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Towards Determining the Priorities in Areas of Physical Intervention Through Identification of Environmental Qualities in Urban Informal Fabrics

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ABSTRACT

Space quality in an urban area is resulted from the components which through recognizing the effects of each, solutions to improve the overall quality of urban context can be provided widely. This is even more significant in the case of informal urban fabrics where many urban spaces and individual settlements that are facing lack of environmental qualities causes the death of life in the context overtime. It means paying attention to environmental qualities in informal spaces will be one of the most vital factors in identifying areas of physical intervention to improve the quality of life. Since now, little attention has been paid to identifying effective quality indicators and areas of intervention in informal fabrics in Iran. For this reason, the current study tries to take the first steps and move forward by studying the outlines of issues related to environmental qualities and explaining how they affect the indicators of intervention in informal spaces. It will be assumed that the sustainable place model of Canter which is introduced as three main categories of functional, experimental-aesthetic and environmental indicators can be used as an effective model in defining qualitative indicators and areas of physical intervention in informal fabrics. Thus, in order to identify and prioritize areas of intervention in these urban spaces as the aim of this study, each of the index of sustainable model presents a group of sub indicators through Literature, Fuzzy Delphi Method and questionnaire survey that is conducted in peripheral informal settlements of Mashhad Metropolitan in terms of effective environmental quality components. Through weighing the criteria and sub criteria by AHP Technique, areas of physical urban intervention are recognized so that appropriate types of intervention could be suggested according to the kind of problematic urban spaces.

***Keywords**: Urban Informal Fabrics, Environmental Quality Components, Areas of Physical Intervention*

1. INTRODUCTION

The scale of urbanization indicates that urban spaces are facing global issues and serious consequences [7]. In fact, urbanization is a kind of two-dimensional phenomenon which provides a variety of facilities for citizens, but on the other hand, it causes a lot of problems such as overcrowding, pollution, limitations, and the lack of environmental and economic quality [16]. In other words, one of the most problematic issues which cities are facing is the growth of population and migration and also the formation of delicate

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areas in the form of informal fabrics that is more highlighted in the developing countries such as Iran [22]. Informality as a threat is supposed to be meant vulnerability, weakness, inefficiency, uncontrolled, illegal and many other relevant characteristics in the function, body and appearance of an object or phenomena that may cause problems in itself and in peripheral areas as well.

Under these circumstances, dividing urban areas into surroundings and centers causes a huge difference between the quality, lifestyle and housing standards in the main context of cities and marginal areas as informal urban spaces. Quality is one of the significant concepts of knowledge and profession in architecture and urbanism which is of great theoretical and practical importance [3]. Apart from the theoretical dimension of quality due to the quality crisis that most urban environments are currently facing, the need to study quality in urban quarters in order to identify the level of desirability of spaces is quite evident [5]. Among these, paying attention to the quality of informal urban fabrics is one of the most basic strategies for studying and identifying the living space in which the urban quarters are evaluated to determine the priorities of urban intervention to enhance quality [10]. Thus, in order to recognize informal fabrics, measuring the quality of life towards intervening in a timely manner about priorities for areas of urban intervention, criteria and indicators of environmental qualities are needed to be applied in the evaluation of the mentioned urban spaces.

Many studies have been carried out on the relevant issues of informal settlements up to now, but none of them could provide a clear solution or most of the practical plans have failed due to the high costs of implementation or ignoring the residents during the process of development and also because the identification and prioritization of areas of intervention in these contexts is done only with respect to quantitative indicators which shows that relationship between urban contexts components including activities, needs, communications and quality indicators are not considered at all [13]. Therefore, in line with identifying residential areas of informal settlements in cities and also accepting the spaces and the residents as the citizens as well as the inevitability of urban development, the present study has aimed to provide an approach to define the effective criteria in informal fabrics and also to prioritize the areas of physical intervention through examining qualitative indicators.

2.Literature Review

Informal fabrics and in the following, informal settlements are inexpensive solutions to own houses for people with low incomes who have been deprived of the urban housing funding [19]. The World Bank regards these settings as the neglected areas which are suffering from the lack of structural and environmental quality [24] and these areas are facing some issues including illogical paradoxes in land uses, being distant from urban areas, spatial limitations, social problems, and so on [20]. The impact of these areas on urban life is increasingly growing and neglecting such issues leads to future crises [9]. Until the early decade of 1970s in which liberal views used to prevail in the world, the government had the minimum intervention in the urban housing and it was believed that there was a hidden agenda of the housing market to keep the balance which led to the lack of attention and support for these areas to develop [23]. The residents of these settings live their lives at a low level due to infrastructural defects and poor urban services [18]. Establishing relationships between the residents and the created settings as the basis of the environmental elements and especially physical features in the space can serve as the indexes of creating the quality of space. In fact, quality is the feature of every entity or phenomenon which has the emotional and rational impact on human beings [17].

2.1. Qualitative Indexes

Quality is regarded as one of the crucial elements in assessing the suitability of urban environments. Quality is a feature that distinguishes a phenomenon from other ones and it can also be the result of the environment or the mental states of the observers within the environment [17]. This term does not have an old history in urban development literature. From the viewpoint of the current literature, all efforts which have been made to grasp the concept of stable urban areas or stable collective places were tied to the concept of quality. In other words, expressing qualitative criteria – from the viewpoint of the relevant specialists – is regarded as their mental ideal about urban spaces which can be an interpretation on the stability of these spaces as the key point of

achieving the purposes of urban development [12].

Following the mentioned purposes, Jane Jacobs, Kevin Lynch, Ian Bentley and Matthew Carmona are some theorists who have propounded different criteria and provided the possibility of measuring the environment with the mentioned qualitative factors. In addition to the qualitative parameters of the environment, some other theorists such as Jon Lang, Donald Appleyard and David Canter have propounded some models to classify the qualities and the latter as "sustainable place Model" was an internal model among them.

According to this model, the quality of the urban environment is regarded as the result of three components which feature the quadruple qualities including physical, action-oriented, perception-oriented and ecosystem-oriented qualities of the urban environment i.e., the three components "functional quality", "experimental-aesthetic quality" and "the environmental quality" are the major elements which form the general quality of the urban design of a place. In Table 1, these three components as three main indexes of the sustainable place model and their sub-indicators based on the opinions of different theorists are shown.

Table 1: The Quality Components of an Urban Space Based on Different Theorists

Target	Model	Sub Indicators
Environmental Qualities/ Areas of Physical Urban Intervention	**Functional**	Performance- Democracy-Eyes on the Street- Continues-Users and Activities-Timeless Principles- Larger Whole-Positive Urban Space-Construction- Fit-Access-Control-Legibility- Robustness- Permeability- Diversity-Publicness-Safety- Mixed Use- Compatibility- Democracy-Control, Monitor & Care-Compactness-Hierarchy- Mixed Using- -Long Lasting- Changeable-Security-Flexibility-Continuity- Street Activities- Performance-Efficiency- Attachment-Public Spaces- Accessible-Functional- Distinctive
	Experimental-Aesthetic	Attractive- Inclusive-Vital-Fulfilling-Enclosure-Phantasm- Appearance- Visual Characteristics-Comfort-Richness-Mixed Forms-Mental Image- Exciting Spaces-Livability- Emotional Wellbeing-Privacy-Social Wellbeing- Variety-Detail Design-Human Scale-Memorability-Distinction- People Friendly-Pedestrian Freedom- Adoptable- Visual Quality-Sittable Places- Originality & Meaning-Space Enclosure- Designed Buildings- Spontaneity- Personalization-Visual Appropriateness- Sense of Place- Piecemeal Growth-Visions- Formation of Centers- Contact- Artistic Principle- Justice-City View
	Environmental	Contextual Compatibility- Adequate Sun Light- Gardens -Vegetation- Clean Air- Natural Context- Greenery- Cleanliness-Unpolluted- Clean and Tidy

Indeed, the model of sustainable urban place is an example of investigating the different dimensions and aspects of the quality relating to the urban design within various spectra of the urban places through the development of the Canter's Place Model based on the correlation of the place [6]. The combination of the fourfold dimensions resulted in three components as functional quality, experimental aesthetic quality and environmental quality which can lead to the formation of some elements in the whole quality of urban development within various spectra of the urban places [11]. In fact, such elements can create the strongest interaction between the settings and residents. Moreover, each quality includes a category of qualities with the similar features and nature [6] and also each quality is the representative of an area of urban physical intervention. Apart from the theoretical importance of the case, due to the critical situations and qualities related to the most of urban spaces in Iran, the quality is practically a vital element in such spaces and it is especially more crucial to informal fabrics because these spaces have been lost many parts of qualitative components or have been eroded and destroyed by structural changes of the places and consequently caused significant decreases in the qualities of the surrounding areas. Therefore, efforts at reaching stable spaces in informal settings can be more purposeful by identifying and measuring the qualitative aspects of the spaces. Thus, in the process of carrying out the present study, it has been tried to propound qualitative components for informal urban contexts by identifying

major indexes in urban spaces through the Canter's Model.

2.1.1. Functional Quality in Informal Fabrics

"Functional Quality" component includes providing the possibility of moving and offering easy access to urban attractions to pedestrians and drivers; on the other hand, it includes allocating areas for potential different events such as recreational activities and places to gather for social ceremonies in order to guarantee the vitality of the urban spaces [14]. In fact, these qualities show positive and negative features of the space from the viewpoint of functional quality and the fact that how the space impacts on people and their activity and behavioral pattern which is very critical in informal settings [18]. Therefore, the effects of an environment on its functional and related activities as well as the way the observers behave are regarded as one of the most important subjects of functional quality of the space. Diversity, popularity, flexibility and safety are the main features of functional quality of the space.

The purpose of investigating functional quality of informal fabrics is to respond settlers' needs and to reform social functions throughout residential spaces [15]. But this requires urban recovery of the area which is possible by interacting with people, creating economic, political and social ties. Such relationships are the fruits of the social feature of the space. Thus, in order to avoid decreasing the number of active residents in the spaces as well as meeting people's needs, flexibility and spatial diversity of the spaces must be taken into consideration because the feature can be a vital element for improving informal fabrics [21].

2.1.2. Experimental and Aesthetic Quality in Informal Fabrics

"Experimental and Aesthetic Quality" component addresses perceptual, cognitive understanding and environmental preferences of the residents in the face of urban spaces [6]. In fact, it is a quality which effectively attracts people to the space to use their perception for understanding the concept of the space. This impact on the residents can make them enthusiastic about grasping the quality of the space. Spatial proportions, enclosure, physical form of the space are considerable qualities but ignoring them can decrease the presence of the residents in urban spaces and consequently causes negative effects. Due to the situation of the spaces in informal areas, the mentioned qualities have not been defined and as a result, the residents lose their perception of the spaces. What is necessary to take into consideration is to identify appropriate forms for increasing the spatial proportions. The forms and spaces where people could spend time in which results spatial experiences [25]. The urban spaces that have been formed informally are quite facing the loss of their real images. Due to inappropriate building constructions or because of destroying old buildings, and on the other hand; due to the decrease in primary functions, the real images of these contexts are not identifiable and their usable spaces have lost their value [10].Possible reasons for the decrease can be identified by analyzing the present studies and potential factors that can also be obtained to acquire the dynamics and proper spatial definitions. Therefore, identifying spaces with unique features and functions can be aesthetically and experimentally regarded as another approach to investigate and improve the quality of the spaces. In other words, the necessity of considering potential spaces in informal fabrics to cherish the vitality and memories of the spaces is regarded as a key factor in investigating the qualities of the spaces [22].

2.1.3. Environmental Quality in Informal Fabrics

"Environmental Quality" component aims both micro aspects including urban spaces microclimate adjustment (sunlight, air currents and shadow) and macro aspects including concerns about environmental stability which address the quality of ecological balance in urban environments and the manner of utilizing natural resources such as water and land uses relating to urban planning [21].

Nowadays, microclimate factors of informal settlements are ignored. Additionally, artificial body of the spaces are not seriously taken into consideration while they are useful to struggle with undesirable natural factors. Physical and functional conditions of the spaces destroy the vegetation cover of the spaces and causes lack of greenery in these areas so that there is not a regular place for such natural factors [5]. In some areas, destructive units cause a significant amount of garbage in the spaces and the result is the environmental pollution due to unpleasant smell and undesirable factors which lead to worsening environmental qualities. Therefore, the quality of the spaces can be improved in informal settlements by considering natural

environments or green spaces inside them and also utilizing appropriate natural resources and the potential of ecological environs can be used to provide convenience for the residents [4].
Considering the above-mentioned subjects and the three comprehensive indexes, it seems that these indexes are useful for measuring and analyzing the suitability of the spaces especially the spaces with the level of informality. Furthermore, quantitative and qualitative analyses of informal fabrics are both necessary to determine priorities more accurately and quickly. In this regard, to obtain more desirable results, qualitative indexes of the environs must be taken into consideration besides quantitative indexes [8]. Thus, in the present study which has been carried out with the purpose of investigating and analyzing the effective components of the urban environments in the quality and suitability in order to determine the areas of urban physical intervention throughout informal settlements as an urban place, the model of sustainable place of Canter has been propounded as the highest standard for the quality of residential spaces compared to other cases. Therefore, in the final classification of the effective components of informal fabrics, three components of the functional, aesthetic and environmental components were selected as the high standards and the substandard components were classified and selected according to the investigation and compatibility with the mentioned theories.

3.Materials and Methods

To achieve the main purpose of the study, the present research has been carried out through an applied study with a qualitative analysis using a survey approach. Therefore, an analytical descriptive approach has been used to obtain the qualitative components using some library reference books, survey analytical methods and direct observations about the space in order to collect and analyze the required data about the research. As it is seen in Figure 1, the analytical method of the study is based on the Fuzzy Delphi Method in order to assess the opinions of the related experts and also the AHP Technique was used for the final weighting and prioritizing of the components and qualitative indexes obtained from the Delphi Questionnaire.
The components were determined through the Logical Reasoning Method during the initial stage. Then in the second and third stages, the Indirect Survey Approach based on elites' opinions has been used through the Closed Questionnaire Technique in accordance with the literature review and the elites' opinions about the subject of the study. The statistical population of the research is composed of two groups of experts and the residents of informal settlements in which both groups' opinions have been assessed. The first group of the experts, as indicated in Table 2, includes the professors and PhD students in architecture, urban design, and social science and the second group is composed of the experts including architects, designers and urban planners, urban managers, consolers, policymakers, decision-makers at top management levels who are active and involved in the issues related to informal contexts. In order to determining the effective parameters in the quality of informal fabrics and urban spaces, survey forms including all the parameters which are achieved from literature were provided and sent to the experts in the first group of the research to be completed in order to weight different parameters relating to informal fabrics. After determining the effective environmental quality indicators in informal spaces through reviewing the theoretical foundations and by Fuzzy Delphi Method, it seems necessary to prioritize the areas of urban physical intervention in theses settings. According to the evaluation of qualitative indicators and taking into account the set of influencing factors and studies done yet, the selected method to prioritize the areas of intervention will be equivalent to the method of analytical hierarchical process (AHP) [1].
The technique is considered superior to other methods according to its simplicity and high accuracy and since it has the ability to reducing the application of personal taste in the process of analyzing, it is considered strongly. It should also be noted that in this technique, in order to study and determine the priorities in the areas of intervention, a number of sub- indicators can be considered simultaneously. In this regard, the qualitative variables were evaluated according to the experts and actors involved in the intervention process in these contexts of the city and then geometric mean of each score was analyzed as the final value of the relevant section.

Figure1. The Conceptual Model and the Process of the Research

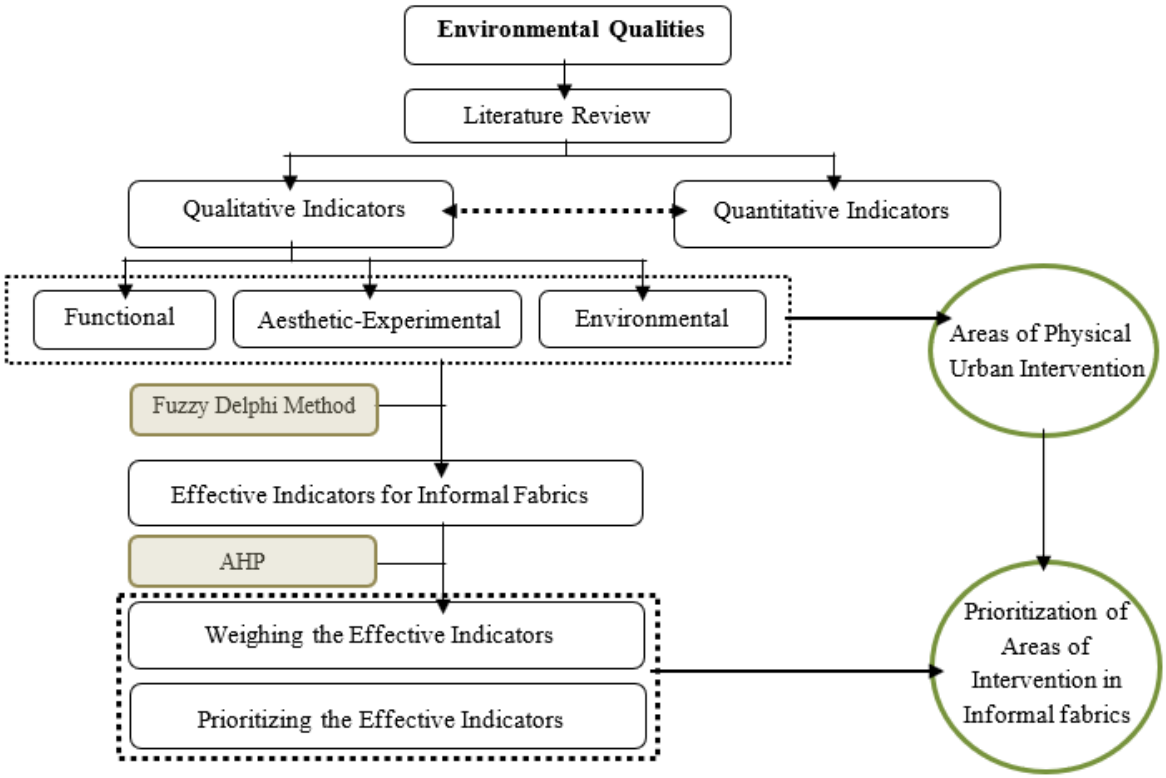


Table 2: Demographic Profile of the Experts Community

category	age	Job position	Level of education	number
1	Over 30	University professors in the fields of Architecture, Urban Design, Urban Management	PhD	10
		PhD students in Urban Planning, Architecture, Social Sciences	PhD Candidate	5
2	Over 40	Employees and Managers of the Municipal Administration	Bachelor/Master	15

4.Results

According to the obtained results of Fuzzy Delphi Analysis, as shown in Table 3, the components in which the none fuzzy average of the elites' opinions were less than 7 were deleted. Therefore, 13 out of 37 components were deleted from the final list of the research so that the final check list has only 24 components.

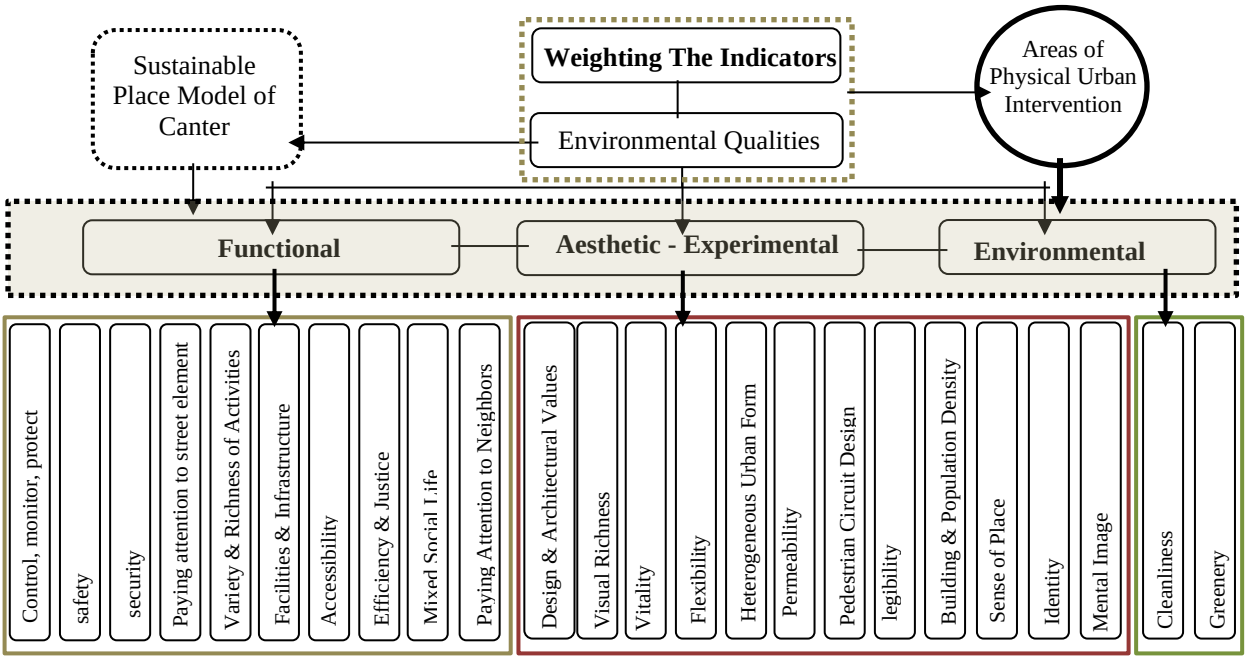
In the following, 24 codes in the form of closed questionnaires with Likert Five-point Responses Scale were taken into consideration by 10 experts of the second group and the total score for each code is shown in the table below.

Table 3: Fuzzy and None Fuzzy Scores of Environmental Quality Components in Delphi Process

Related Index	**Components/ Sub-Indicators**		**Geometric Average**	**acceptable ≥7**	**Score**	
Sustainable Place Model			Through Delphi Fuzzy Method		Total	Average
Environmental	1	Natural Context	4.56			
Experimental-Aesthetic	2	Originality & Meaning	6.34			
Functional	3	Paying Attention to Street	8.51		27	**2.7**
Experimental-Aesthetic	4	Design & Architectural Values	7.32		27	**2.7**
Functional	5	Control, Monitoring & Protecting	9.31		39	**3.9**
Functional	6	Security	9.41		37	**3.7**
Experimental-Aesthetic	7	Heterogeneous Urban Form	7.40		29	**2.9**
Functional	8	Safety	9.72		47	**4.7**
Experimental-Aesthetic	9	Sense of Place	9.50		43	**4.3**
Functional	10	Variety & Richness of Activities	8.90		42	**4.2**
Experimental-Aesthetic	11	Harmony & Compatibility with Context	3.80			
Experimental-Aesthetic	12	Space Enclosure	4.86			
Experimental-Aesthetic	13	Visual Richness	8.37		34	**3.4**
Functional	14	Efficiency & Justice	9.51		47	**4.7**
Functional	15	Continuity & Attachment	6.86			
Environmental	16	Climate Comfort	1.26			
Functional	17	Mixed Social Life	9.30		42	**4.2**
Experimental-Aesthetic	18	City View	5.70			
Experimental-Aesthetic	19	Identity	7.50		38	**3.8**
Experimental-Aesthetic	20	permeability	7.86		35	**3.5**
Experimental-Aesthetic	21	Vitality	9.42		33	**3.3**
Experimental-Aesthetic	22	Pedestrian Circuit Design	8.40		33	**3.3**
Experimental-Aesthetic	23	legibility	8.60		28	**2.8**
Experimental-Aesthetic	24	Flexibility	8.51		24	**2.4**
Functional	25	Mixed Use	6.41			
Functional	26	Accessibility	9.31		40	**4.0**
Functional	27	Variety	4.73			
Experimental-Aesthetic	28	Scales & Proportions	5.44			
Functional	29	Paying Attention to Neighborhood Unit	8.50		31	**3.1**
Functional	30	Facilities & Infrastructure	9.07		44	**4.4**
Functional	31	Compactness	1.26			
Experimental-Aesthetic	32	Building & Population Density	8.60		37	**3.7**
Experimental-Aesthetic	33	Mental Image	8.57		42	**4.2**
Functional	34	Hierarchy	1.18			
Functional	35	Privacy	1.30			
Environmental	36	Cleanliness	7.57		40	**4.0**
Environmental	37	Greenery	7.00		36	**3.6**

Since weighting is the most important part of an evaluation system, only in this way the topics of a system can be prioritized [1]. In this study, the weighting was done by AHP technique, so that the topics were compared and evaluated separately for each index of the selected model and in pairs. Therefore, the hierarchical analysis model was first drawn by the researchers and accordingly, the pairwise comparison questionnaire of the indexes and the sub indicators were created and provided to the experts. After completing the paired matrixes and measuring the incompatibility rate, the weight of each index were calculated. Figure 2 shows the model of weighting the indexes and sub indicators through AHP technique.

Figure2. Model of Weighting the Indexes and Sub-Indicators through AHP Technique



In order to discover the rate of agreement among the experts about each index and then the area of intervention, the easiest method was initially used i.e. subtotal of the points and their average after collecting the data at this stage.

Table 4 shows the total and average scores of each components and each index of the model and also the rankings are brought in this table.

Table 4: Findings from the AHP Technique

model	component	Total score component	Average score component	Average score ranking	Information content	Component's weight	ranking	Average weight model	Average weight ranking
functional	Control, monitoring & Protecting	39	3.9	6	0.996	**0.04788**	3	**0.04777**	**1**
	Safety	47	4.7	1	0.998	**0.04797**	1		
	Security	37	3.7	8	0.994	**0.04778**	5		
	Paying Attention to Street Element	27	2.7	16	0.979	**0.04706**	14		
	Variety & Richness of Activities	42	4.2	4	0.996	**0.04788**	3		
	Facilities & Infrastructure	44	4.4	2	0.997	**0.04793**	2		
	Accessibility	40	4.0	5	0.997	**0.04793**	2		
	Efficiency & Justice	47	4.7	1	0.998	**0.04797**	1		
	Mixed Social Life	42	4.2	4	0.993	**0.04773**	6		
	Paying Attention to Neighborhood Unit	31	3.1	13	0.990	**0.04759**	10		

Experimental-Aesthetic	Design & Architectural Values	27	2.7	16	0.979	**0.04706**	14	**0.04756**	**2**
	Visual Richness	34	3.4	11	0.992	**0.04769**	8		
	Vitality	33	3.3	12	0.991	**0.04764**	9		
	Flexibility	24	2.4	17	0.972	**0.04672**	7		
	Heterogeneous Urban Form	29	2.9	14	0.992	**0.04769**	8		
	Permeability	35	3.5	10	0.996	**0.04788**	3		
	Pedestrian Circuit Design	33	3.3	12	0.979	**0.04706**	14		
	legibility	28	2.8	15	0.982	**0.04720**	13		
	Building & Population Density	37	3.7	8	0.997	**0.04793**	2		
	Sense of Place	43	4.3	3	0.995	**0.04783**	4		
	Identity	38	3.8	7	0.985	**0.04735**	12		
	Mental Image	42	4.2	4	0.993	**0.04773**	6		
Environmental	Cleanliness	40	4.0	5	0.989	**0.04754**	11	**0.04755**	**3**
	Greenery	36	3.6	9	0.990	**0.04759**	10		

5.Discussion:

As we expected and shown in Table 4, the findings obtained from the frequency [Table] shows different ranking for the indexes compare to the AHP Algorithm; therefore, the AHP Algorithm has more accuracy to weight the indexes. Accordingly, it seems that quality components in "Functional" category have maximum significance for informal settings from the perspective of experts which means that to improve the quality of these settlements, primary needs, not the preferences, should be considered throughout initial stages. Although, it is worth to note that all these qualities mentioned here in order, will have cultural implications in a planned process that will act in relation to the residents' needs and will definitely change the behavioral patterns gradually in urban spaces which are themselves a key factor in measuring the level of qualification in spaces. Also, in discussing the environmental qualities in such urban spaces with different degrees of vulnerability as well as with different characteristics and conditions in compare to the main city spaces, the concept of quality is becoming important firstly at the lowest level in relation to the needs of residents. Certainly, economic, managerial and cultural issues will play a vital role in these urban contexts as well. Defined environmental and physical qualities will make sense from a positive introspective point of view through planned process of management on behalf of organizations involved in these urban quarters, assumption of budget allocation and even private sector encouragement to invest on these parts of the city**.**

6.Conclusion:

Currently, studies and surveys conducted on the problematic urban contexts are carried out under different titles in Iran. They all tend to identify and prioritize areas of intervention through approved criteria and indicators, most of which are related to quantitative data. At first glance, it seems that theses approved indicators will have the necessary efficiency and comprehensiveness in evaluating and overlapping all the criteria that can be considered in dealing with informal fabrics. But theses approved indicators cannot meet all the informal problematic urban spaces in Iran. This means that if specific and approved indicators and sub-criteria are reduced in identifying the mentioned urban fabrics, the final result will not have its initial theoretical power and validity.

Therefore, in order to assess and improve an informal urban fabric properly, it seems essential to develop other effective indicators as qualitative components in studying urban contexts. In this sense, informal settlements of Mashhad City in which qualitative indicators

are measured, are selected as a case study and the results could be generalized to other settlements and fabrics all over the country.

Accordingly, the present study aimed to discover the effective qualitative indexes in improving the quality of lives relating to the citizens of informal settlements in order to prioritize the areas of physical urban intervention in these urban fabrics. It also explained how to use the Fuzzy Delphi Method to provide the indexes and how to prioritize the indexes and sub indicators through AHP technique. For this purpose, two groups including 15 experts for each group were selected and after reviewing the literature of the subject, the elites' opinions were used based on the purpose of the study. At each stage, 10 questionnaires were completed and then submitted. Finally, 24 components were obtained from the Delphi Questionnaire. During the process of closed questionnaire, the model and its components was re-examined by the elites of the second group. The findings obtained from the analysis through AHP showed that functional, experimental-aesthetic and environmental models respectively, could play a role in improving the quality of the informal settlements and among sub-indicators the components of safety, efficiency, justice, facilities and infrastructures, accessibility, building and population density are 5 most vital quality components.

It should be acknowledged that if the approved indicators are applied in the process of renovation, then an arrangement should be adopted so that all the problematic urban spaces throughout the country are in a specific category. In this way, it is possible to propose fixed and approved indicators for each category of existing urban fabrics while taking into account each and every condition affecting one individual category.

Ultimately, according to Table 5, the priority of effective qualitative components in improving the quality of life in informal settlements was provided.

Table 5: Priority of Quality Components, Indexes and Areas of Intervention in Informal Fabrics

Prioritization Of Components			**Prioritization of Related Index**	**Related Components In Order**
			Priority of Urban Physical Intervention	
1	Safety Efficiency and justice		**Functional**	Safety/1 Efficiency and justice/1 Facilities and infrastructure/2 Accessibility/2 Control, monitoring and protecting/3 Variety and richness of activities/3 Security/5 Mixed social life/6 Paying attention to neighborhood/10 Paying attention to street elements/14
2	Facilities and infrastructure Accessibility Building and population density			
3	Control, monitoring and protecting Variety of richness of activities			
4	Sense of place			
5	security		**Experimental - Aesthetic**	Building and population density/2 Permeability/3 Sense of place/4 Mental image/6 Flexibility/7 Visual richness/8 Heterogeneous urban form/8 Vitality/9
6	Mixed social life Mental image			
7	flexibility			
8	Visual richness Heterogeneous urban form			
9	vitality			

10	Paying attention to neighborhood unit greenery			Identity/12 Legibility/13 Pedestrian circuit design/14 Design and architectural values/14
11	cleanliness			
12	identity		**Environmental**	Greenery/10 Cleanliness/11
13	legibility			
14	Pedestrian circuit design Design and architectural values Paying attention to street elements			

Thus, considering the indexes of the environmental quality in the mentioned urban spaces in every social class creates the opportunity for the residents to meet the next layers of their needs so that their activities, behavioral patterns and viewpoints in their social and individual life can be affected by every possible change. All these factors can help them to increase the self-confidence and satisfaction levels of the residents in these areas.

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