeneration in the vitality and dynamism of urban spaces (Case study; Zargandeh neighborhood of Tehran)

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ABSTRACT : Today, urban spaces do not meet the needs of space users and do not have environmental qualities. One of the important and constructive qualities of responsive spaces is their vitality and dynamism. Improving the quality of urban spaces and creating dynamic urban spaces is one of the most important results of urban regeneration. Using the urban regeneration approach, while respecting the values of the past, paying attention to the needs of today's life and using this approach help restore dynamism and vitality in the ancient urban fabric. Zargandeh neighborhood, which is a clear example of urban self-motivation neighborhoods, has grown in the process of further development as a rural-urban context. Existence of decay has also caused high risk against natural disasters, traffic and transportation problems, relief work, loss of identity and neighborhood culture, and so on. Therefore, the aim of this study is to study the role of urban regeneration in creating a dynamic and lively atmosphere in Zargandeh neighborhood of District 3 of Tehran. The present study was of analytical-combinational type (combination of quantitative and qualitative analytical methods) and data collection was done using documentary and survey methods and also information and data analysis was done using SWOT and QSPM methods. Criteria and sub-criteria of the research have been designed in the form of a qualitative questionnaire and have been provided to experts, city officials and citizens of the target area. Strategies developed in this research have been presented according to the criteria of urban dynamism and vitality in Zargandeh neighborhood of Tehran, in terms of economic, physical-infrastructure and environmental dimensions. Finally, the proposed alternatives have been proposed according to the strategies. The results of this study can have several applications for each of the groups involved, such as consultants, contractors, employers and especially its stakeholders.

KEYWORDS: *urban regeneration, dynamic atmosphere, vitality, Zargandeh neighborhood*

I. INTRODUCTION

Prior to the Industrial Revolution, changes in urban societies were slow and intangible, and consequently the body of cities did not change significantly. Along with economic, social, cultural changes and new technologies, urban textures and neighborhoods and their foundations were transformed. In the meantime, neighborhoods and urban texture have not had equal facilities and growth factors over time, and this has led to the creation of new and new spaces along with old and deteriorated spaces. In general, reducing the efficiency of any phenomenon leads to its distressedness. When life in a part of the city declines for any reason, the urban fabric of that area is in a state of distressedness.

Since urban regeneration is based on environmental improvement, economic development and social inclusion, and also pays attention to the participation and involvement of all stakeholders and influential groups, it is appeared as an appropriate and comprehensive approach to create a new urban space while maintaining the main spatial features (Physical and activity). On the other hand; comprehensiveness in the procedure and content of "urban conservation and regeneration" makes it a comprehensive guide to achieving "real development". Today, urban spaces do not meet the needs of space users and do not have environmental qualities. One of the important and constructive qualities of responsive spaces is their vitality and dynamism. The dynamics of urban space is due to the synchronicity of its physical elements with time, and since time never stops moving, it always imposes events on place. Therefore, regeneration should always be considered as an approach to adapt the time to the place and the spirit of the place to the human spirit, and proper planning should be done for it. Given the importance of deteriorated and dysfunctional textures such as having a special economic status (which is called

the beating heart of the city), having a cultural burden (which gives the city identity and meaning), the existence of elements With historical, cultural and religious value, proper and principled planning for deteriorated urban textures and their regeneration is necessary to create dynamism and vitality and improve the quality of life in these urban areas, the purpose of this article is to use the urban regeneration approach, while respecting the values of the past, in order to pay attention to the needs of today's life and to help restore dynamism and vitality in the ancient urban fabric by using this approach. It is worth mentioning that this research can help managers, planners, designers and urban policymakers to develop the role of urban regeneration in order to create a dynamic and lively atmosphere.

Background research

Numerous researches have been done on the role of urban regeneration in the vitality and dynamism of urban spaces, and some examples are mentioned below:

In a study conducted by Azadeh Ghaffari and Hamid Saberi in 2017 entitled "Strategies for Regeneration of Deteriorated Urban Textures" with the aim of introducing the urban regeneration approach and using this approach to solve the problems of deteriorated urban areas, they concluded that the creation of social oversight, increased security, modernization of functions, prosperity of businesses and locals can be effective in the reconstruction of Sheikh Suleiman neighborhood of Shahr-daran.

In a study conducted by Hassan Sajjadzadeh et al. in 2016 entitled "The role of regeneration with a development stimulus approach in traditional neighborhoods" with the aim of finding an approach to achieve a comprehensive regeneration for the development of neighborhoods, it was found that the development stimulus approach can be used as a comprehensive and integrated vision to revitalize and regenerate the neighborhood, as well as preserve its historical and physical values, a neighborhood as a living space in harmony with modern life and proportional with the historical character and identity can be achieved.

In a study conducted by Zahra Naderian in 2016 entitled "Socio-cultural regeneration of urban spaces with the aim of promoting neighborhood identity" with the aim of studying and recognizing the positive and successful aspects in the field of cultural regeneration, she concluded that we can promote the identity of the historical mortar according to four main criteria of cultural regeneration and the six main criteria of neighborhood identity and the strong relationship between these criteria, leading to a sense of belonging of citizens.

In a study conducted by Tavana Abedini in 2015 entitled "Regeneration of the city texture with the approach of sustainable development and public participation" with the aim of evaluating and prioritizing deteriorated texture problems and achieving sustainable regeneration strategies, the physical structure was the most important problem of deteriorated texture and the managerial, environmental, economic and social dimensions are in the next ranks.

Babaei Eghdam et al. in 2015 in a study entitled "Evaluation of the factors affecting public participation in organizing deteriorated urban textures with emphasis on social capital" with the aim of examining the factors related to public participation to organize deteriorated texture concluded that there is a significant relationship between the variables of social trust and social awareness with the issue of public participation in organizing the deteriorated texture.

Table 1. Research Background - References

(Martinat et al., 2018)	Martinat et al. examined regeneration in post-industrial cities. They gave high potential to the deteriorated and abandoned lands of the city center, in which active uses can be placed to make the space dynamic. Cultural and sports spaces, children's park and gardens are among the spaces that people intended for these spaces.
(Yu & Kwon, 2011)	Yu Jang et al. examined the key and effective factors in urban regeneration projects and the regeneration plan is considered as the most effective among the plans and projects to reorganize the deteriorated texture, and they claim that the regeneration project can be a dynamic and active atmosphere in the past and return the existing environment to the environment.
(Cho & Kim, 2016)	Cho and Kim investigate the effects of the regeneration project in the village of Jangsu in South Korea. Many projects have been carried out in this sector since 1960, but the population of the sector has been drastically reduced. However, they explored how regeneration projects could revitalize the region
(Peng, Lai, Li, & Zhang, 2015)	Given the increasing number of declining cities and their reconstruction and improvement projects, the concept of regeneration has received more attention. This article examines the sustainability of urban regeneration projects and provides a framework for reviewing regeneration projects.
(Alexandrescu et al., 2018)	This article examines the progress of the concept of sustainability in regeneration. For this purpose, it analyzes the effective factors in regeneration with different methods to calculate the score of each factor.

Source: Author

Theoretical Foundations

The concept of regeneration

The term "urban regeneration" is a general term that encompasses other concepts such as urban improvement, renovation, reconstruction, empowerment and life giving. Urban regeneration means revitalization, revitalization and urban renaissance, in other words, revitalization of the city (Habibi and Maghsoudi, 5: 2002). As a theorist of urban restoration, Ludovico Cuaroni believes that urban regeneration is a multifaceted matter that encompasses all economic, social, and physical aspects, and that revitalization must take place in a variety of ways. In his view, dynamism in historical contexts, especially economically, is very important. In summary, the urban regeneration approach is adopted in order to reverse the process of urban change and decline (Batey, 2000). Based on this, three general types of urban regeneration can be introduced (UNEP, 2004,7):

- **Imposed Regeneration:** This type of regeneration is performed after a long abandoned land or severe loss of living conditions in an area (such as: Dockland London)
- **Opportunistic regeneration:** This type of regeneration takes place where private and public investors monitor the land available for large projects (e.g., Barcelona, Athens).
- **Preventive or Prospective Urban Regeneration:** This type of reconstruction is done in areas where economic and social structures are deteriorating (such as: Istanbul, Alpo, Alexandria)

In short, the concept of urban regeneration can be defined as a comprehensive and integrated view and practice leading to the discovery of solutions to the problems of deteriorated urban areas seeking to create a lasting reform in the economic, physical, social and environmental conditions of the subject area of change. Urban regeneration is used where market forces alone are not sufficient to halt the downturn and reverse the physical, economic, social, and environmental downturn in downturn areas (ODPM 2003, A156&Roberts 2000, 17).

Regeneration goals

The goals of urban regeneration can be stated as follows:

- **Economic goals:** attracting investment, creating jobs, modernizing the city's economy, improving wealth distribution (2000, 62, Noon et al);
- **Social goals:** attracting educational and research institutions and organizations, achieving the values and preferences of society and various social groups, reorganizing decision-making mechanisms with democracy, increasing the atmosphere of cooperation and participation, paying attention to interactions between organizations and institutions and their internal relationships (12, 2005Lang);
- **Environmental goals:** improving the environment, fighting pollution.
- **Physical goals:** solving the problem of physical distressedness, expanding housing facilities in the city and developing local infrastructure, promoting architectural heritage (in historical cores) and tourism in the city.

Table 2-2 states the objectives of urban regeneration theory.

Table 3. Goals of urban regeneration projects

Dimensions	Tasks	Researchers	
		Roberts and Sicks (2000)	Talon (2010)
economical	Public-private participation	Attracting investment	Competitive increase of places
	Maintain jobs and increase employment prospects	Creating job opportunities	Revival of retail
	Attracting human capital	Public-private participation	Special scope of business promotion
social	Job skills capabilities	Improving social conditions	Local government and administration
	Promoting local companies	Empowering the local community	Shared social intra-urban network
		Promoting local participation	Local community participation
		Upgrading housing capacity	Nobleness of boundaries
			Urban cultural areas
physical	Comprehensive integrated space plan	Land structure reform	Neighborhood development
	Increasing public transportation	Improving the quality of buildings	Compact and dense city
	Increasing local transport (pedestrian and bicycle)	Upgrading urban infrastructure	Improving the quality of buildings

	Creating local settlement zones	Upgrading the movement system	Immigrant Gated communities
environmental	Design-based projects	Improving the urban landscape	Urban sustainability
	Improving the urban landscape	Improving environmental quality	Increasing urban green spaces
other	Adaptation to the conditions of the owners	-	Revitalization of urban centers
	Twenty-five year plans	-	Increasing urban tourism

Principles and process of urban regeneration

Urban regeneration includes social, economic and environmental dimensions at urban, regional and national scales and includes the following principles:

- Economic changes and developments

Increasing job opportunities, improving the distribution of wealth, cultivating talent, increasing local taxes and real estate, the relationship between development and local, regional and urban improvement, attracting domestic investment.

- Social changes and developments

Improving the quality of life and social relations, reducing crime, overcoming *stigmatization* and social exclusion

- Governance

Reorganizing decision-making mechanisms through democratic understanding, increasing the space for cooperation and participation, considering different expectations, emphasizing various regional partnerships, paying attention to the interactions between organizations and institutions and their internal relations.

- Physical changes and transformations

Solving problems related to physical distressedness with new lands and appropriate necessities

- Environmental quality and sustainable development

Urban regeneration should promote balanced development and the management of the community economy and the environment. Of course, achieving such an integrated approach requires reviving the creativity of society and using it in regeneration.

Different approaches to urban regeneration

Regeneration has different approaches, some of which are briefly described below:

- Conservation-led regeneration

The evolution of urban conservation since the late 1970s has met with criteria that, have had a profound effect on its professional and theoretical orientation especially since the 1990s. The political forces influencing the planning and legislative process, the financial aspects of economic development, international, national and local associations or forces with effective ideas and programs, and finally new approaches to creating a sustainable environment are all among the most important indicators influencing the process of change in urban conservation perspectives. In addition, organizational changes were made to address the issue of conservation, and in parallel with these changes, new financial institutions were launched to support the implementation of urban conservation programs. The consequences of these organizations on the one hand and increasing attention to the role of protection on the other hand, have strengthened the policy frameworks and planning system in relation to protection, especially in the West and the increase in regeneration capacity has encouraged urban conservation, especially through the effective use of historic buildings, thus the historical environment has become an important resource in the process of urban regeneration (Izadi and Sahizadeh, 2004: 17)

- Design-Led Regeneration, Urban Renaissance

The idea of urban renaissance (Lord Rogers, UK 1999) considers design as the basis for the success of urban regeneration programs and believes in promoting a sustainable lifestyle and involving all social groups in the city and its activities are in contact with the design of the physical environment. At the same time, it emphasizes that design should be accompanied by investment in health, education, social services, community security and employment to become a sufficient condition for the success of regeneration programs (Izadi and Sahizadeh, 2004: 19)

- Community-Led Regeneration

Undoubtedly, the most important difference between urban regeneration plans from the beginning of the 1990s to the present is the extent and manner in which social groups are involved. In such an approach to urban regeneration, it is assumed that local people, based on their objective and tangible experiences of their living environment, are the most reliable reference for determining the issues that need attention. Therefore, when such communities find solutions on their own, the results will be far more consistent than what is assigned to them from the outside. In other words, successful and sustainable regeneration of an area is possible only when local

people participate in the process and have the skills needed to influence this process (Izadi and Sahizadeh, 2004: 19)

- Culture-Led Regeneration

This policy began as a more comprehensive approach in the 1990s and continues to this day, and is a huge wave that has affected urban regeneration projects across Europe. Paying attention to the role of culture, using historical and cultural values as resources for development, as well as paying attention to people's leisure time, are the most important aspects of this trend. In this approach, while paying attention to financial and economic benefits in urban projects, the direction of this investment is determined in order to create cultural and artistic centers and spend leisure time, which in addition to the return of capital, due to creating special attractions for the presence of the people and the affected areas are also completely affected (Izadi and Sahizadeh, 2004: 19)

The concept of vitality

Rob Cowan in the Dictionary of Urbanism defines vitality as suitable for life and providing the desired quality of life. John Ross believes that vitality should be used instead of the word life in the reference to vitality. He defines vitality as the quality of life as perceived and experienced by people in urban spaces (Golkar, 2006, 24). In fact, vitality is achieved when a significant number of citizens of different ages and genders are active in the city at different times, which can be expressed with the meaning of social cohesion, good and dynamic communication, collective spirit and civic pride, lifestyles and a fresh society (Khasto, 2010, 64). Therefore, paying attention to social relations means dealing with dynamism and evolution in urban spaces also, seeing the coherence of space with time offers us a dynamic approach that analyzes phenomena as they are constantly changing leading to design simultaneous with transformation. Lively urban environments pave the way for social interactions between people in the community, increase social capital, and develop a creative economy. In the last few decades, mere attention to meet the needs of riders has reduced the importance of these spaces and the role of the street as a place for social interactions, meetings, encounters and the presence of citizens has intensified (Pakzad, 2009, 78)

Components and criteria of vitality in urban space

In order to achieve comprehensiveness about the criteria of vitality, in this section, an attempt has been made to summarize the various components that have been mentioned by various theorists in relation to vitality:

- Attendancy of people

One of the components of vitality is the presence and stay of people in a space. As long as people do not use space, space is dead and it is with the presence of people that space comes to life. Therefore, it is necessary to provide suitable conditions for the presence of the people. One of the conditions for people to stay and be present is to create spaces for sitting. It is only with the possibility of sitting that the presence and permanence of that space becomes longer and the possibility of more pleasant activities outside the closed spaces is provided (Gol and Rin Hold, 1996, 8)

- Variety and attractiveness

Creating a lively, livable and people-oriented atmosphere is possible when diversity and attractiveness are seen in all layers of the architecture of the building and the designed public spaces. One of the main characteristics of diversity is functional diversity. In such a way that the designed architectural space does not have only one use and covers the needs of other people according to their needs and culture. Involvement of the edge of spaces through commercial activities, especially catering services, helps to create a sense of vitality. Experience has shown that designing the edge of an architectural space and using retail shops, restaurants or cafes is one of the best ways to increase the use of public spaces; food attracts people, and people's enjoyment acts like a magnet to attract other people (Pamir, 2013: 116).

- Comfort and relaxation

Comfort comes from contacts that are enjoyable, contacts that confirm individuals as members of the community. Creating contrast with the surrounding spaces with the help of natural elements such as vegetation, waterfront, a person's sense of comfort in indoor spaces, the appropriate width of sidewalks, the presence of shadows, seating areas, refreshing and fresh activities, being visible and the feeling of having security is one of the vital factors for creating peace and creating vitality (Carmona et al., 2009: 329).

- Permeability

Only spaces that are accessible to the public give people the right to choose. Therefore, a degree of selectivity is a key indicator for assessing the vitality of the environment, which is called permeability. Another form of permeability is visual permeability. In the definition of visual permeability, we can refer to the ability to see the path. (Bentley, 2003)

- Flexibility

Commonly referred to as the ability to change objects. According to Pamter, to create vitality in public spaces, flexible spaces should be used and special and single uses should be dictated for public spaces (Pamir, 2013).

- Security

One of the main components in creating a safe space is the size and shape of the space. Study findings indicate that the size of the space affects the security variables and this on the one hand can increase anxiety,

incompatibility and violence on the other hand, it strengthens cohesion and social relations and causes vitality (Tulaei, 2000, 39).

- Transparency

Transparency as a major component in vitality can ultimately lead to the induction of spatial indicators: such as dynamism and fluidity, continuity and continuity, internal and external communication, dematerialization and lightness, flexibility and adaptability, desirability and openness, and spatial openness while providing Lighting leads. It is also worth noting that transparency, especially in the case of walls, contrary to criteria such as spatial unity, space structure, etc., is introduced in the components rather than in general.

- Readability

Once a person gets lost in public environments and spaces, the anxiety and panic that comes to him, makes it clear how much the balance and health of a person's existence depends on his familiarity with the environment. Thus, a readable structure helps people to find their way easily and provides a sense of psychological security, comfort, well-being and desirability. (Pamir, 2013: 81)

- Beauty

People value buildings that can balance their misconceptions and encourage emotions that force people to ignore their obligations. Thus, the balance that exists in architecture, which is described in beautiful terms, refers to a situation that is psychologically called mental health or happiness and vitality.

The theoretical framework of research

According to the objectives of the research and the dimensions of regeneration, it is necessary to identify the most important criteria and sub-criteria related to the research topic. Therefore, by examining the documents and library studies, the in-depth study of the experiences has achieved the results mentioned in Table 4.

Table 4. Theoretical framework of research

<i>Dimension</i>	<i>Criteria</i>	<i>Sub-criteria</i>	<i>Reference</i>
<i>social</i>	Participation	Private-public participation	<i>Evans and Shaw quoted in verse, 2007</i> <i>Faraji Rad and Kazemian, 2012</i> <i>Safaeipour and Daman Bagh, 2019</i> <i>Naderian, 2016</i>
		Strengthen civic institutions	
	Social promotion	Increase the sense of belonging	
		Promoting collective identity	
		Increase security	
<i>economic</i>	<i>Funding</i>	Internal investment	<i>Evans and Shaw quoted by Ayat, 2007</i> <i>Naderian, 2016</i>
		Direct and indirect job creation	
	<i>Economic prosperity</i>	Service-oriented economy	
		Entrepreneurship on a local scale	
<i>physical</i>	<i>Physical development and environmental improvement</i>	Improving the condition of the passages	<i>Andalib, Nikrah and Adib, 2012</i> <i>Roberts and Hysike, 2014</i> <i>Evans and Shaw quoted in verse, 2007</i> <i>Safaeipour and Daman Bagh, 2019</i> <i>Naderian, 2016</i>
		Reuse of empty buildings	
		Rehabilitation of physical texture against reconstruction and redesign	
		Optimal use of physical capital and urban landmarks	
		Development of mixed applications	
		Renovation of utility networks	
		Improving transportation infrastructure	
<i>environmental</i>	<i>Sustainable urban development</i>	Realize attention to limited resources and energy	<i>Safaeipour and Daman Bagh, 2019</i> <i>Mousavi Nejad, 2016</i>
		Use of the private sector	
		Recycling and using the surrounding lands	
		Climate calm and comfort	
		Increase vegetation	

Source: Author

II. Research Methods

This research is in the group of applied research in terms of purpose and also in terms of nature and method in the group of mixed research, which is a combination of quantitative and qualitative analysis methods. In this research, documentary and library methods and field and survey methods are used to collect basic information. In the documentary method, information is collected by referring to books, articles, dissertations, statistics, organizational documents, etc. In the field and survey method, we collect information using observation, interviews with officials, people, experts and scientists of urban planning, photography, questionnaires, etc. The statistical population is calculated based on Cochran's formula. The statistical population includes 40 urban regeneration specialists, deteriorated texture and residents of Zargandeh neighborhood. We also analyze the data using SWOT and QSPM methods and software such as Arc GIS and SPSS.

Table 2: Collection of the information of the sub-criteria of the theoretical framework

Sub-criteria	Data collection method
Private-public sector participation	Collected through the questionnaire, observation and available information
Strengthening civic institutions	Collected through a questionnaire
Empowering communities	Collected through a questionnaire
Increasing tourism	Collected through the questionnaire, observation and available information
Internal investment	Collected through the questionnaire, observation and available information
Direct and indirect job creation	Collected through a questionnaire
Service-oriented economy	Collected through the questionnaire, observation and available information
Entrepreneurship on a local scale	Collected through the questionnaire, observation and available information
Improving the condition of the passages	Collected through the questionnaire, observation and available information
Reuse of empty buildings	Collected through the questionnaire, observation and available information
Rehabilitation of physical texture against reconstruction and redesign	Collected through the questionnaire, observation and available information
Optimal use of physical capital and urban landmarks	Collected through the questionnaire, observation and available information
Development of mixed applications	Collected through the questionnaire, observation and available information
Renovation of utility networks	Collected through questionnaires and available information
Improving transportation infrastructure	Collected through the questionnaire, observation and available information
Realizing attention to limited resources and energy	Collected through questionnaires and available information
Recycling and using the surrounding lands	Collected through the questionnaire, observation and available information
Climate calm and comfort	Collected through the questionnaire, observations
Increasing vegetation	Collected through the questionnaire, observations

Study area

Based on the three-level physical divisions governing the municipal areas of Tehran, District (3) has 6 districts and 12 neighborhoods. Hassanabad-Zargandeh neighborhood with a population of 34527 people (population and housing census in 2011: 22) and an area of about 180 hectares is located in District 2 of District 3 Municipality of Tehran. The border of this neighborhood is limited to Sadr Highway from the north, Modares Highway from

the west, Dastgerdi axis from the south and Shariati Street from the east. The map shows the physical divisions of district (3) of Tehran and the location of the neighborhood and the relevant area in this area.

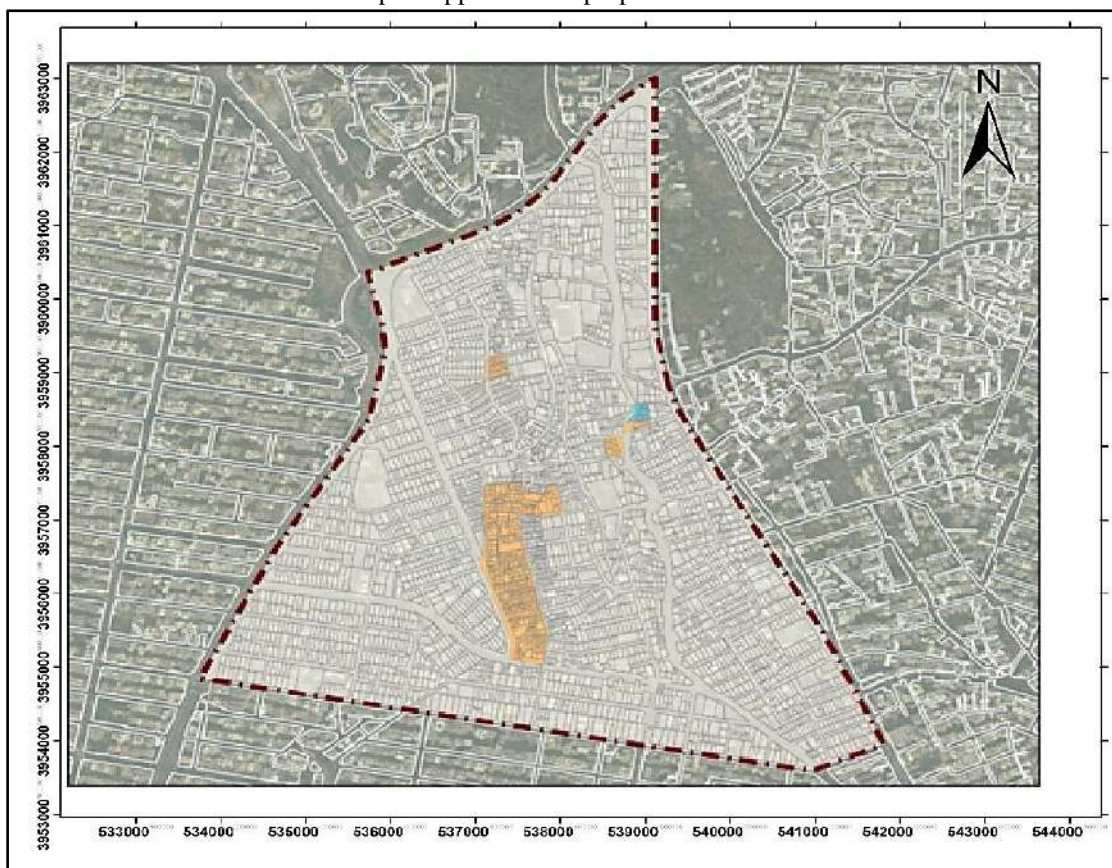
In Hassanabad-Zargandeh neighborhood, in addition to seven urban blocks located in the approved area of deteriorated texture, block number 37185 also has the conditions to apply deteriorated texture. This block, which has two conditions of instability and impermeability in the instability layer of the detailed design, the observations show that it also has the fine-grained condition. The details related to the grading of this urban block located in the area of Hassanabad-Zargandeh neighborhood are given below. (Hassanabad-Zargandeh neighborhood development document, 2016)

Table 3. Grading features of the plots located in block number 37285

Block No.	Number of plots	Minimum area of plots (square meters)	Maximum area of plots (square meters)	Average area of plots (square meters)	plots with an area of less than 200 square meters	
					Numbers	Share
37185	7	21	254	167	4	57%

Therefore, considering that 57% of the plots located in block 37185 have an area of less than 200 square meters, this block should also be added to the area of deteriorated texture in Hassanabad-Zargandeh neighborhood.

Map 1. Approved and proposed deteriorated texture



Research findings

After collecting and evaluating users' opinions, based on the questionnaire and also gaining sufficient knowledge of the sub-criteria of the theoretical framework, it is time to analyze this information. After preparing the SWOT table in the form of the main components of the research, it should be quantified to determine the most important strategic factors of each dimension. This table has been presented in the following. The sum of the final score from 1 to 1.99 indicates internal weakness; Scores from 2 to 2.99 indicate average condition and scores 3 and 4 indicate that the texture is in excellent condition.

According to Tables 3 and 4, the total final score for internal factors is 2.2921 and external factors are 2.16147, indicating the average condition of the texture

Table 3. SWOT internal factors

Dimension	Strength factors	Weight	Score	Final score	Dimension	Weakness factors	Weight	Score	Final score
Social	S ₁ Benefit from traditional-religious residential context and the possibility of identity building	0.0296	2	0.0592	Social	W ₁ Lack of attention to the views of different strata living in the issues and problems of the neighborhood	0.0191	1	0.0191
	S ₂ Defining suitable living space at the major neighborhood level and enclosed between networks	0.0154	2	0.0308		W ₂ Increased crime and social anomalies at the neighborhood level.	0.0341	3	0.1023
	S ₃ Proper distribution of religious practices such as mosques, shrines and husseiniyahs	0.0330	1	0.0330		W ₃ Drug use in passages and parks (Civil Street)	0.0219	1	0.0219
	S ₄ Existence of social and cultural centers including neighborhood hall and culture cinema	0.0247	3	0.0741		W ₄ burglary	0.242	2	0.0484
	S ₅ Utilizing senior experiences in neighborhood social participation	0.0158	1	0.0158		W ₅ Low identity and sense of belonging to the neighborhood and lack of participation of people in neighborhood affairs.	0.0380	2	0.076
	S ₆ The relative willingness to	0.0396	2	0.0792		W ₆ High population density	0.0412	3	0.1236

	participate in the improvement and renovation of worn tissue								
Economical	S ₇ Reasonable cost of living in the old texture	0.0280	1	0.0280	Economical	W ₇ Lack of investment briefings	0.0108	2	0.0216
	S ₈ Local donors and entrepreneurs are also active.	0.0381	2	0.0762		W ₈ Class conflict and large property value differences between old and new contexts	0.0320	2	0.064
	S ₉ High value of land and property	0.0370	3	0.0111		W ₉ Defect in providing basic and basic services	0.0150	2	0.03
Physical-Infrastructural	S ₁₀ There is a small reserve of land	0.0154	3	0.0462	Physical-Infrastructural	W ₁₀ Lack of sufficient financial resources for development and renovation	0.0381	2	0.0762
	S ₁₁ Land acquisition as the capacity to develop public spaces at the neighborhood level	0.0158	1	0.0158		W ₁₁ Traffic problems on main thoroughfares such as one-way construction street	0.0341	3	0.1023
	S ₁₂ Very favorable condition of sidewalks	0.0228	2	0.0456		W ₁₂ Low quality sidewalks with low width and variable in the current situation	0.0218	2	0.0436
Environmental	S ₁₃ Utilizing the presence of Qanats and canals and preventing its pollution	0.0245	1	0.0245	Physical-Infrastructural	W ₁₃ Existence of abnormal texture and non-standard and unsafe buildings	0.0381	3	0.1143
	S ₁₄ Existence of Zargandeh canal and green space around it	0.0329	3	0.0987		W ₁₄ Lack of public spaces	0.0341	1	0.0341
	S ₁₅ Existence	0.0360	3	0.108		W ₁₅ No subway station	0.0241	2	0.0482

of natural situations and favorable landscape	S ₁₆ Use of barren and unused lands for green spaces and parks	0.0398	2	0.0796		W ₁₆ area physical tissue distressedness in both residential and commercial areas	0.0393	3	0.1179					
						W ₁₇ texture fineness, distressedness and neglecting the traditional neighborhood texture values.	0.0420	3	0.126					
						W ₁₈ Chaos in the general view of the neighborhood and the view of the streets	0.0292	2	0.0584					
						W ₁₉ Lack of quality improvement of construction and renovation of problematic buildings	0.0361	2	0.0722					
						environmental	W ₂₀ Low attention to environmental quality indicators such as aesthetic indicators	0.0190	1	0.0190				
							W ₂₁ Unsuitable urban landscape in parts of the neighborhood	0.0169	2	0.0336				
							W ₂₂ Not paying attention to different dimensions of the landscape except the visual landscape	0.0140	1	0.0140				
					Total									2.2921

Using comparative analysis and evaluation matrix of internal and external factors, various strategies have been presented in 4 dimensions of social, economic, physical-infrastructure and environmental. These strategies fall into four categories in each dimension: SO (offensive strategy), ST (competitive strategy), WO (conservative strategy) and WT (defensive strategy). Therefore, the strategy of conservative strategy (WO) is of great importance. Then, by prioritizing the acceptable strategies obtained using the QSPM matrix, the final strategies have been selected as the top strategies. The method of scoring and ranking is based on the interview and the use of suggestions with experts and specialists in the field in the three cities of Tehran, which can be seen in the following tables.

Table. Top strategies of social dimension

Social dimension	Name	Strategies	scoring
	S6O3	Increasing the willingness to participate in the improvement and renovation of deteriorated texture and the possibility of attracting and disseminating the desired population with incentive strategies	1.25294
	S6T2	Reducing Poverty and Balancing Income - Costs by Increasing the Willingness to Participate in Improving and Renovating deteriorated texture and Reducing Damage	2.4906
	W1O1	Paying attention to the views of different strata of residents on the issues and problems of the neighborhood with the participation and presence of the people and residents of the area	0.8012
	W6T2	Control of income-cost balance by standardizing population density at the regional level	0.9826

Table 6: Top strategies of economic dimension

Economic dimension	Name	Strategies	scoring
	S8O6	Possibility of changing and modifying commercial and service uses with the active presence of local entrepreneurs	1.6768
	S9T4	Reducing fluctuations in the housing market with stable land and property prices	1.1036
	W8O7	Possibility of increasing private and public sector investment in the region by reducing class conflict and improving the quality of deteriorated texture in the region	1.0117
	W10T6	Controlling construction costs and creating sufficient financial resources for development and renovation	0.9949

Table 7: Top strategies of physical-infrastructure dimension

Physical-infrastructure dimension	Name	Strategies	scoring
	S12O8	Placement of the area in a suitable position of the access and movement system for transportation and pedestrians	1.3730
	S11T8	Dealing with problems and issues affecting the development of public spaces in the north and west of the region due to the Ayatollah Sadr and Modares highways	1.24156
	W11O8	Directing and distributing traffic load on some non-standard main thoroughfares such as Omrani Street	0.8734
	W11T7	Reduction of transit traffic by solving the problems related to the one-wayness of some main thoroughfares and the narrowness of the side thoroughfares in the area	0.8567

Environmental dimension	Name	Strategies	scoring
	S16O13	Use of barren and unused lands to create green spaces and parks to compensate for the lack of public spaces in the region	1.4803
	S15T11	Making the necessary arrangements for natural disasters due to the existence of natural situations in the area	0.8913
	W21O13	Use of barren and unused lands to create green spaces and parks to improve the quality of urban landscape in these areas	0.6473
	W20T9	Creating management solutions for problems caused by Sadr and Modares highways to reduce pollution and increase aesthetic qualities	0.4804

Research recommendations

According to the objectives of the research and based on the top strategies of each dimension, policies and suggestions have been formulated in accordance with the conditions of the case study, and then we will prepare a Policy Plan:

Table 9. Research policies

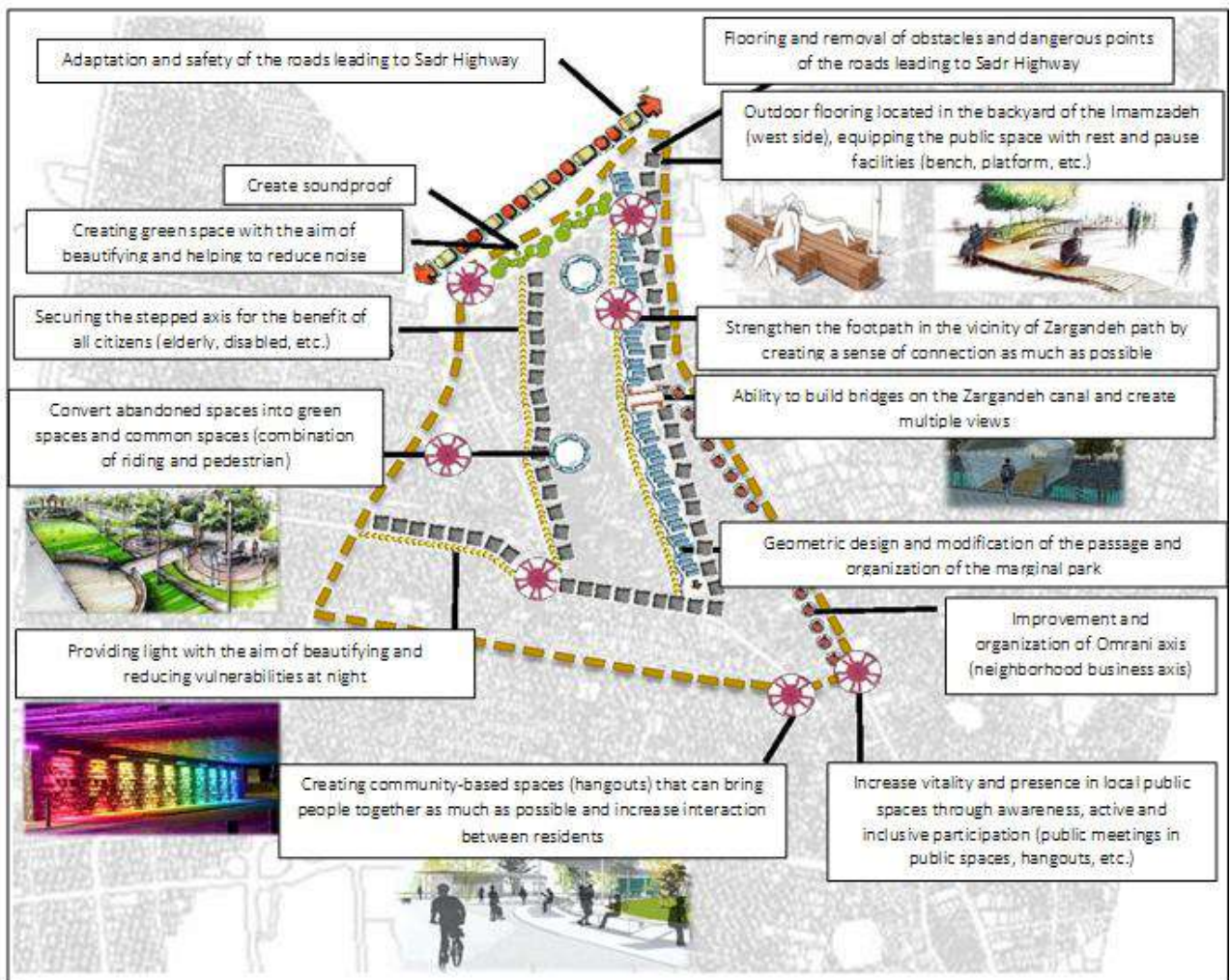
Macro goal	Micro goal	Strategy		Policy
Study of the role of urban regeneration in the dynamism and vitality of urban spaces in Zargandeh neighborhood of Tehran	1. Presenting criteria related to the dynamism and vitality of urban spaces in Zargandeh neighborhood of Tehran	Social	Increasing the willingness to participate in the improvement and renovation of deteriorated texture and the possibility of attracting and disseminating the desired population with incentive strategies	<ul style="list-style-type: none"> • Preparing a social map of neighborhood problems with the participation of neighborhood residents • Use of indigenous facilitators to build trust and pay attention to neighborhood development planning • Educating residents in different sections using indigenous forces
			Reducing Poverty and Balancing Income-Cost by Increasing the Willingness to Participate in Improving and Renovating Worn-Out Tissue and Reducing Damage	<ul style="list-style-type: none"> • Establishment of economic cooperatives at the neighborhood level according to the capabilities of the neighborhood and residents
			Paying attention to the views	<ul style="list-style-type: none"> • Increasing vitality and presence in local public

Presenting urban regeneration strategies for the dynamism and vitality of Zargandeh neighborhood of Tehran	economical	of different strata of residents on the issues and problems of the neighborhood with the participation and attendancy of the people and residents of the area	spaces through awareness, active and inclusive participation (public meetings in public spaces, hangouts, etc.) <ul style="list-style-type: none"> • Creating community-based spaces (hangouts) that can bring people together as much as possible and increase interaction between residents. Creating local communities and institutions and delegating authority from urban management to local management and representatives.
		Control of income-cost balance by standardizing population density at the regional level	<ul style="list-style-type: none"> • Ensuring the security of the property of low-income groups living in the area • Providing employment opportunities for area residents • Identifying the ability to reduce population capacity and applying it in the detailed design zoning system
		Possibility of changing and modifying commercial and service uses with the active presence of local entrepreneurs	<ul style="list-style-type: none"> • Capacity building to improve the quality of construction with the aim of increasing the awareness of owners and builders and trusted people and local authorities
		Reduce fluctuations in the housing market with stable land and property prices	<ul style="list-style-type: none"> • Examining the current prices according to the facilities and needs to control the price of land and property in the region • Establishing rules and restrictions for pricing and selling property in the area • Investigating and supervising violators of land and property sales
		Possibility of increasing private and public sector investment in the region by reducing class conflict and improving the quality of worn-out tissue in the region	<ul style="list-style-type: none"> • Facilitating the conclusion of partnership agreements between owners, builders (investors) and relevant trustees • Considering the dimensions of profitability as a win-win policy
		Control construction costs and create sufficient financial resources for development and renovation	<ul style="list-style-type: none"> • Establishment of a neighborhood bank to invest in social, cultural, economic and physical projects with the support of organizations. • Preparation and approval of incentive packages in worn-out tissue
	Physical-Infrastructural	Placement of the area in a suitable position of the access and movement system for transportation and pedestrians	<ul style="list-style-type: none"> • Stepping axis security for the benefit of all citizens (elderly, disabled and) • Designing and modifying the geometry of the passage and organizing the marginal park • Strengthening the walking path in the vicinity of Zargandeh path by creating a sense of continuity as much as possible
		Dealing with problems and issues affecting the development of public spaces in the north and west of the region due to the AyatollahSadr and Modares highways	<ul style="list-style-type: none"> • Customization and safety of roads leading to Sadr Highway (Sepid and Shokrabi) • Flooring and removal of obstacles and dangerous points of the roads leading to Sadr Highway
		Directing and distributing traffic load on some non-standard main thoroughfares such as Omrani Street	<ul style="list-style-type: none"> • Improving and organizing the development way (neighborhood business axis)
		Reduction of transit traffic by solving the problems related to the one-wayness of some main thoroughfares and the narrowness of the side thoroughfares in the area	<ul style="list-style-type: none"> • Defining the areapassages as far as possible according to standards • Establishing rules for crossing the main one-way streets and monitor its implementation • Changing one-way streets leading to intersections or squares to distribute traffic in the node
		Use of barren and unused lands to create green spaces	<ul style="list-style-type: none"> • Organizing, designing and improving the quality of the public space around the Imamzadeh and
	ro n m		

		and parks to compensate for the lack of public spaces in the region	<p><i>Qanat Alley</i></p> <ul style="list-style-type: none"> • <i>Outdoor flooring located in the area behind the Imamzadeh (west side) Equipping the public space with rest and pause facilities (bench, platform, ...)</i>
		Making the necessary arrangements for natural disasters due to the existence of natural situations in the area	<ul style="list-style-type: none"> • <i>Possibility of improving canals and surface water disposal route</i> • <i>Improving environmental quality to reduce casualties in critical situations.</i>
		Use of barren and unused lands to create green spaces and parks to improve the quality of urban landscape in these areas	<ul style="list-style-type: none"> • <i>Converting abandoned spaces into green spaces and shared spaces (combination of riding and pedestrian)</i> • <i>Ability to build bridges on the Zargandeh canal and creating multiple views</i>
		Creating management solutions for problems caused by Sadr and Modares highways to reduce pollution and increase aesthetic qualities	<ul style="list-style-type: none"> • <i>Providing light to beautify and reduce vulnerabilities at night</i> • <i>Creating green space with the aim of beautifying and helping to reduce noise and air pollution</i> • <i>Create soundproof wall</i> • <i>Designing and execution of acoustic landscape of the southern edge of the axis of Ayatollah Sadr Highway and the eastern edge of the axis of Modares Highway</i>

Source: Author

Map 2: Policy plan



III. CONCLUSION

In the neighborhood space organization, in accordance with the proposed strategies and goals, an attempt has been made to strengthen the relationships between the elements and components of the neighborhood, resulting in the dynamics of the neighborhood in the form of a system. In the meantime, the existing capacities of the neighborhood have been used to develop services (especially green and open urban space), as well as to improve the environmental quality through proper space design.

Hassanabad-Zargandeh neighborhood is surrounded by four arterial axes that act as strong edges. Also, the three intermediate axes of the texture act as collectors and diffusers. Meanwhile, different areas and functional levels of protection, activity and housing of two types, pure and mixed, have filled the neighborhood. Also, the main traffic junctions in this neighborhood have occurred at the southern edge and the middle part of the texture.

Strategies determine how to achieve strategic goals that may be offensive (using strengths to seize opportunities), adaptive (covering weaknesses to seize opportunities), contingent (using strengths to eliminate threats), and defensive (covering weaknesses in order to eliminate threats). Policies also clarify the executive direction of strategies. Hence, the purpose of using strategic planning is to improve performance as well as oriented thinking based on vision. Neighborhood regeneration systems can also use intentions as a system for prioritizing the allocation of financial and human resources. Evaluation and revision are discussed at each stage of strategic planning, as a major overhaul of the regeneration policy process is always necessary.

In order to achieve the goals of urban regeneration in Zargandeh neighborhood, it is necessary to clarify the basic goals of urban regeneration, integrated and coordinated intervention in all dimensions (social, economic, physical-infrastructure, environmental), the neighborhood's position in the superior designs is a necessary strategy.

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