

Enhancing the Quality of Life in Historical Contexts with an Emphasis on Urban Regeneration Approach (Case Study: Imam Ali Square in Isfahan and its Surrounding Texture)

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Abstract

In recent decades, inconsistent growth in urban environment has had an impact on the quality of urban life, and historical and valuable textures, resulting in urban problems and forcing urban officials to adopt new approaches. Accordingly, refinement and improvement approaches have evolved over time with urban renaissance as the new approach. The current research assesses the quality of urban life in the historical context of Imam Ali Square in Isfahan, based on social, economical and physical criteria with urban renaissance. The research has used SWOT technique and Analytic Network Process (ANP) for the analysis. The research results showed a significant relationship between criteria and sub-criteria with an improved quality of urban life and the alternative of renaissance. The economic criterion was the most important element for improving the quality of life. The satisfaction level of the neighborhood criteria was for social quality, and the housing and land market criteria were considered for economy. Flexible development plan was considered as one of the important factors for monitoring new constructions and in urban renewal alternatives. The impact on the quality of life was also recognized in the study area. Finally, strategies such as balancing the functions of the texture by injecting business, tourism, etc., formulating urban planning rules, taking into account land economics, and monitoring the human system in new constructions were studied in order to avoid the depreciation of valuable buildings.

Keywords: Quality of Life; Historical Texture; Urban Renaissance; Analytic Network Process; SWOT; Imam Ali Square in Isfahan

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1. Introduction

In the twentieth century, urban growth increased the share of urban population and made urbanization a dominant way of life. Although urbanization is considered as one of the most important indicators in the field of welfare, social and economic development, its rapid growth can reduce the per capita of many social and economic facilities, and its consequences can be reflected in the form of reduction of the quality of life in various urban areas. Therefore, the quality of urban life was one of the first study areas that, along with urban development, gradually began to be considered by urban specialists in the 1930s (Akbari, 2010: 122). Quality of life is to determine the satisfaction and dissatisfaction of individuals and groups with different aspects of life. Nowadays, quality of life is the main goal for planning, which is studied by thinkers and planners (Ghalibaf et al., 2011: 33). The neighborhood represents the peak of the spatial manifestation of urban life and the presence of citizens, which due to lack of proper planning, faces massive urban problems today, reducing the quality of urban neighborhoods. According to the conditions of each period, various approaches have been proposed to fit the existing conditions. One of the most important changes is the physical and two-dimensional perspective into a new perspective based on the existing environmental capacities, and the use of environmental potentials in all aspects of the social and economic life. Using new approaches such as urban renaissance, we can rehabilitate these neighborhoods. In the planning process, therefore, we can use a renaissance approach at the urban neighborhood level to improve the quality of these neighborhoods by exploiting their potentials.

The area of Imam Ali Square of Isfahan is one of the old neighborhoods with a historical background. The area can be of potential use to promote quality and eliminate the inappropriate conditions and eventually achieve a sustainable neighborhood. Considering the main purpose of this research, that is to promote the quality of life in the historical context with an emphasis on the urban renewal approach, this study answers the following questions:

- How can one improve the quality of life based on renaissance approach and through economic, social and physical indicators which can be effective in urban planning, especially planning to live in the historical context of Imam Ali Square?
- What is the quality of life in Imam Ali Square of Isfahan in terms of physical-physical characteristics?
- What is the quality of life in Imam Ali Square in terms of social indicators?
- What is the quality of life in Imam Ali Square of Isfahan from the standpoint of economic index?
- To what extent can the use of Urban Renewal Approach be effective in restoring valuable and historical urban textures?

2. Theoretical Fundamentals of the Research

2.1. Concept of Quality of Life

In the literature on quality of life, Mulligan et al. (2004) have extensively defined it as the satisfaction that a person has of his physical and human environment, and the conditions related to the scale of the family, the neighborhood, etc., which can affect the personal behavior of the people. It has also been proven that different people may have different observations, and thus make different mental judgments about factors such as the specific characteristics of their urban environment that might affect their quality of life. In order to examine the aspects of quality of life, it is necessary to use modeling frameworks and aggregated data to utilize those frameworks in a

specific context (Marans, 2012: 2). Also, urban quality of life is an attempt to create a healthy city and provide suitable and accessible public services in the framework of sustainability (Hataminejad et al., 2012: 45).

Table1 Major Criterion for assessing quality of life

Main areas	Indicators
Social	Quality of neighborhood relationships, Quality of social security, Quality of social participation, Quality of satisfaction from the neighborhood, Literacy percentage (women and men)
Economic	Average land price, average income, ownership type
Physical	The quality of residential units in terms of citizens and researchers
Access to services, facilities and urban equipment	Access to green and open space, access to urban facilities and services, overall satisfaction with access to amenities
Public transportation	Access to public transport and residential units
Environmental health quality	Quality of streets, alleys and passages; quality of waste disposal and waste

(Source: Rahnemaie et al., 2011)

2.2. Concept of Urban Renaissance

Urban refurbishment has remained from the periods of evolution and progress, and today its presence is called urban regeneration in its recent approach. The coexistence and peaceful encounter of styles and cultures is the last stage of transformation in the concept of restoration with the beginning of the third millennium and the entry to the 21st century as a new definition of urban regeneration. In this definition, the cultural and artistic dimensions and originality of the part have become dominant in urban neighborhoods, and various theories have tried to justify the creation of vibrant urban dynamic environments (Hajipour, 2007: 25).

2.3. Approaches to Assess Quality of Life

Two subjective and one objective approaches assess the urban quality of life in urban studies (Lee, 2008). These approaches are often separately employed and rarely combined to measure the urban quality of life. The quality of life in the mental dimension reflects the perception and assessment of individuals from their own state of life and is measured using the mental indices. The mental quality of life can be measured in a variety of ways; one way can be the cumulative amount of satisfaction in different realms of life. Based on this method, life is divided into different realms and the combination of satisfaction from each territory represents the overall quality of life.

The simple model shows that quality of life in general, which is the sum of certain amount of satisfaction in different realms and aspects of life (Pacione, 2003: 64).

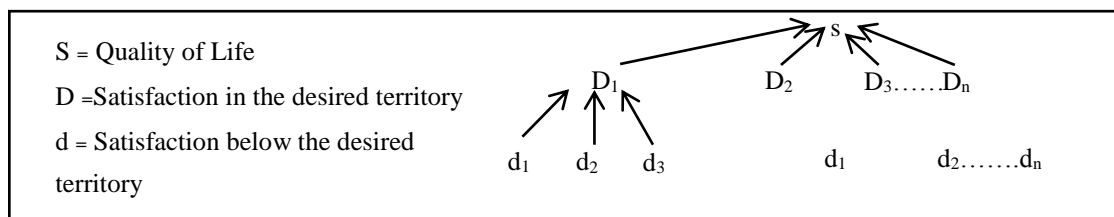


Fig 1 Simple structural model of quality of life (Source: Pacione, 2003: 65)

2.4. Urban Renaissance Approach

The aim of refurbishing old urban texture reflects the different levels of intervention, a change in the meaning and content of new aspects and areas of urban renewal.

- The nineteenth century and the consequences of the industrial revolution
- Protection and development in the first half of the twentieth century
- The 1950's urban rehabilitation approach
- The 1960's urban renewal with a revival approach (urban regeneration)
- The 1970's urban renovation with urban renewal
- The 1980's urban renovation with a view for redevelopment or economic regeneration
- The 1990's look of urban regeneration
- The third millennium's urban renovation with urban renaissance
- Reconstruction of the recent approach in restoration and improvement (Falamaki, 2007:

168)

2.5. Types of Urban Texture

It is possible to distinguish among different layers of urban texture due to the spatial growth and development processes of cities. For example, in the major cities of Iran, seven species of urban texture can be distinguished in the study of the typology of urban texture (Mashhadizadeh Dehaghani, 1994: 425). These textures are historical texture, old city texture, middle urban texture, urban new texture, surrounding texture of the city, satellites texture, or bulging expansion of the city, and the expansion of the metropolitan city with the creation of new cities.

Historical texture can be considered as the core of the city. The castle, the citadel or the Kohdjiz can be referred to as the historical texture of the city built in the past (in Iran before the Qajar period). The citadel, tower, castle and the main cores of cities like Hamedan, Shiraz, Isfahan, Yazd and Tabriz have such features (Shamaei & Pourahmad, 2005: 85).

3. Theoretical Framework

Considering the concepts and materials mentioned about the quality of life and urban regeneration, as well as the opinions expressed on the subject, we find that the three social, economic and physical indicators are among the most important factors in promoting the standard of living. Therefore, based on the information obtained and the researchers' studies and opinions, they are summarized in Fig 2. These factors affect the quality of life, which leads us to achieve the goal based on the approach of renaissance.

This research implements an Analytic Network Process (ANP) model, based on the concepts mentioned, as well as the strategies of the urban renaissance movement and the alternatives. In order to better understand their relationship with the social, economic and physical criteria and sub-criteria, the priority of each is measured.

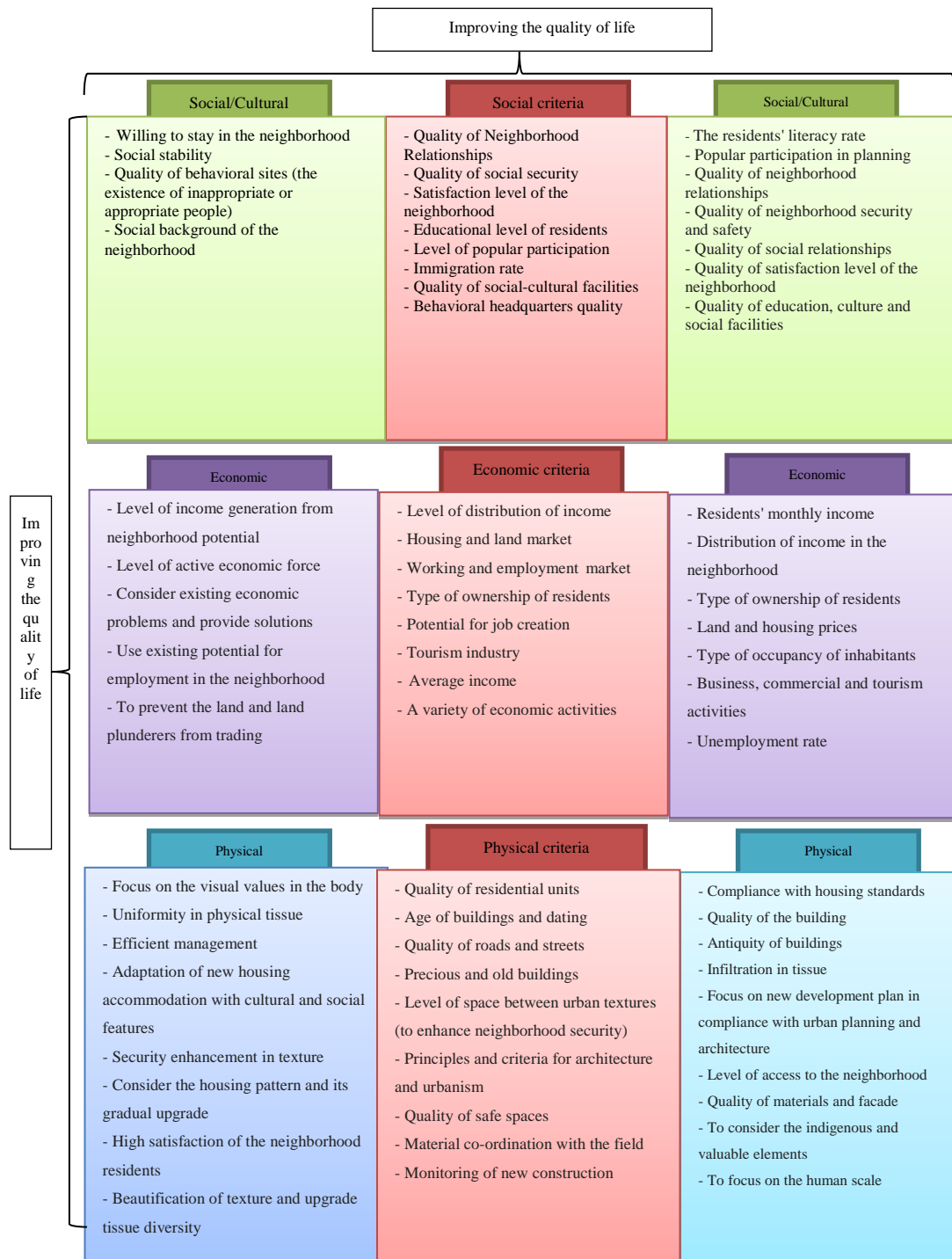


Fig 2 Theoretical framework of the research

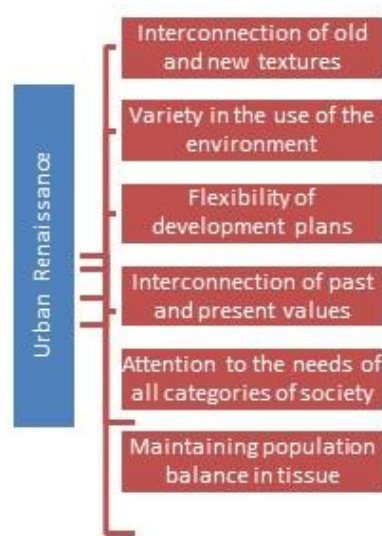


Fig 3 Urban Renewal Options

4. Research

Mostafa, a resident of Egypt, in a study entitled '*Quality of life indicators in major urban areas case study: Kasr el Street in Cairo*' in 2012, concluded that the development of historical regions should be based on the economic, social and environmental dimensions, with the aim of addressing the quality of life in order to solve new urban issues. In historical regions, quality of life indicators based on quantitative and qualitative information as well as stakeholders should be determined and laws should be established for people's awareness. Further, in planning for valuable areas, an appropriate strategy and perspective for their future are to be developed.

Gavrilidis et al., in a paper entitled '*Index of urban quality perspective - planning tool for assessing urban landscapes and improving quality of Life*' in 2016, argued that the expansion of urban areas has increased the access of people to modern facilities and urban infrastructures, but the quality of life has declined due to lack of creation of social balance in large cities. Landscape can be considered both as a high and low quality of living. This study evaluates the urban landscape using the ULQI.

In a study by Cabrera et al. (2016) entitled '*Multivariate assessment through the exclusion index: planning concepts for quality of life and health care and access in the Quito quarter of Ecuador*', they concluded that there are certain differences in terms of quality of life and health care and access, which have affected the deprivation of individual's life and their quality of life, and that a proper program for eliminating these deprivations should be made and policies need to be adopted to promote the lives of citizens.

5. Methodology

The research type in terms of purpose is practical, having a descriptive-analytical method. The information gathered was through library and field survey. The data gathering tool used in library was fingerprinting and electronic resources. Interviews and questionnaires were used for field survey. In this research, quantitative and qualitative methods were used to assess the validity of the questionnaires, and SPSS Kaiser-Meyer-Olkin (KMO) and Cronbach's alpha were used to ascertain

the reliability of the questionnaires. SPSS software was also used for analyzing the demographic variables, and ANP method was used to prioritize the indicators. The statistical population was the citizens of the surrounding area of Imam Ali Square in Isfahan including residents, business people and also experts in urban affairs. In the process of distributing the questionnaire, the sample population was in two levels: 1) from 24248 people in the area of Imam Ali Square according to the census of 2011 Iranian Statistics Center, 15 people, and 2) among the experts of the city with a population of 40, 15 individuals were selectively chosen and were asked to respond to the questionnaires. Experts also assisted in providing SWOT matrices and strategies.

6. Analytic Network Process (ANP)

The analytic network process, in contrast to the Analytic Hierarchy Process, can handle the interrelationships between decision levels and indexes by obtaining compound weights through super matrixes. The purpose of the super matrix in the analytic network process is to partition the matrix so that each sub-matrix can be created to set the relationships between two elements or clusters in the network. The application of internal and external interrelations is, in fact, the best method that can be used to identify and introduce the impact of concepts or influences among clusters and factors with an attention to a particular factor.

The analytic network process can be summarized in four steps (Saaty, 1996).

- Making the model: a) Determining the dependency between clusters; b) Specific dependence between cluster elements
 - Performing paired comparisons and extraction of relative weight vectors
 - Formatting the super matrix to calculate the final weight in a system with dependency effects
 - Calculating the vector of super matrices weighted in step 3

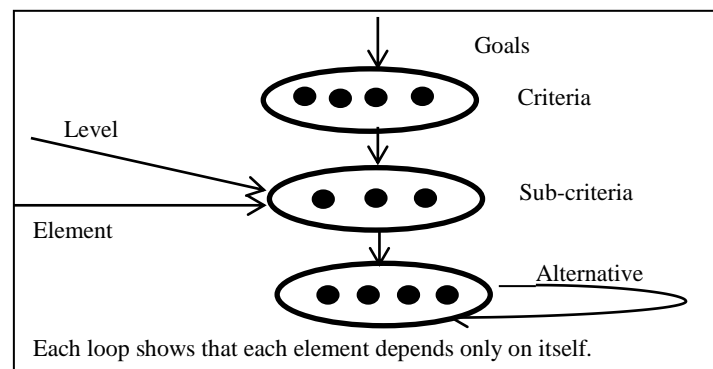


Fig 4 Hierarchical structure (Source: Saaty, 1998)

7. Study Area

Isfahan province with an area of 15,080.34 square kilometers is considered the sixth province of the country in terms of area and is located in the center of Iran's plateau. This province neighbors from the North to Semnan and Qom provinces, from the East to South Khorasan province; from the South to Yazd, Fars, Kohgiluyeh and Boyerahmad provinces and from the west to Chaharmahal and Bakhtiari, Lorestan and Markazi provinces. According to the census of 2016, its population

was 5,120,850, which was approximately 6.5% of the population of the whole country, with 4,168,219 people living in cities.



Fig 5 Location of Isfahan Province Source: Tourism Guide of the Provinces of Iran, 2013

The third district of Isfahan with the intersection of Chaharbagh historical axis totally forms the city's historical and central boundaries that flow from the south to the Zayandehrud River and the surrounding streets to Kamal Ismail and the first Moshtagh, from the north to the streets of Soroush and Adib, from the east to the Bozorgmehr Street and from the west to the Chaharbagh historical axis.

The area of this region is 1152 hectares, which is 17.4% of the central area and it surrounds 5.75% of the total area of the Isfahan master plan. The population of this area is 109968 people. The location of the city of Isfahan is marked as 3 in the Fig 6.

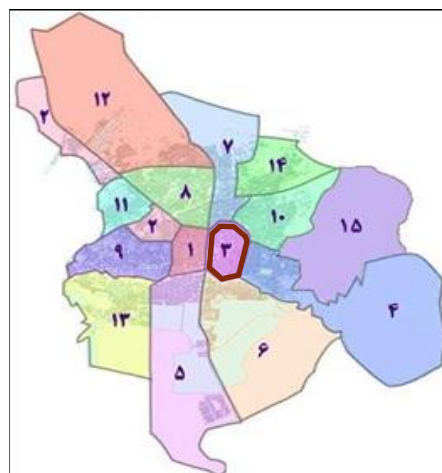


Fig 6 Range of regions. Source: Department of Urban Planning and Architecture of Isfahan

The total study area is 264.5606 hectares with a population of 24248 people. This street is limited to the north with Ebne Sina Avenue, and with the Kamal Street in the northeast, Sonbolestan Avenue in the northwest, Hakim Mosque on the west, Valiasr street in the southwest, and with Ahmadabad and Hafiz streets in the south east.

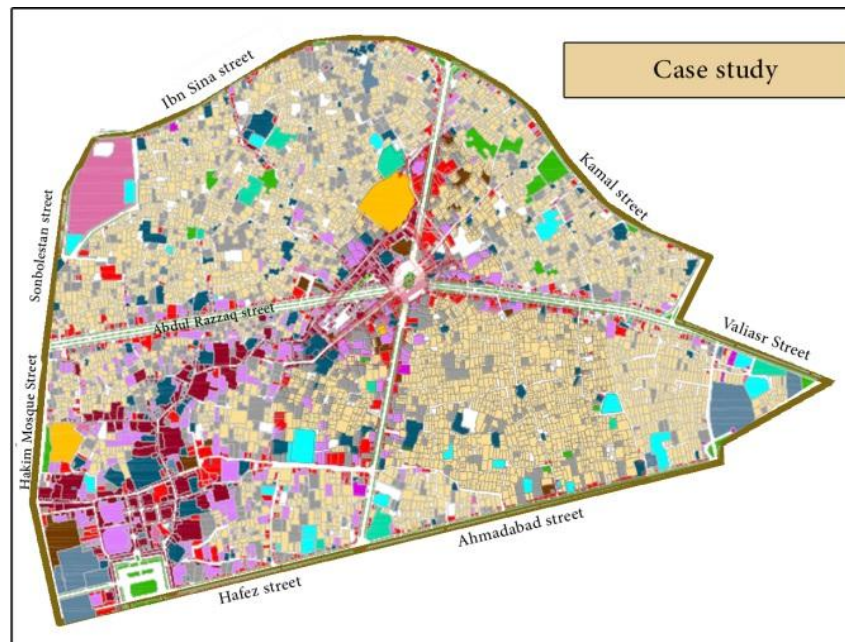


Fig 7 Study area. Source: authors

8. Research Findings

8.1. SWOT Analysis of the existing conditions based on three social, economic and physical systems

In order to achieve a better understanding of the existing condition with the field impression of the author, the current condition was surveyed based on the SWOT model so that with the help of the current position of the area, it could be compared with the ideal conditions through prioritizing with ANP analyses. This condition was studied in the Likert spectrum shown in Fig 8 and 9. The following tables illustrate this review.

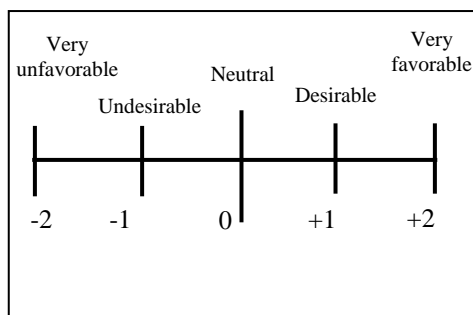


Fig 8 Likert Opportunities and Strengths

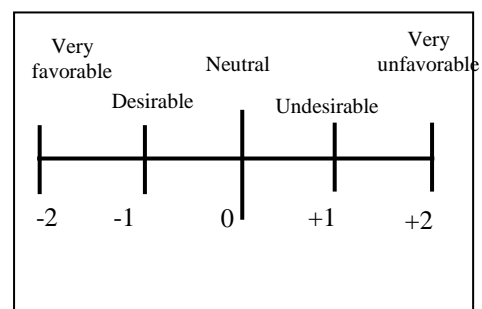


Fig 9 Likert spectrum for Weaknesses and Threats

Table 2 Analysis of the social system in the present condition

Weakness and Threats		Strength and Opportunities	
Threat	Weakness	Opportunity	Strength
General ethnic and social separation in the city (+1)	Reducing diversity in the social texture of the inhabitants (+1)	Attracting tourists through the potential of the study area (-1)	The historical and residential identity of the old neighborhoods of the city (+2)
Lack of attention and disregard for the renovation of worn out neighborhoods (+1)	Increased housing for low-income and immigrant people (+2)	Attracting housing investors to this region and as a result, attracting high-income social strata (-2)	Relative ownership of neighborhood residents (-1)
The continuation of the immigration trend of residents from the neighborhoods of this area (+2)	Unwillingness of young families to reside in neighborhoods of the study area (+2)	Considering policies to support upgrading and modernization of worn-out tissues (-1)	The existence of old neighborhoods and strengthening the sense of belonging to the inhabitants (-1)
	Increased motorcyclists and traffic jams (+2)	Create active hangouts based on existing historical potential for different people and promote social interactions (-2)	
	Weak neighborhood relationships among Range Residents (+1)	Increasing the sense of belonging of residents through their participation in activities such as beautifying the environment (-1)	
	Reduced social security due to the lives of delinquents within the scope of the study (+1)		
	Increasing residence for residents with low educational levels (+2)		
	Weak popular participation in promoting the quality of the neighborhood (+2)		
	Dissatisfaction of residents of the neighborhood of habitat in the tissue (+1)		
	Low quality in cultural facilities within the desired range (+1)		

(Source: Authors)

Table 3 Analysis of the economic system in the present condition

Weakness and Threats		Strength and Opportunities	
Threat	Weakness	Opportunity	Strength
Accommodation for different strata of income due to low land prices (+2)	Imbalance and balance between economy and space in households and land uses (+2)	High investment capability to establish service centers than to other range of areas of Isfahan due to low price of land (+1)	Join between neighborhood centers and employment centers in the studied area (+1)
The risk of dual polarization of the city due to economic reasons, due to the migration of people from this area to prosperous neighborhoods in the city (+2)	Low income rate for inhabitant in the range (+2)	Create diverse activities around historic textures to attract tourists (-1)	The ability to create new businesses due to the presence of tourism index elements (+2)
Probability of unwillingness of people to participate in modernization due to economic potential (+2)	The low capacity of renovation and improvement in the texture due to the low income level of people in this area from economics point of view (+1)	Use existing potential (historical, cultural, tourism, etc.) in texture to create new businesses (-1)	
The migration of indigenous inhabitants and the replacement of immigrant populations in the texture and as a result, increasing rental ownership (+2)			

(Source: Authors)

Table 4 Analysis of the physical system in the present condition

Weakness and Threats		Strength and Opportunities	
Threat	Weakness	Opportunity	Strength
Burnout of buildings within the fabric of the area due to non-refurbishment and renovation (+2)	Range with high density and low height (+2)	Use of ruined and deserted buildings to create urban space (-2)	The existence of horizontal and vertical rhythms in valuable historic monuments (Imam Ali Square, Jame Mosque, etc.,) (+2)
Possibility of destroying identity and	Lack of proper illumination of the index	Pay attention to the physical quality of space	The emphasis on the first floor line - fitted

characterize and repeating inappropriate actions with texture (+2)	element (+1)	with actions such as flooring, lighting, furniture, etc., (-1)	with pedestrian visions to fit the human scale (+1)
Inappropriate planning causes the loss of visual and physical integrity of the elements and components of the old texture in area and the city (+1)	The lack of diversity and existence of field-empty-spaces on the street road line and make a contrast on the street path (+1)	The necessity of designing the walls, fuselages and views of new buildings in accordance to the field (-1)	Integrated body: unity, visual fit and sense of place (Imam Ali Square and Jame Mosque) (+2)
The loss of spatial identity of the texture due to the destruction of historical elements and lack of coherence of the old market (+1)	The breakdown of the old texture of the area through the new streets (+2)	Consider the optimal enclosure in order to see the main elements of the neighborhood (-1)	Being memorable of historical and religious for the presence of people (+2)
High damage caused by unexpected accidents due to lack of physical stability of building (+2)	Lack of integrity and coordination in the components and pillars of the views inside the fabric and the neighborhoods (+2)	Maintain the proportions in the walls (-1)	Cause to climatic comfort through shading due to the presence of snow in some areas. (+1)
Lack of attention to the field of new construction (+1)	Many buildings are old (+2)	Using of horizontal lines and coordinating of fuselages to prevent visual disturbances (-2)	Existence of spaces that are match with environmental features of the market, such as markets (+2)
	The existence of small and inadequate passages (+2)	The use of mosque materials in adjacent views and conjunction of fuselages to define identity closeness and emphasis on index elements (-2)	Desirable views on key elements such as Jame mosque and Ali alley Minaret, etc., (+1)
	Low quality residential units within the range (+2)		
	Non-observance of the principle rules of urban planning and architecture in new construction (+1)		

(Source: Authors)

After formulating the SWOT matrix, it is necessary to define the goal, criteria, sub-criteria and options and to prioritize according to the model in order to shape the ANP process.

8.2. Target identification

The goal of this assessment is to improve the quality of the living environment.

8.3. Identification of criteria

The criteria for this study are social, economic and physical that help us to achieve the goal.

8.4. Identification of the sub-criteria

After improving the quality of the living environment in the proposed model, the following criteria were summarized:

Table 5 Social, economic and physical criteria

Physical criterion		Economic criterion		Social criterion	
Sub-criteria	Abbreviation	Sub-criteria	Abbreviation	Sub-criteria	Abbreviation
Quality of buildings	c1	Distribution of income	b1	Quality of neighborhood relationships	a1
Age of buildings	c2	The housing and land market	b2	Quality of social security	a2
Quality of passages and streets	c3	Labor market and employment	b3	Quality of satisfaction level from the neighborhood	a3
Quality of valuable and historic buildings	c4	Type of ownership of residents	b4	Educational level of residents	a4
Level of mass and space between urban texture	c5	Potential of employment, including commercial and historical, etc.,	b5	Level of popular participation	a5
Observing principles and criteria of architecture and urban planning	c6	Tourism industry boom with regard to the strengths of the study area	b6	Immigration rate	a6
Quality of safe spaces for residents and tourists	c7	Average income	b7	Quality of cultural and historical facilities	a7
Quality of materials in harmony with the field	c8	Different economic activities	b8	Quality of behavioral headquarters and hangouts	a8
Supervising new	c9				

construction					
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(Source: Authors)

8.5. Identification of the alternatives

Based on the theoretical framework and the experts' and residents' opinions of the study area and given the high number of alternatives to be applied in the proposed model, the alternatives were summarized in Table 6.

Table 6 Urban Renaissance alternatives

Urban Renaissance	
Abbreviation	
d1	Interconnectedness between old and new texture
d2	Diversity of using the environment
d3	Proper and flexible development plans
d4	Interconnectedness of past and present values
d5	Attention to the needs of all strata
d6	Maintain population balance

(Source: Authors)

In this research, the network analysis model was used to improve the quality of life and to select alternatives for the urban regeneration approach. The three criteria of the model are social, economic and physical, and the sub-criteria were based on the theoretical framework of the project. After identifying the criteria, sub-criteria and alternatives for the network structure model, the Analytic Network Process was planned by experts and residents around Imam Ali Square. Due to the dependencies between criteria, sub-criteria and alternatives, the network structure of the problem was obtained. It should be noted that all criteria, sub-criteria and alternatives are interrelated and affect each other.

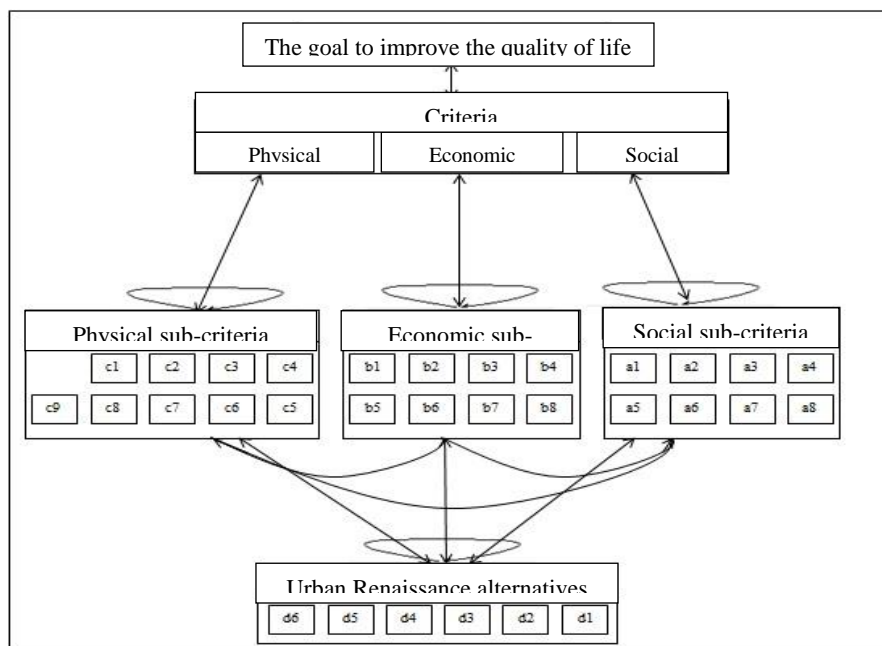


Fig 10 ANP Model

8.6. Obtaining the weight of sub-criteria and alternatives according to the Analytic Network process

A couple of comparisons need to be made in the Analytical Hierarchy Process. First, which criterion is more important in terms of the purpose? Secondly, which alternative is the most important among other criteria? In the Analytic Network Process, however, to prioritize the criteria instead of comparing them to the goal, the question arises as to which criterion should be considered more than other options?

In this model, the prioritization of alternatives is similar to the process of hierarchical analysis. The difference between this model and the Analytic Hierarchy Process is that it takes into account the dependency between alternatives, sub-criteria, and criteria. For example, if a criterion or alternative is dependent upon another criterion or alternative, a pairwise comparison is made to examine the severity of the dependency or the effect.

The Super Matrix Approach solves the problem of the analytic network process by forming a cloud matrix. The completion of each of the super-matrix sections depends on the type of problem and the dependencies that exist between the alternatives and the criteria.

The shape of the super matrix is shown in Fig 11.

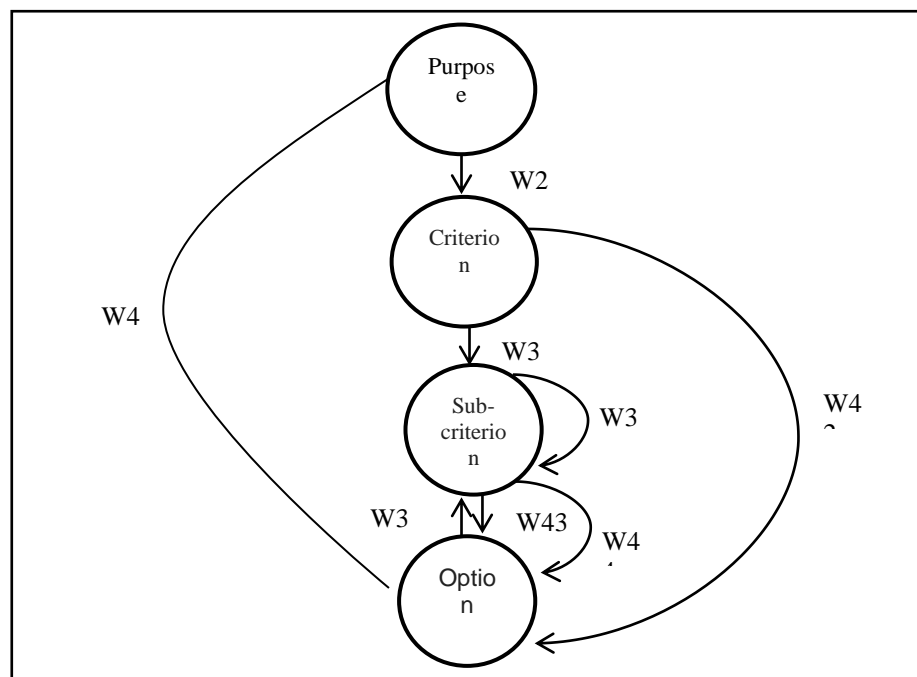


Fig 11 General matrix of this research

The main form of the super matrix is illustrated in Table 7.

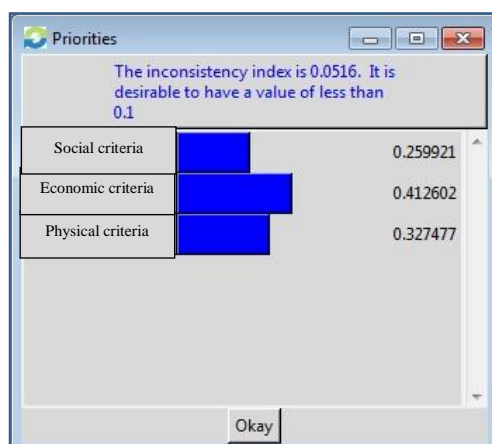
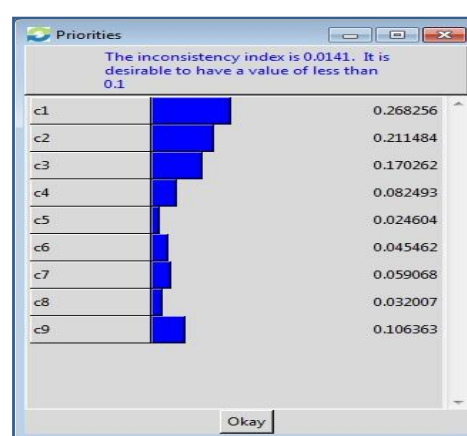
Table 7 Super matrix

		Purpose	Criterion			Sub-criterion			Option
		Improving the quality of life	Physical	Economic	Social	(c1,c2,c3,...,c9) Physical sub-criteria	(b1,b2,b3,...,b8) Economic sub-criteria	(a1,a2,a3,...,a8) Social Sub-criterion	(d1,d2,d3,...,d6) Renaissance options
Purpose	Improving the quality of life								
Criterion	Physical	A							
	Economic								
	Social								
Sub-criterion	Physical sub-criteria (c1,c2,c3,...,c9)		B			C			D
	Economic sub-criteria (b1,b2,b3,...,b8)								
	Social Sub-criterion (a1,a2,a3,...,a8)								
Option	Renaissance options (d1,d2,d3,...,d6)	E	F			G			H

(Source: Authors)

9. Paired Comparisons and Prioritization

This study analyzes all the levels for example, doing a paired comparison and prioritization of the criteria against the goal, the criteria against criteria, the alternatives against the goal, and the sub-criteria against criteria as shown in Figures 12-18.

**Fig 12** Comparing criteria against the goal**Fig 13** Prioritizing physical sub-criteria against physical criteria

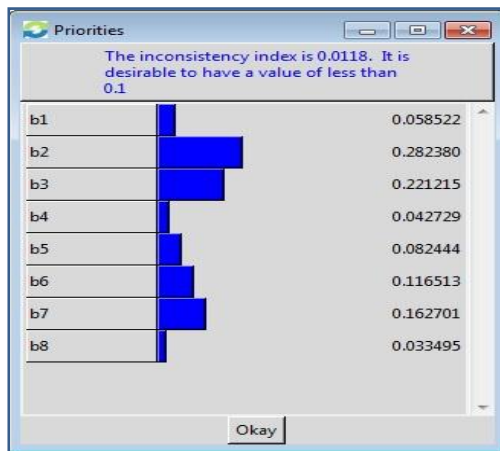


Fig14 Prioritizing the economic sub-criteria against the economic criteria

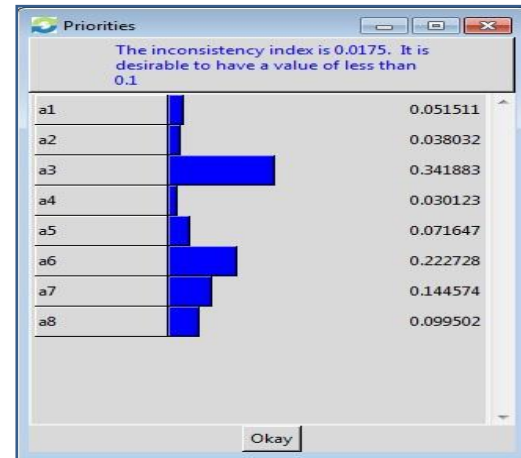


Fig 15 Prioritizing the social sub-criteria against the social criteria

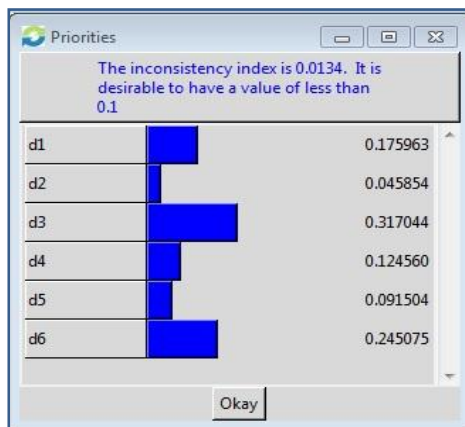


Fig16 Prioritizing urban renaissance alternatives against the goal

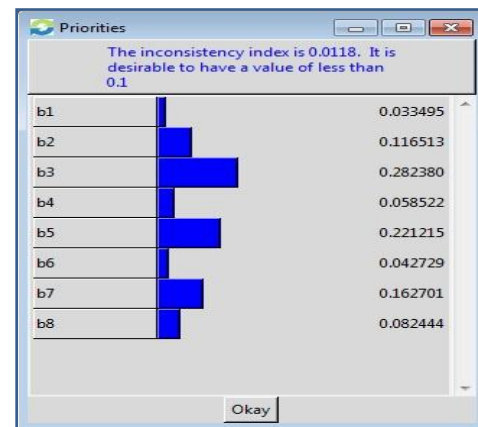


Fig 17 Prioritizing the economic sub-criteria to maintain population balance (d6)

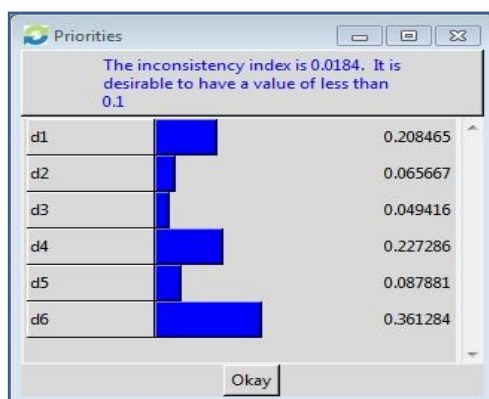


Fig 18 Prioritizing Urban Renaissance alternatives against Social Criteria

10. Ultimate weights

After checking and weighing based on the dependencies, the final weights obtained are as follows. The importance of criteria in relation to the purpose of all dependencies: the three social, economic and physical criteria were prioritized according to the goal. Regarding priority, the economic criterion has the highest rank.

Table 8 Final weights of the criteria according to purpose, with consideration of all dependencies

Row	Criterion	Weights	Rating	Inconsistency rate
1	Social criteria	0.25992	3	0.0516
2	Economic criteria	0.41260	1	
3	Physical criteria	0.32748	2	

(Source: Authors)

The importance of sub-criteria in terms of purpose with the considerations of all dependencies:

Based on the weights obtained, the rankings show which of the social, economic, and physical sub-criteria more significantly affects the improvement of quality of life. In social sub-criteria, the quality of satisfaction from the neighborhood is the most important one; in the economic sub-criteria, the impact of housing and land market is the most important aspect, and eventually for the physical sub-criteria, the structure of monitoring new constructions is regarded as the most important element.

Table 9 Final weights of the sub-criteria with consideration of all dependencies

Inconsistency rate	Row	Criterion	Weights	Rating	Inconsistency rate
1	Social sub-criteria	Quality of neighbourhood (a1)	0.06727	8	0.0175
2		Social Security Quality (a2)	0.08880	6	
3		Quality of satisfaction level from the neighbourhood (a3)	0.22937	1	
4		Educational level of residents (a4)	0.09872	5	
5		Level of popular participation (a5)	0.08488	7	
6		Immigration rate (a6)	0.15500	3	
7		Quality of cultural and historical facilities (a7)	0.15592	2	
8		Quality of behavioral headquarters and hangouts (a8)	0.12004	4	
9	Economic sub-criteria	Distribution of income (b1)	0.07311	8	0.0118
10		Housing and land market (b2)	0.23353	1	
11		Labor market and employment (b3)	0.13493	2	
12		Type of ownership of residents (b4)	0.13306	3	
13		Potential of employment, including commercial, historical, etc., (b5)	0.11449	4	
14		Tourism industry boom with regard to the strengths of the study area (b6)	0.11425	6	
15		Average income (b7)	0.11443	5	
16		Various economic activities (b8)	0.08219	6	
17	Physical sub-criteria	The quality of buildings (c1)	0.15837	2	0.0141
18		Lifetime of buildings (c2)	0.15195	4	
19		Quality of passages and streets (c3)	0.08733	6	
20		Quality of valuable and historic	0.15432	3	

		buildings (c4)			
21		Level of mass and space between urban texture (c5)	0.03557	9	
22		Observing the principles and criteria of architecture and urban planning (c6)	0.11149	5	
23		Quality of safe spaces for residents and tourists (c7)	0.03619	8	
24		Quality of materials in harmony with the field (c8)	0.07011	7	
25		Supervising new construction (c9)	0.19467	1	

(Source: Authors)

The importance of urban renaissance alternatives with regard to the goal with consideration of all dependencies:

In order to improve the quality of life, renaissance alternatives are also prioritized, and this is a two-way communication because if urban regeneration occurs, the quality of life will be improved and vice versa.

Table 10 Final weights of the renaissance alternatives according to the goal with consideration of all dependencies

Inconsistency rate	Row	Criterion	Weights	Rating	Inconsistency rate
1	Urban Renaissance	Interconnectedness between old and new texture (d1)	0.19820	3	0.0134
2		Diversity of using environment (d2)	0.07679	6	
3		Proper and flexible development plans (d3)	0.25325	1	
4		Interconnectedness of past and present values (d4)	0.15835	4	
5		Attention to the needs of all strata (d5)	0.10823	5	
6		Maintain population balance (d6)	0.20518	2	

(Source: Authors)

11. Conclusion

Each neighborhood, according to its culture and history, has created a context to meet the needs of its inhabitants. These needs are both physical and non-physical, which can be dealt with regarding the present needs through proper planning, in addition to preserving the identity and culture of the textures. Based on the studies and analyses which were carried out, it can be concluded that the quality of urban life has different physical, social, economic and environmental dimensions. The city is made up of neighborhoods that have unique social and cultural features. In this research, an attempt was made to restore and maintain their identity and culture in order to promote the quality of life in the neighborhoods; in spite of the existence of cultural, religious, and physical differences between them, social interactions are established in the direction of unity in the same plurality as in the school of Isfahan. Different cultures and neighborhoods are seen with their own specific characteristics as city ideals. The study area has a special status in terms of physical, cultural, tourism, and religious aspects. In the city, the historical background and textures of the third district of Isfahan are of particular importance.

Quality improvement based on the renaissance approach covers all dimensions like the physical, social, economic and environmental ones. In this study, three criteria were considered and the results are presented in Table 11.

Table 11 Final weights of the regenerative options according to the goal with consideration of all dependencies

Goal	Dimension	Prioritization	Current situation	Approach
Promoting quality of life with an emphasis on the approach of renaissance	Social	Satisfaction level of the neighborhood	Undesirable	<ul style="list-style-type: none"> - Balancing the functions of tissue by injecting business, tourism, etc., -Balancing social and physical needs of residents -Turning ruined buildings into urban spaces; to increase social interactions -The priority is to walk around the paths leading to the indicator elements
		Quality of cultural and historical facilities	Undesirable	<ul style="list-style-type: none"> -Define a range based on cultural and historical values -Restoration of all valuable buildings and representing identity, history and culture -Controlling traffic around index elements and sector identity -Priority to the deployment of historical and cultural elements along the tourist routes
		Immigration rate	Very Undesirable	<ul style="list-style-type: none"> -Restoring problematic tissues -Attention to maintain population balance in urban development programs -Creating diversity in the social fabric of the inhabitants -Creating employment through job creation potential to encourage residents to live in the context -To promote the historical and cultural identity in order to increase the sense of belonging inhabitants -Attention to the presence of all various social groups and the inclusiveness of space -Creating a willingness to residents for long-term presence in the tissues through the revitalization of the neighborhood center and creating employment for them to increase dynamism and social interactions
	Economic	Housing and land market	Very Undesirable	<ul style="list-style-type: none"> -Optimal use of land and spaces within the range -Formation of urban planning criteria taking into account land economics -Provide financial guidelines for the municipality of District 3 to reduce revenue through the sale of congestion and segregation -Balancing the placement tendencies of housing of low income groups through urban planning regulations -Balancing the economy and space between households and land uses
		Labor market and	Undesirable	<ul style="list-style-type: none"> -Creating new businesses by strengthening the tourism indexes

		employment		<ul style="list-style-type: none"> -Creating diverse activities in the context of the text -Creating artistic and handicraft activities and tourism in texture -Introducing resident products and creating pre-owned merchant shops around prominent elements such as traditional restaurants, etc.,
		Type of ownership of residents	Very Undesirable	<ul style="list-style-type: none"> -Adopting regulations on land regulation and increase of ownership power to residents -Considering financial facilities such as low-interest loans to residents of the area -Considering various residential units based on the purchasing power of residents in urban development projects
	Physical	Supervising new construction	Undesirable	<ul style="list-style-type: none"> -Supervising the human system in new construction to prevent the underestimation of valuable buildings -Design of building materials legislation -Supervise and formulate solutions for population adjustment -Formulating rules and regulations and penalty in case of violation of residents and officials
		The quality of buildings	Very Undesirable	<ul style="list-style-type: none"> -Identifying and prioritizing the reconstruction and restoration of historical monuments and renovation of buildings -Use of architectural style and local native materials adapted to texture -Creating integration and coordination in building components within the context -Renovating and improving buildings according to the past and sense of belonging to the environment
		Quality of valuable and old buildings	Undesirable	<ul style="list-style-type: none"> -Flooring and lighting suitable for valuable and historic monuments such as Jame Mosque, Monar Ali, etc., -Renovating and rehabilitating of valuable buildings according to their past identity -Maintaining visual continuity in the wall and emphasizing the index element -Observing the proportions of elements of the identity of the sector and its coordination with adjacent buildings -The use of native materials in adjacent views of historic and valuable monuments to emphasize the indicator element -Improving the quality of existing bazaars and mosques

(Source: Authors)

Because this research is based on the renaissance approach and all factors are affected, if the strategies are used in the economic, social and physical criteria, all urban renewal options will be strengthened and they will be in a favorable condition. After reviewing the strategies, a plan has been developed to improve the quality of life in the area of Imam Ali Square and the strengths and weaknesses of the plan have been investigated. In this plan, improving neighborhood quality, easy access to services, and the creation of tourism routes have been given priority.

11.1. The suggested range of study

The worn-out texture is considered as the range, apart from the historical indexes and the new buildings. Therefore, in addition to paying attention to the indexes and historical elements, the quality of life of the residents must also be improved for comfortable textures. The proposed scheme rises from the consideration of suitable areas and the residents' comfort. In this research, meeting the daily needs of the residents in the center of the neighborhood is also considered. This project will lead to the enhancement of the quality of life in this area through easy access to services, the creation of tourism routes and the promotion of neighborhood identity. Fig 19 shows the suggested options in detail.

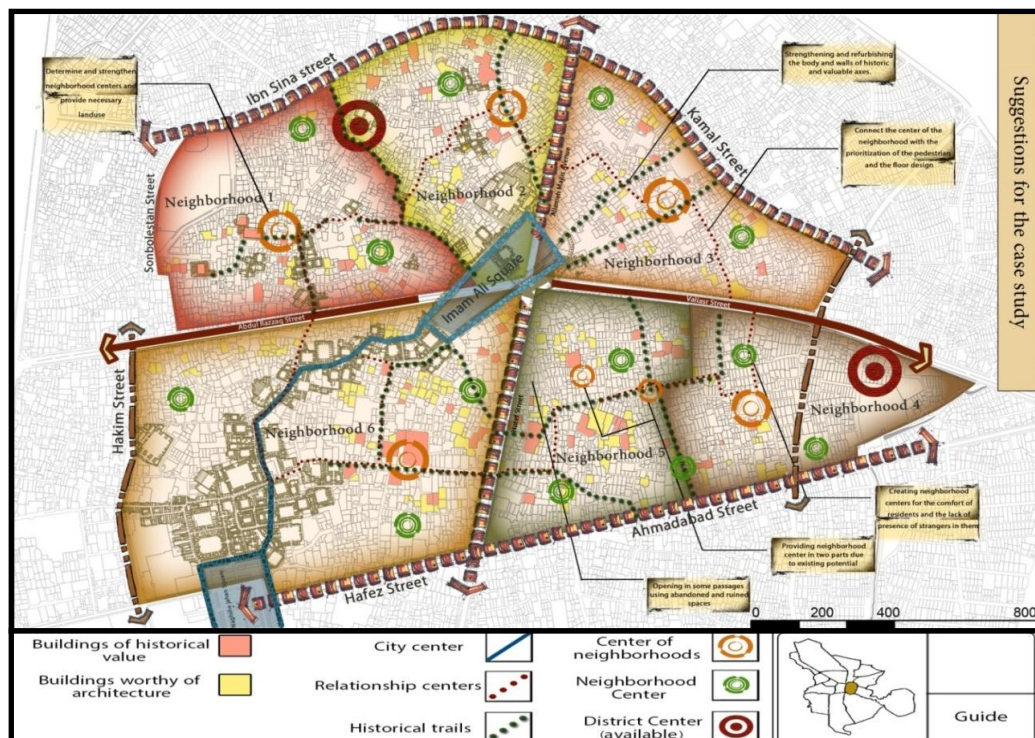


Fig 19 Suggested plan within the scope of the study

Table 12 Strengths and weaknesses of the suggestions within the study area

Weakness	Strength
<ul style="list-style-type: none"> Generate noise pollution at the neighborhood level Establishing the center of the district at the center of one of the neighborhoods and as a result of social disparity in servicing another neighborhood. 	<ul style="list-style-type: none"> There is a strong communication network Residents' visit to the main communication axes The association of this neighborhood with the old Square as the urban space New structure of historical orders in order to strengthen the identity of neighborhoods Increased security through increased infiltration and thus more crowding Consider the location of neighborhood centers in space with the potential The role of service and culture interacting with the role of tourism around neighborhoods

	<ul style="list-style-type: none"> ▪ Considering the vitality of the centers of the district center communication through the pedestrian walkway of neighboring to neighborhoods ▪ Pay attention to the whole range of pedestrians ▪ The presence of centers of neighboring and extravagant neighborhoods for the comfort of residents ▪ Contact neighborhoods
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(Source: Authors)

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