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# Effective Indicators in Neighborhood Selection by the Isfahan Citizens in the Historical Texture

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## ABSTRACT

Neighborhood, as an important behavioral setting, in addition to numerous social, cultural and physical aspects, has a very important role in neighborhood selection and creating a tendency among citizens to take up permanent residence. This is one of the main issues in the social life of historical contexts because by increasing the extent and depth of understanding of neighborhood selection criteria, housing will also be more durable. The present study aims to achieve effective factors in choosing the neighborhood in Isfahan city and to identify the criteria for neighborhood selection in the historical texture of Isfahan City. To this end, two main questions are raised: 1. What are the criteria for neighborhood selection in the historical texture of Isfahan? 2. Do the neighborhood selection criteria change with the spatial displacement? The present study is qualitative, descriptive and analytical research. To investigate the topic research, three Darb-e-Emam, Aligholi Agha and Jolfa neighborhoods in the historical texture of Isfahan City are selected using Goeller Scorecard and the four main neighborhood selection criteria, including security, neighborhood compatibility, access to shopping center and access to public transport network, are investigated. To investigate the aforementioned criteria in the selected neighborhoods, a sample of 90 persons are surveyed through a Likert scale questionnaire. Then, the data obtained from the questionnaires are analyzed using the AHP method and for each neighborhood, the importance coefficients of all criteria are calculated. The results of analysis show that according to the residents, among the neighborhood selection criteria, the security has the highest rating, followed by the neighborhood compatibility, access to shopping center and access to public transport network, respectively. Considering these criteria, the Aligholi Agha neighborhood obtains the highest ratings.

**Keywords:** Neighborhood Selection, Historical Texture, Qualitative Factors, Analytic Hierarchy Process.

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## 1. INTRODUCTION

After home, the neighborhood is the first place where a person attends; an individual establishes social ties with it and, it merges with human identity over time. As a result, it affects him and it is influenced by him. The study of this rich structure is one of the most important topics in the field of social and behavioral studies. Considering the important role of the neighborhood in cultivating the individual and social personality of residents, comprehensive research has been carried out in this area. However the issue of neighborhood selection from the perspective of residents is of topics has less considered, and the indicators and criteria of habitation have often been evaluated by experts and planners. The study of how to meet the criteria of habitation from the perspective of residents and also the contexts required for its realization can help the improvement of the dimensions of social sustainability at the local and urban scales and provision of the ground for deeper social interactions.

The analysis of the system of historical neighborhoods shows that in the typology of citizens' residence, there are two main spectra: 1. The first group includes those who, during an inherited system, have no right to choose their places of residence, and living in the father's house is necessarily considered the reason for living in the historical texture; 2. The second group includes those who choose to live in the historical texture to their liking and settle there. The latter type of habitation is formed based on the capabilities of the environment and with a value choice and citizens are attracted to a place according to their expectations of where they live and in other words, residential engineering dominates it. Achieving the value characteristics of residence and the criteria for the selection of it is the most important purpose of this research because it guarantees the continuity of life in the neighborhood system, and an appropriate planning is performed to practically realize the components, one can expect the real citizen attendance in the historical texture. The present research seeks to answer the following questions: 1. what are the criteria the second group has considered to live in the historic neighborhood; and 2. Do the neighborhood selection criteria change with the spatial displacement? Therefore, the concept of place, that evokes the continuity of living in historical neighborhoods, is the core of the present research. If the criteria are identified successfully, the ground for the local sustainable residence will be provided.

## 2. LITERATURE REVIEW

The neighborhood, as a ground for the formation and retrieval of collective identity, include a range of social groups and responding to their physical needs is not its only task; Rather, it is a meaningful identity that, due to the type of relationships formed within it, its validity is defined depending its inhabitants. Accordingly, recognition of it is considered as the basis for the recognition of the city in order to systematically manage it (Bastanirad, 2012, p. 2). In a sustainable neighborhood, meeting a wide range of needs is a requisite for collective life and an important condition for improving the quality of residence. It is not unreasonable that Kant considers space as the basis and reference for human and distinct understanding of matter (Norberg-Schulz, 1998, p. 8). Rappaport considers the cultural and social approach as the dominant approach to place and does not know buildings as the product of mere geographical factors. Moreover, according to him, socio-economic ideas, values and beliefs and cultural variables are important factors in the formation of place (Rappaport, 2005, p. 285).

The connection between an individual and a place in such a way that he considers himself a part of that place, and imagines a role of it in mind based on his experiences of signs, meanings and functions, is an important factor in forming a desirable neighborhood. Collective memory, localization, being member of the local community, being influential in the neighborhood, satisfaction with the neighborhood and privacy of the space play a key role in the formation of a favorable neighborhood (GhaediTalkhonche & Danaeinia, 2016, p. 5).

However, whether the neighborhood is considered a self-sufficiency unit (Howard Garden City Theory in 1957) or the parents of a family and a way to improve the citizen' quality of life (Mumford, 1954) or according to Turner and Fichter (1970), it validity of the neighborhood is promoted as a platform for establishing relationships with others, the neighborhood is a manner of identification and meaning of the place. Extensive and diverse studies on the concept of "neighborhood" indicate the high importance of this topic. However, recognizing the qualitative dimensions of location from the perspective of residents (with the aim of participatory neighborhood development) to achieve the qualities and characteristics of a desirable place of residence, is an important issue that emphasizes the community-basedness as a pillar of collective life while examining the criteria for neighborhood selection from the residents' perspective.

### 2.1. What is a Neighborhood?

Quality of life[1] is a broad concept with different meanings for different individuals and groups and like other social concepts, it has conceptual values. By knowing it, in addition to mastering its concept, one can understand the differences and similarities between it and other concepts. The main framework of quality of life is formed by social, economic, physical and personal indicators. However, the indicators of health and environmental quality are also of great importance in the quality of life studies (Fryback, Palta, Cherepanov, Bolt, & Kim, 2010, p. 2). The relationship between an individual and the environment is one

of the important factors effective in evaluating the quality of life so that personal characteristics such as age, socio-economic status and different methods of adaptation, environmental characteristics such as values in the environment or its value capacity, measurability and specific characteristics of the environment and those characteristics resulting from the mutual effects an individual and the environment have on each other lead to a kind of motivating interaction between an individual and the environment (Poll, 2000, p. 15). One of the factors affecting this is the place of residence. In the Holy Quran, the residence is mentioned as a value concept and a divine blessing (Quran, Nahl, p. 80). Avicenna (Ibn Sina), in his book entitled " The Canon of Medicine", said that the temperament of the place is influenced by factors such as the amount and method of using the sun and the moon, the type of soil and plants, animals and the type of climate, and considered their roles in choosing the place of residence (Avicenna,1023). Nasir al-Din al-Tusi considered the following factors effective in choosing the place of residence: a strong foundation (against natural disasters), provision of light, having a cool breeze and good weather, avoidance of arrogance, avoidance of proximity to evil people, avoidance of applying usurped land and respecting neighbors (GoliZavarehGhomshee, 2004, p. 40).

In abovementioned definitions, the neighborhood is referred as a resident and concentrated community in a small area or place within a larger place such as a city; the neighborhood is a relatively large part of the city that various points in it have the same characteristics and the observer can practically enter it. The appearance of a neighborhood can always be recognized from its interior, and sometimes it may be recognized from the outside when an observer passes by or walks towards it (Lynch, 1918). The neighborhood consists of an urban block that in people's mental image, its physical and social environment has clear and definable borders and boundaries (Heydari, Motaleb, & Moradian, 2018, p. 3). From the perspective of urban planning, the neighborhood can be defined as a recognizable part of the urban area or an area composed of the combination of various uses meeting the needs of residents (HajiAliAkbari, 2017, p. 4). In Chandigarh, the neighborhood is defined as the place of everyday life. Ganz describes the neighborhood as an urban village. The words "neighborhood" and "local community" are often used interchangeably in English; a local community is a network of interpersonal relationships and an individual's relationship with a group. In Oxford dictionary, local community is defined as a group of people who live in a common place, area, or region, and common characteristics such as religion, occupation, race, ethnicity, and so on, unite them (Abdolahi, Tavakolinia, & Sarrafi, 2010, p. 88). Poursrajian considers a historical neighborhood as a place composed of buildings, connecting passages, people, and economic systems with physical, economic, social, and cultural connections and its totality and some components has historical value (Pourserajian, 2015, p. 41). Some have interpreted the neighborhood as the viability of an area, some as a measure of attractiveness and some as public welfare, social well-being, happiness and satisfaction (Epley & Menon, 2008, p. 281). In explaining the characteristics of neighborhood selection and those criteria affecting the mental image of the neighborhood, as Lynch has stated, the neighborhood is referred as a set of factors that lead to the selection of a place for living and differentiate it from other urban areas, such as sense of belonging to a place in an area or imaginations and mental schemas of that area that the components of proportion, accessibility, supervision and authority, efficiency, vitality, meaning, and justice play a very important role in its formation (Zamanzadehdarban, 2017, p. 80).

Urban spaces are formed based on a structural logic and interfering in the space syntax changes their spatial structure and the structural changes of the city will result in functional and behavioral changes. The most important element created to meet the residents' needs in the neighborhood is the neighborhood centers, which were often established next to the main road of the neighborhood and in a way that they were well accessed from different parts of the neighborhood (Hosseini & Soltani, 2018, p. 19). Schultz knows memory as a requisite for the use of place in the true sense. According to him, after arriving a place, man experiences its environmental qualities, and the unity of that place-identity is revealed to him (Schulz, 1998, p. 52). He considers the transformation of "location" into "place", that is realizing the potential content of environment, as the main property of architecture (Partovi, 2008, p. 74). Thus, place identity becomes a part of personal identity that grows as a result of direct experience of the physical environment and plays a key role in the richness of individual personality (Saraei, Bahrami, & Mohrehkesh. 2012, p. 20). According to Mumford, citizens' dependence on their place of residence is caused by a social drama and he points out how an urban dweller hesitates to leave despite the unsuitability of his place of residence. He considers this reaction as individuals' instinct of being in the right and knows these inconsistencies and conflicts in their living environment as the most important factors causing an individual's dependence on their living place. Therefore, the "adjacency" of some people does not mean their belonging to their place and "neighborhood". This important feature differentiates the concept of living in a historical place and the strong tendency to stay in it even in critical situations. Table 1 shows the characteristics of a neighborhood from the perspective of theorists.

**Table 1. Characteristics of a Neighborhood from the Perspective of Theorists**

| Theorist | Explanation of the Concept of Neighborhood |
|---|---|
| Wright and Stein (1928) | The distinction between the external and internal appearance of the neighborhood, common features of neighborhood components |
| Cooley | Emphasis on the role of primary groups |
| Perry (1939) | Easy access to public services required by families (school, retails and leisure facilities) |
| Howard (1957) | Existence of sufficient green spaces, specified boundaries of the neighborhood, pedestrian access to daily services, less use of motor vehicles |
| Lynch (1960) | The distinction between the external and internal appearance of the neighborhood, common features of neighborhood components |
| Weber (1964) | Existence of common relations between residents |
| Turner & Fichter (1970) | A ground for communication |
| Schultz (1979) | Meaning of place by residents through the distinction between external and internal areas, borders and territory of place (confinement and centrality) |
| Downs (1981) | The neighborhood is what the residents call the neighborhood |
| Karpat (1985) | A Physical and social unit including social organizations larger than the family and smaller than the city<br>An area of the city and a factor of peace of mind |
| Michel (1989) | Part of the city that is specified by borders.<br>Various types of residential units with a commercial center in its center |
| Rapoport (1997) | A tool for retrieving the identity of citizens |
| Barton (2003) | Part of the space organization of the city with face-to-face interactions |
| Graph (2005) | Part of the city with identified functional or spatial edges and a combination of small-scale functions |
| Allen (2007) | Place invested by residents |

(Authors Based on Ghorashi, Azkia, & Mahdavi, 2015; Hanachee & Rezaei, 2015)

By looking at different definitions, it is found that in most definitions, the presence of mutual relations and social networks between them, common values and interests and being located in a neighborhood with specific geographical boundaries can be considered as the main characteristics of a neighborhood (Hajipour, 2006, p. 40).

## 2.2. The Neighborhood, Citizen and Neighborhood Selection Criteria

In plain words, a neighborhood consists of adjacent houses in complete geographical space. Families consider their neighborhoods as their homes and when entering their neighborhoods they find themselves in a familiar environment (Gharaee, Radjahanbani, & Rashidpour, 2010, p. 20). Therefore, the neighborhood is defined with the concepts of sense of belonging, sense of authenticity, religious identity, sense of security, trust, social relations, mental imagery, and norm-breaking, which can be classified into three main groups: identification, social capital and subject matter (Ghorashi, Azkia, & Mahdavi, 2015, p. 230). Since in order to select the place of residence, it is necessary to determine the directions of future development in the region, eliminate unsuitable areas for the creation of livable complexes, consider existing settlements and industries, investigate traffic, sociological, environmental psychological, geographical, meteorological and biological issues and study the application of GIS systems with the aim of determining the best points for settlements (MirRiahi, 2009, p. 159), it can be acknowledged that the following criteria will be effective in choosing the place of residence:

1. Socio-cultural criterion; referring to the indicators of having suitable spaces for social activities and for children to play, proximity to the central and public spaces of the city, security, and tranquility of the neighborhood, compatible neighborhood complexes (socially).

2. Environmental-physical criterion; referring to the indicators of having required space for crisis and necessity management, the existence of suitable space to provide green space, suitable surrounding landscape, the existence of suitable space for parking.

3. Service criterion; referring to the indicators of access to essential and major shopping centers, access to educational and cultural centers, access to the street, and the car path.

4. Finally, the economic-legal criterion: referring to the indicators of affordability of land and housing, and the legal conditions of land (Arasteh & Azizi, 2013, p. 340).

Bagherzadeh et al. (2013) consider two general (compatibility, efficiency, safety and, comfort) and specific (settlement conditions and the population covered) criteria for choosing the place of residence and believe that if these criteria are not fully met,

the housing environment will not be favorable. Akhavanabdollahian et al. (2017) also consider compatibility, comfort, efficiency, desirability, health, and safety standards as the most important physical-spatial indicators effective in location. Mofidi Shemirani and Moztarzadeh (2014), in their study entitled "Explaining the Sustainable Urban Community Structural Criteria", discussed physical, socio-cultural, transportation and communication, level of service, economy, proper management, attention to environmental sensitivities and human criteria as the criteria for sustainable neighborhood structure. In addition, economic, social, and environmental factors, that reflect the basic trends in the environment, social systems, economy, human well-being, and quality of life, can be mentioned as neighborhood selection criteria (Alanbari & Alisawy, 2014, p. 983). Since the behavior models of land use are based on the correct understanding of the selection of place of residence, one can mention to other criteria such as access to job opportunities, access to educational places used by children, housing prices, commute time, as well as secondary cultural and educational factors, lifestyle, access to workplaces, services, and service spaces (Guo & Bhat, 2006). Access to public transport system (HongKim, Francesca, & Preston, 2005), transportation policy (Pagliara, Preston, & Simmonds, 2010) and access to employment, highways, shopping centers, bus and other services (Smersh, Smith, & Schwartz, 2003), have also been mentioned as components effective in neighborhood selection.

Howard has identified features such as green space, neighborhood boundaries, access to everyday services, and less use of motor vehicles as neighborhood characteristics. Given the importance Cooley considers for the primary groups, he sociologically emphasizes the role of them in the neighborhood. According to Perry (1939), easy access to public services needed by families is an important indicator in the neighborhood. Rappaport (1997) knows the neighborhood as a tool for retrieving citizens' identities, and Allen (2007) considers it as a place invested by residents. The approaches obtained from the proposed opinions show that the four criteria of security, access to shopping centers, neighborhood compatibility, and access to public transport networks are among the most important factors effective in neighborhood selection.

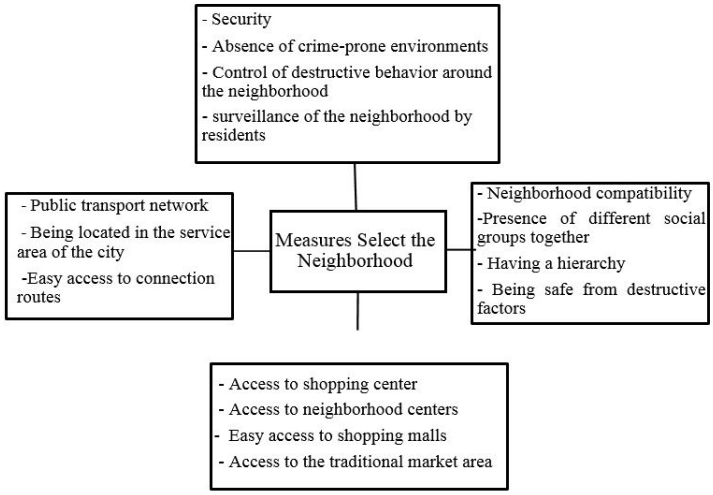



**Fig. 1. Conceptual Model of Neighborhood Selection Criteria and Indicators**

## 3. ARCHITECTURAL STRUCTURE OF THE STUDIED NEIGHBORHOODS

Residing based on interaction and adherence to collective life patterns is the most important feature of life stability in historical neighborhoods. In the neighborhoods of Jolfa (Safavid), Darb-e-Imam, and Aliqholi-Agha (Qajar), there are some patterns of residence, so studying them and the approaches obtained from it can provide the ground for forming sustainability in the architecture of neighborhoods.

**Table 2. Descriptive Characteristics of the Three Neighborhoods**

| Neighborhood | Historical Period | Neighborhood Character |
|---|---|---|
| Jolfa | Safavid | Historical; Influenced by Safavid architecture |
| Aliqholi-Agha | Qajar | Traditional-historical; Influenced by the historical monuments of the bath, mosque, and bazaar |
| Darb-e-Imam | Qajar | Religious; Influenced by Imamzadeh Darb Imam |

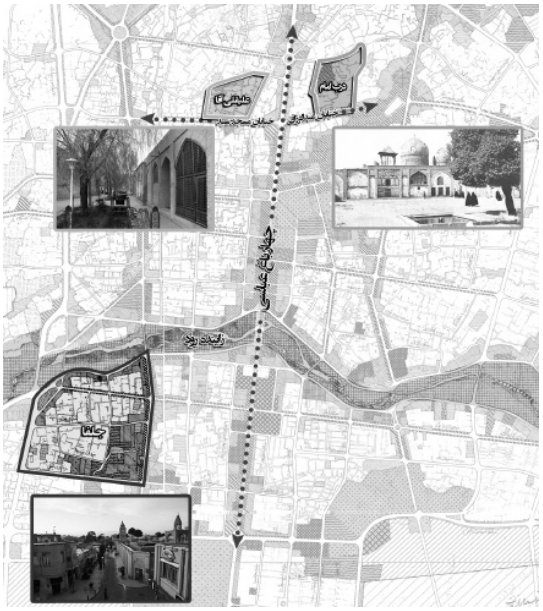


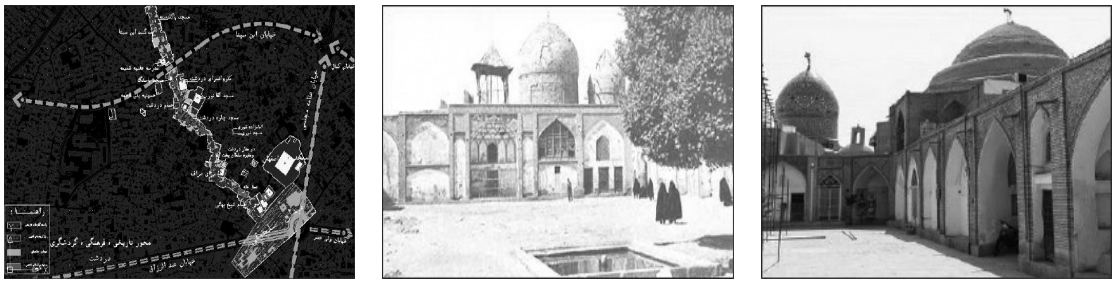
**Fig. 2. Location of the Studied Areas**

## 4. RESEARCH METHODOLOGY

The present study is quantitative-qualitative research which was carried out using library study and field study. Using the library study, first, important criteria for neighborhood selection were identified and among which four criteria of high importance were selected. To weigh the criteria, determine their priorities and degree of importance, a single-item worksheet was designed. In the field study section, the respondents were asked to score each of the four criteria from 1 to 10, and thus the criteria were classified on a 10-degree range. To investigate the effective factors in selecting a residential neighborhood in historical textures, while considering the distribution of samples in the city and their social, economic and geographical locations, the sample size was estimated by Goeller method (screening of more suitable options among many options). To select the neighborhoods, the antiquity and originality of them in terms of both body and buildings and local structure, have been considered and the neighborhoods have been selected from the Seljuk, Safavid and Qajar neighborhoods of Isfahan based on their historical backgrounds and cluster classification. To observe the balance between the three neighborhoods (Darb Imam (A), Aliqholi Agha (B) and Jolfa (C)[2], 90 people (30 people from each neighborhood) were considered as the respondent population and the data were analyzed using AHP[3] method.

**Jolfa Neighborhood,** which dates back to the Safavid era, is the residence of Armenians who settled in this area about three hundred years ago. Although, the current neighborhood lacks the integrity and originality of the past, the coexistence of people of any Christianity type has had a direct impact on this neighborhood.

**Aliqholi-Agha Neighborhood** is one of the original neighborhoods of Isfahan and a subset of Bid Abad neighborhood. It dates back to the Qajar period. The existence of a unique collection including a mosque, bath, and Ab anbar (water reservoir) has added to its originality.



**Darb-e-Imam neighborhood** is located in Sanbolistan neighborhood and is one of the valuable neighborhoods of Isfahan. The neighborhood dates back to the Seljuk era and its social structure still has the past cohesion.

**Fig. 3. Landscapes of the Studied Neighborhoods and Their Locations in the City**
(Authors Based on Renovation and Improvement Organization, Isfahan 2019)

## 5. DATA ANALYSIS

Data analysis or data mining refers to the process of evaluating data using statistical and analytical tools. It is applied to determine useful information and help make decisions about a particular issue. Accordingly, considering the historical background and authenticity of the neighborhoods, the four criteria of access to public transport network, access to shopping center, neighborhood compatibility and security have been studied, and compared with each other.

### 5.1. Factors Affecting Neighborhood Selection Based on AHP Method

The hierarchical analysis process is a flexible, robust, and straightforward method that is used to make decisions under conditions in which contradictory decision criteria make it difficult to choose between options. Due to its simplicity, flexibility, simultaneous application of quantitative and qualitative criteria, as well as its ability to examine the consistency of judgments, this method can be applied in the study of issues related to urban and regional planning.

Converting the studied subject or problem into a hierarchical structure is the most important part of the hierarchical analysis process; thus, by analyzing complex problems, the hierarchical process transforms them into a simple form that can be perceived by the human mind. In the present study , in the first step, the hierarchical structure of the four criteria of security, neighborhood compatibility, access to shopping center, and access to public transport network, which have been determined based on the previous studies, has been determined using the AHP method (Fig. 4).

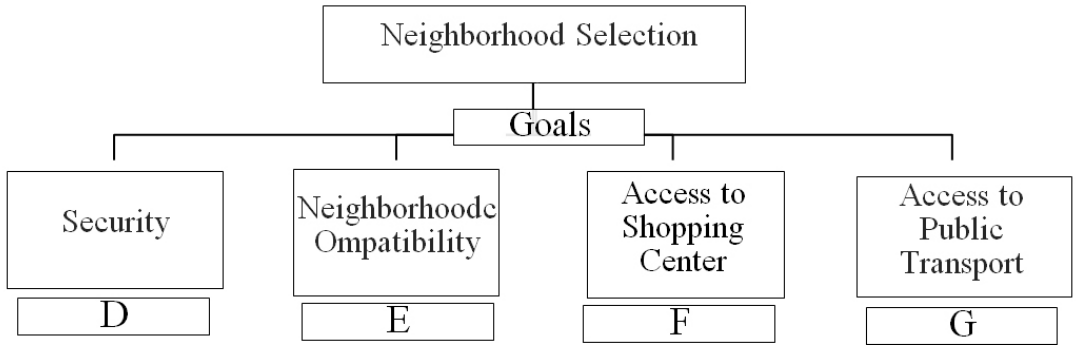



**Fig. 4. Residential Neighborhood Selection Hierarchy**

In the second step, to determine the importance coefficient of each criterion, i.e. the degree of the superiority of each criterion over the other criteria, they are compared in pairs. These comparisons are recorded in a n×n matrix (in this case 4×4).

According to Table 3, the degree of the superiority of criterion I over j is determined. all of the entries of this matrix are positive and according to the principle of inverse conditions in the hierarchical analysis process (if the importance of I relative to j is equal to k, the importance of j relative to I will be equal to 1/k), two values of a and 1/a will be obtained. For example, according to the pairwise comparison matrix of the criteria, the degree of the superiority of security criterion (D) over neighborhood compatibility criterion (E) was estimated 3, according to Table 3, criterion D was slightly more important than criterion E. So, according to the inverse condition, the superiority of criterion E over criterion D will be 1/3. Since 4 criteria have been examined in this study, 6 judgments should be made.

**Table 3. 9-Quantity Scale for Pairwise Comparison of Criteria**

| Score | Definition | Explanation |
|---|---|---|
| 1 | Equally Important | In achieving the goal, the two criteria are equally important. |
| 3 | Slightly More Important | Experience shows that I is a little more important than j in achieving the goal. |
| 5 | More Important | Experience shows that I is more important than J in achieving the goal. |
| 7 | Much More Important | Experience shows that I is much more important than j in achieving the goal. |
| 9 | Quite More Important | It is proven I is quite more important than j. |

$$\begin{array}{c} \\ D \\ E \\ F \\ G \end{array} \begin{array}{c} \begin{array}{cccc} D & E & F & G \end{array} \\ \begin{bmatrix} 1 & 3 & 7 & 5 \\ \frac{1}{3} & 1 & 5 & 3 \\ \frac{1}{7} & \frac{1}{5} & 1 & \frac{1}{3} \\ \frac{1}{5} & \frac{1}{3} & 3 & 1 \end{bmatrix} \end{array}$$

(Zebardast, 2002, p. 3)

To determine the importance coefficient of the criteria, various methods such as row sum, column sum, arithmetic mean, and geometric mean method can be applied. In the present study, due to its more accuracy, the geometric mean method was used. In this method, the geometric mean of each row is calculated and then, normalized. As it is clear, the sum of the importance coefficients of the four criteria is equal to one and indicates the relative importance of the criteria. The importance coefficients of the criteria are shown in Figure 4.

**Table 4. The Importance Coefficients of the Criteria According to Figure 4**

| | |
|---|---|
| **Security ($W_D$=0.56)** | **Access to Shopping Center ($W_F$= 0.07)** |
| **Neighborhood Compatibility ($W_E$= 0.26)** | **Access to Public Transport Network ($W_G$= 0.11)** |

To determine the importance coefficient of in each neighborhood, the preference of each of them the criteria was judged in comparison with other criteria. The judgment is based on the 9-quality scale (3×3 matrix); the difference is that in comparing the neighborhoods in terms of the criteria, It is not a question of which option is more important; Rather, it is discussed that which option is preferable and how much.. For example, in neighborhood A, which criterion is more important and how much? Using the Likert scale or the sum of scores in the field research process, in each neighborhood, the respondents' point of views on each of the criteria have been evaluated separately. This scale can, determine the preference of each criterion in each neighborhood compared to the other neighborhood, in addition to determining the total scores of the criteria in each neighborhood. Based on the obtained scores, it is possible to compare the respondents' opinions on the four criteria in all three neighborhoods (Table 4).

**Table 5. Results of the Likert Scale Table**

| | Criterion 1 (D) | Criterion 2 (E) | Criterion 3 (F) | Criterion 4 (G) |
|---|---|---|---|---|
| Neighborhood A | 0.46 | 0.84 | 0.66 | 0.88 |
| Neighborhood B | 0.80 | 0.94 | 0.96 | 0.100 |
| Neighborhood C | 0.54 | 0.64 | 0.76 | 0.66 |

$$\Rightarrow \begin{cases} \text{Criterion 1 } B > C > A \\ \text{Criterion 2 } B > A > C \\ \text{Criterion 3 } B > C > A \\ \text{Criterion 4 } B > A > C \end{cases}$$

## 6. DISCUSSION AND FINDINGS

Interpretation of data indicates that Aligholi Agha (B) neighborhood has obtained the highest score in all four criteria and the other two neighborhoods are in the next positions. The results of the importance coefficients of the criteria area pairwise comparison of each of the criteria in the three neighborhoods separately and are derived from the scores obtained from the Likert scale (Table 6).

**Table 6. 9-Quality Scale for Pairwise Comparison**

| Definition | Preference Score |
|---|---|
| Equally Preferable | 1 |
| Slightly Preferable | 3 |
| More Preferable | 5 |
| Much More Preferable | 7 |
| Quite Preferable | 9 |

**D:**

| | A | B | C |
|---|---|---|---|
| A | 1 | $\frac{1}{7}$ | $\frac{1}{3}$ |
| B | 7 | 1 | 5 |
| C | 3 | $\frac{1}{5}$ | 1 |

**E:**

| | A | B | C |
|---|---|---|---|
| A | 1 | $\frac{1}{3}$ | 5 |
| B | 3 | 1 | 7 |
| C | $\frac{1}{5}$ | $\frac{1}{7}$ | 1 |

**G:**

| | A | B | C |
|---|---|---|---|
| A | 1 | $\frac{1}{5}$ | 5 |
| B | 5 | 1 | 9 |
| C | $\frac{1}{5}$ | $\frac{1}{9}$ | 1 |

**F:**

| | A | B | C |
|---|---|---|---|
| A | 1 | $\frac{1}{7}$ | $\frac{1}{3}$ |
| B | 7 | 1 | 5 |
| C | 3 | $\frac{1}{5}$ | 1 |

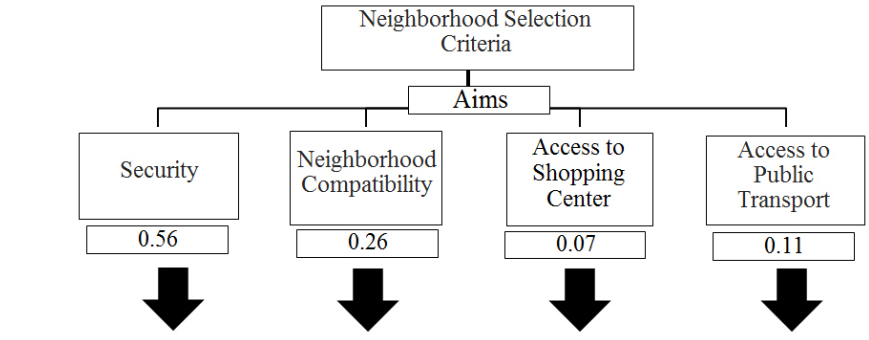
(Zebardast, 2002, p. 5)

According to the matrix of importance coefficients of the criteria and the importance of each criteria in the three selected neighborhoods, after normalization, the importance coefficients of the four criteria in each neighborhood are determined, as listed in Table 7.

**Table 7. Significance Coefficient of Each Criterion in Each Neighborhood**

| | | | |
|---|---|---|---|
| **Security (D)** | $W_A = 0.09$ | $W_B = 0.73$ | $W_C = 0.18$ |
| **Neighborhood Compatibility (E)** | $W_A = 0.29$ | $W_B = 0.69$ | $W_C = 0.02$ |
| **Access to Shopping Center (F)** | $W_A = 0.09$ | $W_B = 0.73$ | $W_C = 0.18$ |
| **Access to Public Transport Network (G)** | $W_A = 0.21$ | $W_B = 0.77$ | $W_C = 0.02$ |

After obtaining the importance coefficient of the criteria in each neighborhood, the final score of each of them is determined (Fig. 5), as shown in Table 7.




| | | | | |
|---|---|---|---|---|
| **A** | 0.09 | 0.29 | 0.09 | 0.21 |
| **B** | 0.73 | 0.69 | 0.73 | 0.77 |
| **C** | 0.18 | 0.02 | 0.18 | 0.02 |

**Fig. 5. Importance Coefficients of Each Criterion in Each Neighborhood**

According to the results of analyses, Aligholi Agha neighborhood (B) is the most suitable place for neighborhood selection, followed by Darb-e-Imam (A) and Jolfa (C) neighborhoods, respectively. It is noteworthy that with a significant difference, Aligholi Agha neighborhood is placed in a higher position than the other two neighborhoods. Also, in terms of ranking, the security criteria with an average score of 9.8 obtain the highest position according to respondents. The residents of Aligholi Agha neighborhood consider security to be the most important factor for residence. The results obtained from the Likert scale analysis also confirm this conclusion. The criteria of neighborhood compatibility, access to shopping center and access to public transport network are in the next ranks (Table 8).

**Table 8. Final Coefficient of the Criteria in the Studied Neighborhoods**

| Neighborhood | Security | Neighborhood Compatibility | Access to Shopping Center | Access to Public Transport Network | Final Score |
|---|---|---|---|---|---|
| A | 0.051 | 0.076 | 0.006 | 0.023 | 0.156 |
| B | 0.409 | 0.179 | 0.051 | 0.085 | 0.724 |
| C | 0.1 | 0.005 | 0.013 | 0.002 | 0.120 |

Findings show that Aligholi Agha neighborhood has the highest score due to its uniform texture, the dominant presence of indigenous people, and the high social affinities of the residents. This relative recognition has led to a kind of intangible social monitoring of the social relations between the residents, increasing the residents' satisfaction with the neighborhood. Such security is not observed in Darb-e-Imam and, especially in Jolfa neighborhoods due to the change in the face of the texture caused by the gradual migration of indigenous inhabitants and the presence of heterogeneous socio-cultural structures.

## 7. FUTURE RESEARCH

The present study has analyzed and prioritized the texture criteria for neighborhood selection from the perspective of residents. Undoubtedly, several factors are effective in determining neighborhood selection criteria. The cultural and social origins of the four criteria based on the registration and analysis of behavior settings is a complementary topic that can be examined in future research to provide a new perspective on the neighborhood selection principles and criteria.

## 8. CONCLUSION

Neighborhood as the oldest and most stable pattern of life in historic cities has always been considered and residents have played a crucial role in promoting it. Identifying the conditions for the continuation of residence from the residents' point of view will provide the grounds for the continuation of residence in historical textures, in addition to strengthening social life. The present study, while explaining the criteria for neighborhood selection by the citizens of Isfahan and weighing them, has examined the effectiveness of the criteria in the neighborhoods studied. Moreover, by answering the question "What are the criteria for neighborhood selection in the historical texture of Isfahan?", it was attempted to explain the four criteria of security, neighborhood compatibility, access to shopping center and access to public transport network according to experts' opinions and also to investigate the importance of them in the three Aligholi Agha, Darb Imam, and Jolfa neighborhoods using Goeller Scorecard and a Likert-scale questionnaire.

Studies show that the success of efforts to achieve local sustainability depend on quality improvement. In terms of valuation, in all three neighborhoods studied, the security criterion, as one of the basic requirements for enhancing the citizens' quality of life and providing the ground for residents' social communication and also, a prerequisite for having a healthy community, has been identified as the most important priority in neighborhood selection by citizens. This indicates that with increasing neighborhood security, the tendency to reside in the neighborhood will also increase. The compatible neighborhood compatibility and social alignment between neighborhoods, is another important factor that directly affect neighborhood selection by citizens. Access to shopping centers is another important factor effective in selecting neighborhood for residence by Isfahan citizens. Thus, the continued use of local markets can be considered as one of the most important components of eco sustainability and an important factor effective in maintaining the quality of residence in historical textures.

Moreover, the public transport network, as a social action between citizens, was one of the next important priorities for neighborhood selection by residents. To answer the second question, "Do neighborhood selection criteria change with spatial displacement?", an analysis was performed using AHP method and the results indicated that there is a significant relationship between the aforementioned criteria and according to their levels, the continuity of life and the stability of settlements vary and in proportion to the capacities of each neighborhood, the choice of criteria also changes. Therefore, considering each criterion alone and ignoring its relationships to the other criteria will reduce the residents' tendency to reside and decrease their retention in neighborhoods while considering the interactions between the four criteria aforementioned will lead to the increased stability and continuity of residence in neighborhoods.

## END NOTE

1. The origin of the concept of life dates back to the time of Aristotle in 385 BC. At that time, Aristotle considered "good life" or "living well" to mean happiness. For more information, see the following reference: Saharans, Nejat. (2008). Quality of life and its measurement, Iranian Journal of Epidemiology, (2)4, 57.
2. In this study, Darb-e-Imam neighborhood is shown with the letter A, Aligholi Agha neighborhood with B, Jolfa neighborhood with C, as well as the security criterion with D, neighborhood compatibility criterion with E, access to shopping center criterion with F and access to public transportation network criterion with G.
3. Analytical Hierarchy Process.

## REFERENCES


- Holy Quran
- Abdolahi, M., Tavakolinia, J., & Sarrafi, M. (2010). Theoretical Study of the Concept of Neighborhood and its Redefinition with Emphasis on the Conditions of Urban Neighborhoods of Iran. *Journal of Human Geography Research*, 2(72), 82-103. https://jhgr.ut.ac.ir
- Akhavanabdollahiyan, M.R., Taghvaei, M., & Varesi, H.R. (2017). Determining Vulnerable Applications and Criteria for Spatial Locating With Emphasis on Unnatural Crises with AHP Method (Case Study: Sabzevar). *Journal of Geographical Researches*, 32 (1), 121-136. http://georesearch.ir
- Alanbari, M., & Alisawy, A. (2014). Selecting Urban Sustainability indicators for Residential Neighborhoods in Iraqi city. Journal of Babylon University. *Engineering Sciences*, 4(22), 979-988. https://www.iasj.net
- Arasteh, M., & Azizi, M.M. (2013). Locating Sustainable Residential Complex in Central Zone of Yazd City Using the ANP Method. *Journal of Armanshahr Architecture & Urban Development*, 5(9), 333-347. http://www.armanshahrjournal.com
- Avicenna. (1023). The Canon of Medicine of Avicenna, (A. Sharfekandi, Trans.).
- Bagherzadeh, A., Mohammadi, Sh., & Shaghafi, Sh. (2013). An Analysis of Location of Residential Complex with Land Use Planning Approach: Case Study of Golshan Shabestar Residential Complex Design. International Conference on Civil, Architectural and Sustainable Urban Development at Tabriz Branch, Islamic Azad University, 1-14.
- Bastanirad, M. (2012). District in the Iranian Cities of Early Islamic Centuries. *Journal of Historical Researches*, 6(10), 1-30. http://ensani.ir
- Epley, D.R., & Menon, M. (2008). A Method of Assembling Cross-sectional Indicators into a Community Quality of Life. *Social Indicators Research*, 88(2). https://link.springer.com/article/10.1007/s11205-007-9190-7
- Fryback, D., Palta, M., Cherepanov, D., Bolt, D., & Kim, J.S. (2010). Comparison of Five Health-Related Quality-of-Life Indexes Using Item Response Theory Analysis, Medical Decision Making. *An International Journal of the Society for Medical Decision Making*, 30(1), 5–15. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2812696
- GhaediTalkhonche, A., & Danaeinia, A. (2016). Investigating the Factors Affecting the Decline in the Quality of Sustainability in Urban Spaces Case Study: Jolfa Square of Isfahan. International Congress of Civil, Architectural and Urban Development, Shahid Beheshti University, 1-16.
- Gharaee, F., RadJahanbani, N., & Rashidpour, N. (2010). Study of Sense of safety in Different Urban Areas, Case Study: A Comparison of Regions 2 and 11 of Tehran Municipality. *Journal of Armanshahr Architecture & Urban Development*, 3(4), 17-32. http://www.armanshahrjournal.com
- Ghorashi, S.M., Azkia, M., & Mahdavi, S.M. (2015). Sociological Redefinition of the Concept of Neighborhood from the Residents' Viewpoint: A Phenomenological Study of Kan Neighborhood in District 5 of Tehran. *Journal of Community Development (Rural and Urban Community)*, 2(7), 221-240. https://jrd.ut.ac.ir
- GoliZavarehGhomshee, Gh. (2004). Home and Housebuilding in the Realm of Morality and Virtue. *Journal of Pasdare-Eslam*, 273, 38-42. http://pasdareeslam.com
- Guo, J., & Bhat, Ch. (2006). Residential Location choice modeling: Accommodating Sociodemographic, School Quality and Accessibility Effects. Department of Civil Engineering, University of Texas at Austin, Austin.
- HajiAliAkbari, K. (2017). Definition of the Criteria and Indices of neighborhood Sustainability (With Emphasis on Functional Aspect) Case Study: Deteriorated Neighborhoods in Tehran. *Journal of BAGH-E NAZAR*, 14(51), 45-60. http://www.bagh-sj.com
- Hajipour, Kh. (2006). Community Based Planning an Efficient Approach for Sustainable Urban Management. *Journal of HONAR-HA-YE-ZIBA*, 26(1), 37-46. https://jfaup.ut.ac.ir
- Hanachee, P., & Rezaei, N. (2015). Studying the Factors Affecting the Habitation Methods in the Neighborhoods: Example of Oudlajan Neighborhood in Tehran. *Journal of HONAR-HA-YE-ZIBA Memari-Va-Shahrsazi*, 20(1), 31-40. https://jfaup.ut.ac.ir
- Heydari, A., Motalebi, Gh., & Moradian, S. (2018). Investigation of Place Attachment to Three Scales of Home, Neighborhood and City, (Case Study: Shiraz City). *Journal of HONAR-HA-YE-ZIBA*, 23(3), 95-106. https://jfaup.ut.ac.ir
- HongKim, J., Francesca, P., & Preston, J. (2005). The Intention to move and Residential choice Behaviour. *Journal of Urban Studies*, 9, 21-36. https://journals.sagepub.com
- Hosseini, S.F., & Soltani, M. (2018). A Comparative Investigation and Analysis between the Neighborhood Concept in the Traditional Urban System in Iran and Its Similar Patterns in Contemporary Period. *Journal of BAGH-E NAZAR*, 15(60), 15-28. http://www.bagh-sj.com
- Isfahan Municipality, Renovation and Improvement Organization, Deputy of Civil Engineering.

- Lynch, K. (1918). The Image of the City. (M. Mozayeni, Trans.). Tehran: University of Tehran Publication.
- MirRiahi, S. (2009). A Methodology for the Placement of Land Use in the Environment. *Journal of Environmental Sciences*, 6(2), 155-166. http://envs.sbu.ac.ir
- Mofidishemirani, S.M., & Moztarzadeh, H. (2014). Explaining the Sustainable Urban Community Structural Criteria. *Journal of BAGH-E NAZAR*, 11(29), 59-70. http://www.bagh-sj.com
- Norberg-Schulz, C. (1998). Architecture: Presence, Language, and Location, (A.R. Seyyed Hamedian, Trans.). Tehran, Nillofar Publication.
- Pagliara, F., Preston, J., & Simmonds, D. (2010). Residential Location Choice. University of Naples Federico Department of Transportation Engineering.
- Partovi, P. (2008). Phenomenology of Place. Farhangestan-e-Honar. Tehran.
- Poll, R. (2000). Perceived Urban Environmental Quality. The 2nd International Conference on Quality of Life in Cities, Singapore, 441-452.
- Pourserajian, M. (2015). Values of Historical Neighborhood and Criteria of Change According to Residents. *Journal of BAGH-E NAZAR*, 12(35), 39-52. http://www.bagh-sj.com
- Rapoport, A. (2005). The Meaning of The Built Environment: A Nonverbal Communication, First Publish, Tehran, Processing and Urban Planning Company Publications.
- Saraei, M.H., Bahrami, F., & Mohrehkesh, SH. (2012). The Identity Components for Historic Quarter of City Surrounding Context of Jame Mosque of Isfahan. *Journal of Studies on Iranian Islamic City*, 2(8), 27-36. http://iic.icas.ir
- Smersh, G., Smith, M., & Schwartz, A. (2003). Factors Affecting Residential Property Development Patterns. *Journal of Real Estate Research*, 25(1) 61-76. https://aresjournals.org
- ZamanzadehDarban, Z. (2017). The Typology of Factors Influencing Identity and Sense of Place in the Evolution of Neighborhood Theory with Meta-Analysis Approach. *Journal of Urban and Rural Management*, 48(16), 65-86. http://ijurm.imo.org.ir
- Zebardast, E. (2002). Application of Analytical Hierarchy Process in Urban and Regional Planning. *Journal of HONAR-HA-YE-ZIBA*, 10(0), 13-21. https://jfaup.ut.ac.ir

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