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Sustainable Criteria Evaluation of Neighbourhoods Through Residents' Perceived Needs

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ABSTRACT: Following the changes in the paradigm of urban studies in recent years, sustainability has become an increasingly important issue in the neighborhood's planning and designing. However, this concept has originally been developed for American and European neighborhoods' planning, it could also be customized for other neighborhoods'. Additionally, in the neighborhood scale, the quality parameter factors are more sensible and understandable. Therefore, attention to use these parameters may have better results for neighborhood sustainability concept.
This paper claims that if subjective indicators that customized with local context and derived from residents' perception about sustainable neighborhood are being used, significant differences between residents' valuing on subjective criteria of sustainability from one neighborhood to another would be found. For this claim, the paper has studied the two neighborhoods of Tehran, as a metropolis with different socio-economic and socio-cultural diversity in its neighborhoods. The findings show that the resulted criteria in the neighborhoods of Tehran, in comparison to each other, have meaningful differences.

Keywords: *Sustainability, Lifetime neighborhood, Criteria, Perceived needs.*

INTRODUCTION

Definition of sustainability has had wide range from WCED's[1]definition (1987)[2] to date. In the beginning, environmental resources had been emphasized, but in next years, in addition to cited issue, also livability and quality of life have been highlighted (e.g. Flores et al., 2000 ; Shafer et al., 2000)[3].The linkage between sustainability and quality of life is based on the assumption that without the achievement of an objectively and subjectively sufficient environmental quality, a sustainable development of society cannot be attained (Moser, 2009, 351-352). Care should be taken when making inferences about improvements in subjective urban QOL[4] based on improvements in objective urban QOL (McCrea et al. 2006, 91). However, results from studies in other life domains show objective indicators were generally found to be weak predictors of satisfaction in related life domains (Cummins, 2000; Evans and Huxley, 2002).
Recent definitions have located humanbeing as a focal point in concept of QOL and livable environments. WHO-QOL[5] Group (1993), for example, defined QOL as "an individual's perception of his/her position in life in the context of the culture and value systems in which he/she lives and in relation to his/her goals, expectations, standards and concerns". According to this definition, and in result of Flores (2000) and Shafer (2000), perceptionplays a vital role in sustainability of the place. Because of enhancement of human interaction with environment in smallersub-areas of the city, as with changinggeographical scale in hierarchy of city to neighbourhood, perception is increased.Such perception has direct relationship with sense of belonging to place and place attachment. Sik Hung Ng et al. define place belonging, as a sense of belonging to a particular place as if it were one's own home, is territory-based and can be distinguished from belonging to a social group based on ethnicity, gender, religion, and so forth (2005, 349). In addition, neighbourhood attachment is a social-psychological process that captures one's emotional connection to his or her social and physical surroundings (Brown, Perkins, and Brown, 2003, 2004a). Neighbourhood attachment is shaped by features of the built environmentand perceptions of that environment (Hummon, 1992). What is arised from these definitionsis their insistence on subjective factors such as psychology, emotion, and perception that in their turn give significant contribution to well-being as one of most important subjective indicators of quality of life (Argyle, 2001).

MATERIALS AND METHODS

The method of the survey instrument is a questionnaire with 45 close-ended questions. It is analyzed via independent sample t-test. Since each of neighbourhoodsis to be assumed as an independent statistical society and the result of the two surveys will be compared, the method of independent sample test has been used. The questionnaire covers different components that represent indicators of sustainability shown in figure3.In addition, because of qualitative questions, the responses ranged from strongly low value= 1 to strongly high value =10. Based on the Cochran formula for sample

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size estimation, with confidence level 95%, d=0.1and with regards to the population of the two neighbourhoods (3300 and 23000), the number of 93 and 96 questionnaireswas considered for these two cases of study. Data has been gathered using a self-report questionnaire delivered to participants by trained interviewers.

Data Analysis

A questionnaire survey of two neighbourhoods was carried out concurrently, then data were coded, entered and checked using SPSSv18.0. The average responses score of the indicators of each criterion was calculated as the score of the criterion for each respondent. Using an independent sample t-test, is examined to find out whether if differences are significant between two means for both independent samples.

Importance of Residents' Perceived Values in Neighborhood Sustainability

In attempt to define a neighborhood, Seville in Beacon Report identified three broad approaches to neighborhoods over the last century. One type of definition relates to defining neighborhoods in relation to their spatial features, particularly population and building densities, travel times to services and other proximity measures. The second type of definition defines neighborhoods using detailed descriptions of activities that are presumed to be uniquely suited in neighborhoods. Thirdly, there are definitions that relate to a sense of belonging to a place and relating to neighbors (Saville et al., 2009, 5).
What is emerged from above is that along with spatial features and activities, importance of issues such as sense of belonging to a place and relation to neighbors should not be ignored. These are so significant elements for improving residents' subjectivity of sustainability concept. Additionally, Kim denoted sustainable neighborhood planning concerns including site planning and landscape design, balance of mixed uses, housing and support facilities, experiences of safety, identity, and sense of place (Kim, 2005). In here also there are important elements such as safety and identity which both of them are subjective factors in people's perception of sustainability. As it mentioned in the literature, if people are to be satisfied with the different aspects of their environment, the (environmental) requirements of sustainable development would can be met (Bonaiuto et al, 1999).
What is explored is to clarify residents' subjectivity of a sustainable neighborhood by using global-accepted but localized criteria. In any neighborhood, there are subjective values that are resulted from different issues such as convention, climate, and culture, physical, economical, and political conditions, which altogether constitute what is called "context". It is crucial that, in future legislative framework for development and growth, the "urban design" scale concerned with the creation, regeneration, enhancement and management of built environments that are sensitive to their local contexts and sympathetic to people's needs, should not be neglected (Oktay, 2002). Based on level of their consciousness, people perceive contextual values and on which decide whether something is good or better, sustainable or more sustainable. Therefore, it is important to adapt with sustainability criteria of the neighborhood to these values in order to customize the criteria based on local context. This results to good awareness of local capability, which is reached by detailed exploring residents' subjectivity. It means that residents' perceived values identification is needed for assessing their acceptance of sustainable criteria in built environment. Such capability is an essential factor for public participation that is needed for social sustainability.
According to above definitions of two concepts of "neighborhood attachment" and "sense of belonging to place", adaptability between sustainability criteria and subjective values has significance relationship with both concepts that together lead to better public participation in dealing with problems of neighbourhood. In conclusion, if place

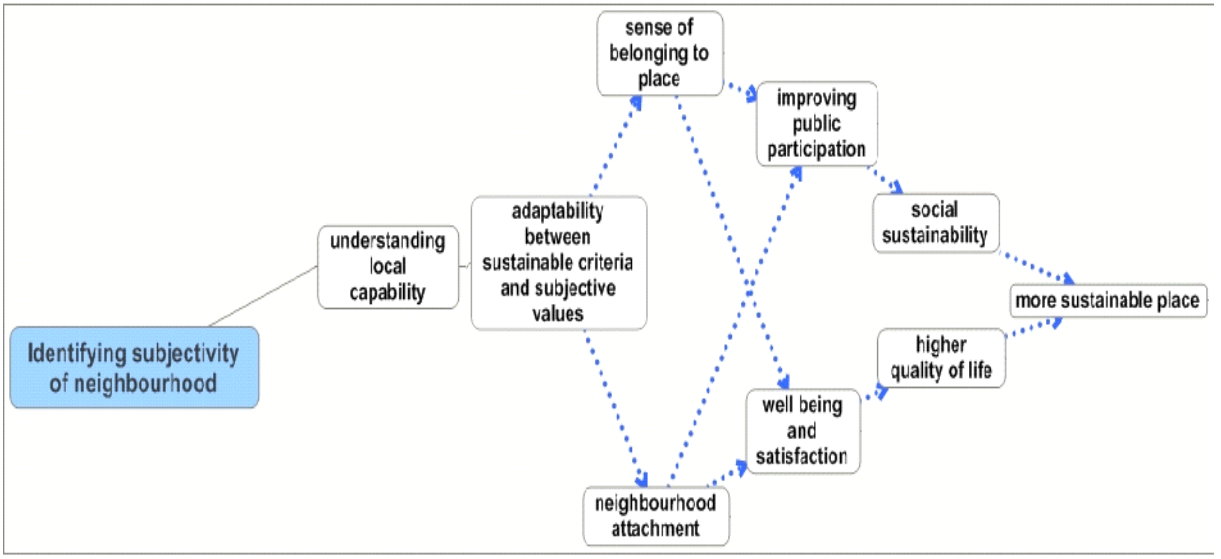

Fig. 1: Relationship between residents' subjectivity and sustainable neighborhood concept

attachment and sense of belonging to place and subsequently satisfaction sense increases in a neighbourhood, it causes higher quality of life and sustainability.

Relationship Between Sustainable and Lifetime Neighbourhood Principles

The concept of Lifetime Neighbourhoods is not a new one, but has yet to make a significant impact on planning and neighbourhood design. The concept has originated over the last decade by Habinteg Housing Association and developed by Department for Communities and Local Government of UK (Communities and Local Government, 2007).

Lifetime neighbourhoods are those, which offer everyone the best possible chance of health, wellbeing, and social, economic and civic engagement regardless of age.

A Lifetime Neighbourhood is one in which civic and social processes together with physical conditions achieve the following outcomes:

An environment that is accessible and inclusive, aesthetically pleasing and safe (in terms of both traffic and crime);

A community that offers plenty of services, facilities and open space;

A strong social and civic fabric, including volunteering and informal networks;

A culture of consultation and user empowerment amongst decision makers;

A strong local identity and sense of place.

However, Lifetime Neighbourhoods is a concept that focuses on responsibility of place to all ageing but it is important to note that lifetime neighbourhoods should be viewed as sustainable neighbourhoods that offer a good quality of life to all generations (Communities and Local Government, 2007).

Defining Criteria and Indicators for Case study

Characteristics of Tehran Neighbourhoods

Since its special environmental conditions, settlement patterns, economic activities, social processes and political changes, Tehran has been turned to the biggest city of Iran and the one of Middle East metropolises.

Tehran is a city, which has been affected by Islamic principles in all aspects such as cultural, political, social, and economical, and like any metropolises, it accommodates different people in its neighbourhoods with various racial and ethnic characteristics. Most of the neighbourhoods in Tehran follow a definite structure which is predominantly based on a main street around which important activities and uses have developed (e.g. in one of our case studies, Modiriatneighbourhood, the Allameh street plays this role). In such structure, one of the major elements of is mosque. Although in the recent developments, this order has sometimes not been considered, it could not be ignored. Many of Iranian neighbourhoodsdoesn't accord with existing neighbourhood theories in some of other countries (Choguill, 2008, 42), for example the elementary schools could not be an exact and appropriate criteria in the definition of neighbourhood size in Tehran. The some traditional neighbourhoods had mainly been rural areas, which have become a part of the city via the recent urban developments. There is an obvious diversity among the social and economic characteristics of the neighbourhood of Tehran, in particular between the north and south neighbourhoods (Madanipour, 2006). It means that, there are differences between the subjective values of residents in the different neighbourhoods.

Based on this attributes, the paper tries to define and customize indicators of sustainability of the neighbourhoods of Tehran. The existing studies have explained that global objective indicators of sustainability are not appropriate in the conditions of Tehran. And, human behavioral patterns, traditions, attitudes, beliefs and biases may be beyond the control of urban planners (e.g.a study on Riyadh, as a Middle East metropolis like Tehran, shows that the application of unlocalized theoretical concepts of the sustainable neighbourhoods leads to disappointing results (Choguill, 2008, 42). As a result, it is tried to define compatible criteria and indicators for planning and designing sustainable neighbourhoods in Tehran.

Theoretical Framework

As mentioned earlier, this study focuses on the subjective dimension of sustainability concept, which is derived from the resident's perceptions. Based on Fig.1,if the subjective criteria are to be accorded with the subjective value of the neighbourhood, they would lead to neighbourhood attachment and belonging to Place and they lead to satisfaction, well being, social sustainability, quality of life, and finally sustainability (Valera and Guardia, 2002).

The criteria for subjective sustainability have not significant difference from what is used in a west country, but it has some different in Meta criteria and some details depends on culture and political structure.

The framework used for criteria is what Lynch called as criteria for the good city form in his book with the same name (Lynch, 1984). These criteria are qualitative and have capability for converting to subjective indicators. The first criterion is "vitality" and it implies to capability of place to support organic human needs. In the other words, it is close to the first and second levels of human needs in Maslow pyramid (Maslow, 1970). For this criterion, Lynch has mentioned some factors such as housing, food, ecological needs, safety. Since some of them are not controllable in the neighbourhood scale, and because of the socio-economic structure of Tehran, only safety/ security and ecological needs have been considered in the current study. They are divided to four parts: "social security", "environmental safety", "psychological security", and "eco friendly". The criterion of eco friendly implies to the environmental sustainable development. The second criterion, mentioned by Lynch is "sense". For this, in addition to the sub criteria of "aesthetics" and "legibility", based on the results of the Sustainable Community Conference (2005) and the studies of Azizi (2006), the criterion of "identity" also could be considered. Identity means promotion of character in townscape and landscape by responding to and reinforcing locally distinctive patterns of development, landscape and culture (DETR, 2000, 15).The third criterion is "fitness" which in the neighbourhoods of Tehran is accompanied by "public acceptance of changes" that implies to subjective compatibility to new environmental or technical changes. One of the most important factors, which have significant impacts on the development of deteriorated areas, is the residents' disagreement with changes (e.g. widening streets for facilitating automobiles movement). For this criterion, previous research findings support the differentiation in residents' perceptions of the scale and nature of changes within, as well as between,

neighbourhoods. This difference was driven by a wide range of factors, including residents' age, gender, their length of residence, the amount of time they spent in the neighbourhood, the degree of reliance they had on neighbourhood infrastructure and facilities, their orientation towards change and the specific area of a neighbourhood that they resided in (Bashir and Flint, 2010). The fourth criterion is "access" which as Lynch has defined, could be divided in the two sub-criteria of "accessibility" and "diversity". Ease of movement promotes local permeability by making places that connect with each other and are easy to move through, putting people before traffic and integrating land uses and transport (DETR, 2000, 15). Diversity promotes choice through a mix of compatible developments and uses that work together to create viable places that respond to local needs (DETR, 2000, 15). The fifth one is "control" that has been customized in "public participation" which is a political principle or practice, and may also be recognized as a right. The terms public participation may be used interchangeably with the concept or practice of stakeholder engagement (Sanoff, 2000). The sixth criterion is "efficiency". Since the efficiency has an economic basis and economy is mainly uncontrollable in the neighbourhood planning scale, it has been intentionally ignored in the study. Finally, the seventh criterion is "justice", which because of the plural approaches of Tehran residents, could not be defined exactly, but in this study it customized by "equity" which is one of the most issues in sustainable development. It can be defined as development, implementation, and enforcement of environmental policies and laws to ensure that no group or community is made to bear a disproportionate share of the harmful effects of pollution or environmental hazards because it lacks economic or political clout. The concern about environmental equity and sustainability is that some group- either low income, an ethnic minority or an unknown future generation- bears the real cost of actions like pollution or the extraction of natural resources without receiving appropriate benefits (Farrow, 1997, 184) Table 1 shows lynch criteria and their customization process based on Lifetime neighbourhood principles and Tehran neighbourhoods characteristics.

Based on these criteria, a list of indicators is prepared for the neighbourhoods of Tehran. Based on these criteria, a list of indicators is prepared for the neighbourhoods of Tehran as following. There are two limitations in defining and customizing these indicators. There are a lot of indicators that can be defined in questionnaires, but in one hand mentioning all of them in a questionnaire would be time consuming and tiring for residents who answer them, and in the other hand, the more sensible indicators in the neighbourhood of Tehran should be selected for better results.

For example, traditional retails or mosques are so important in defining identity of the neighbourhoods of Tehran. According to these indicators, a questionnaire has been set. For each indicator, a question has been defined. Since the subjective capability of residents is important in neighbourhood sustainability, and it depends on the existing context of a neighbourhood, the different neighbourhoods located in the same city have different values for indicators. Fig. 2 illustrates translation of neighbourhood sustainability concept to two dimensions and customized criteria and indicators.

RESULTS AND DISCUSSION

Cases Study

By the questionnaire, two neighbourhoodshave been surveyed in Tehran. One of them is more traditional, named" Moradabad" and another one is "Pole-Modiriat". Despite there is not a far distance between these neighbourhoods, it seems that there is differences between the subjective capabilities of their residents. The position of these two cases of studies is showed in Fig. 3.

The population of "Moradabad" as a rural area in the margin of Tehran is about 3300 people. Although in recent developments of Tehran, it has become one of the new Tehran neighbourhoods, it tends to continue relatively traditional social structure. "Pole-Modirat" is more modern neighbourhood and has a population of 23000 people.

The results of the analysis of t-test have been shown in Tables 2 and 3.Table2 indicates group statistics of each criterion in the two neighbourhoods.

Table3 shows the SPSS results of testing the hypothesis that the average perception values of neighbourhoods residents about extracted criteria are significantly different in 9 criteria from 13. This table provides the results from the independent t-test and Levene's Test for Equality of Variances in the output.There are two slightly different versions of the t- test.

Table 1: Criteria customization process

Lynch criteria	Lifetime neighbourhood principles		Generalization
Vitality	safe (in terms of both traffic and crime)	Adaptation with Tehran condition and extracting customized criteria	Social security
Sense	aesthetically pleasing ,strong local identity and sense of place		Environmental safety
Access	strong social and civic fabric, including volunteering and informal networks		Psychological security
Fitness	accessible		Eco friendly
Control	culture of consultation and user empowerment amongst decision makers		Aesthetics
Efficiency	offers plenty of services, facilities and open space		Legibility
Justice			Identity
			Access
			Diversity
			Fitness
			Public acceptance of changes
			Public participation
			Equity

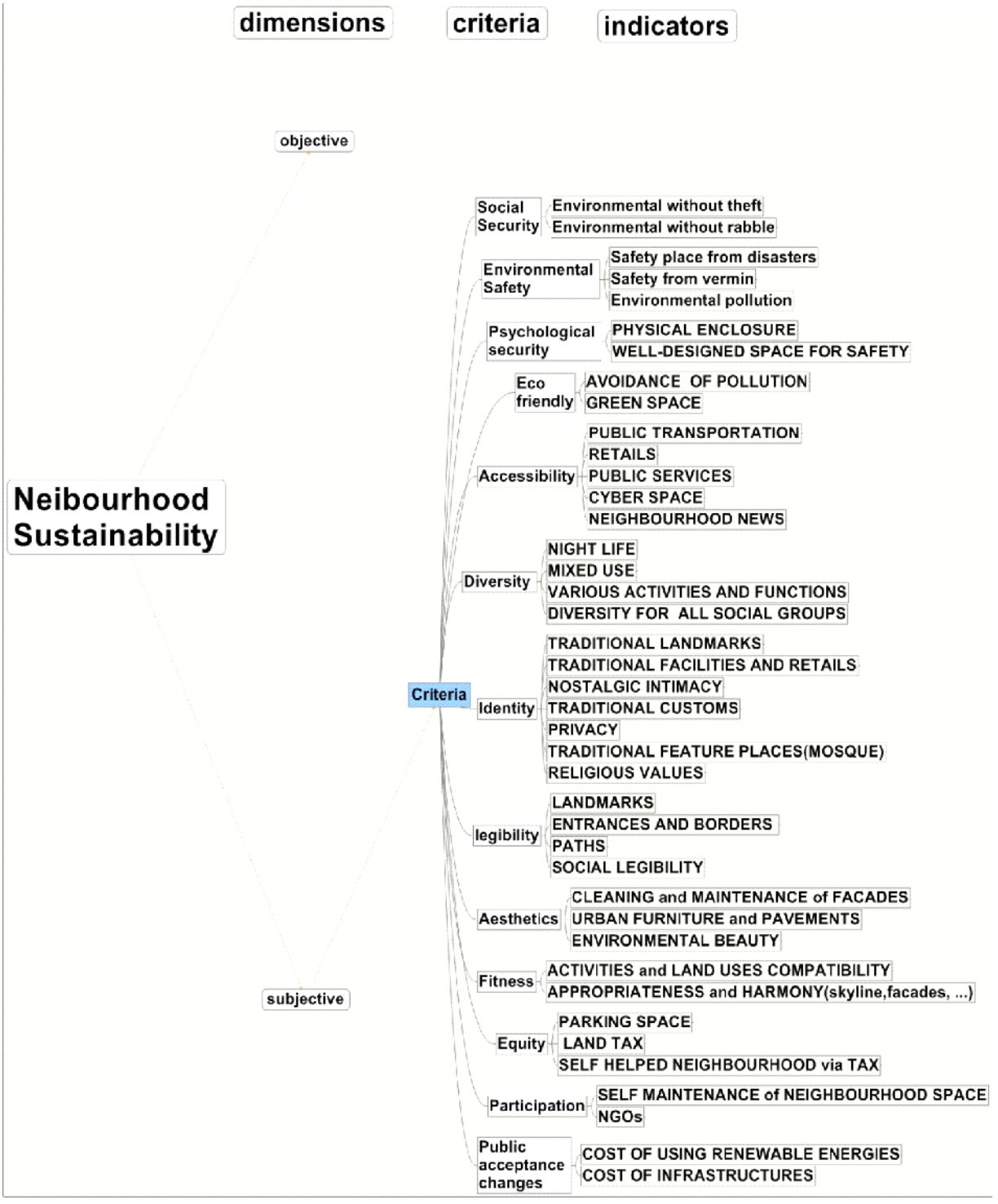

Fig. 2: Customized indicators of sustainability for Tehran neighbourhoods based on local context and lifetime neighbourhood principles

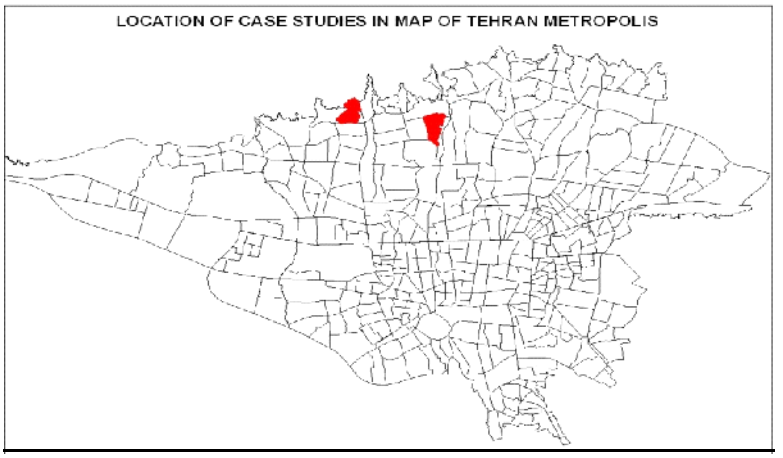

Fig. 3: Location of neighbourhoods

Table 2: Group statistics for samples

	VAR00001	Mean	Std. Deviation
Social Security	Moradabad	9.3842	.74539
	Modiriat	9.5417	1.30519
Environmental safety	Moradabad	7.8811	2.13064
	Modiriat	8.2479	1.22173
Psychological security	Moradabad	6.8895	3.11498
	Modiriat	6.9583	1.43942
Legibility	Moradabad	7.8611	2.11491
	Modiriat	7.0021	1.01556
Aesthetics	Moradabad	9.2126	.77353
	Modiriat	8.4521	.88043
Fitness	Moradabad	9.7842	.37652
	Modiriat	8.4896	1.14013
Access	Moradabad	9.0526	.88496
	Modiriat	8.6375	1.14075
Diversity	Moradabad	9.7895	.36742
	Modiriat	8.8604	1.02859
Public participation	Moradabad	9.5526	.79048
	Modiriat	8.6979	1.05501
Equity	Moradabad	9.3937	.50986
	Modiriat	8.3417	.96329
Identity	Moradabad	9.0411	.79486
	Modiriat	7.2354	1.15339
Eco friendly development	Moradabad	8.6684	1.33011
	Modiriat	8.1979	2.83352
Public acceptance of changes	Moradabad	9.0632	1.05246
	Modiriat	8.2708	1.85517

One makes the assumption that the variances in the two populations are equal; the other does not. This assumption affects how the standard error of the mean difference is calculated. If the variances are equal in both groups then the P-value ("Sig.") will be greater than 0.05 B (confidence interval). However, if the "Sig." value is less than 0.05, the variances are unequal. If there isunequal variances, then it needs to use the Equal variances not assumed row, otherwise you use the Equal variances assumed row.

Following, the differences of the criteria in the two cases of study will be described.

Social Security: As the above table indicates Sig value is more than á level for the test (0.05), implying that the variances are equal (sig = 0.928 and Sig. (2-tailed) = 0.308 > 0.05), which means that there was no significance of difference between means scores of the social security criterion. It may be because of the structure of Tehran. The neighbourhoods of Tehran are mainly enduring from the lack of security such as theft and crime. Therefore the subject has had the most importance in both of two examined neighbourhoods and also may be called as meta-criteria for neighbourhood of Tehran.

Environmental safety: As it is shown in the table: (sig = 0.000 and Sig. (2-tailed) = 0.147> 0.05). Related to this criterion, the

Table 3: Independent samples t-test table

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Social Security	Equal variances assumed	.008	.928	-1.022	.308	-.1575	.15401
	Equal variances not assumed			-1.025	.307	-.1575	.15360
Environmental safety	Equal variances assumed	143.033	.000	-1.462	.145	-.3669	.25099
	Equal variances not assumed			-1.458	.147	-.3669	.25166
Psychological security	Equal variances assumed	248.398	.000	-.196	.844	-.0689	.35054
	Equal variances not assumed			-.196	.845	-.0689	.35174
Legibility	Equal variances assumed	261.515	.000	3.584	.000	.8590	.23968
	Equal variances not assumed			3.572	.000	.8590	.24047
Aesthetics	Equal variances assumed	.078	.781	6.340	.000	.7605	.11997
	Equal variances not assumed			6.344	.000	.7605	.11989
Fitness	Equal variances assumed	81.108	.000	10.514	.000	1.2946	.12313
	Equal variances not assumed			10.559	.000	1.2946	.12261
Access	Equal variances assumed	1.664	.199	2.808	.006	.4151	.14784
	Equal variances not assumed			2.812	.005	.4151	.14765
Diversity	Equal variances assumed	140.819	.000	8.295	.000	.9291	.11200
	Equal variances not assumed			8.329	.000	.9291	.11154
Public participation	Equal variances assumed	31.426	.000	6.331	.000	.8547	.13500
	Equal variances not assumed			6.340	.000	.8547	.13480
Equity	Equal variances assumed	31.835	.000	9.419	.000	1.0520	.11170
	Equal variances not assumed			9.447	.000	1.0520	.11137
Identity	Equal variances assumed	.831	.363	12.585	.000	1.8056	.14347
	Equal variances not assumed			12.609	.000	1.8056	.14321
Eco friendly development	Equal variances assumed	18.533	.000	1.466	.144	.4705	.32085
	Equal variances not assumed			1.471	.144	.4705	.31978
Public acceptance of changes	Equal variances assumed	30.666	.000	3.625	.000	.7923	.21856
	Equal variances not assumed			3.635	.000	.7923	.21797

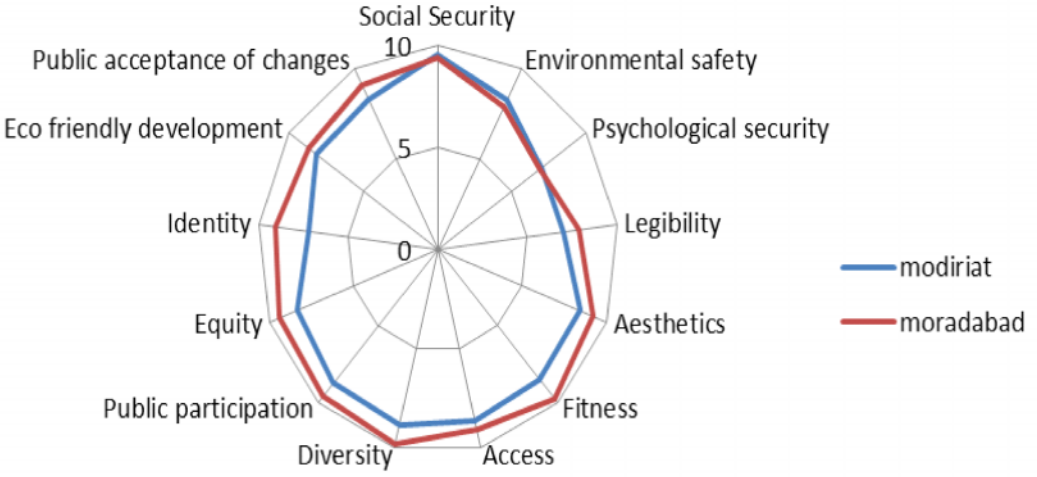

Fig. 4: Radar chart for comparing mean scores of criteria in casestudies

two neighbourhoods have similar situations. The results of the questionnaire imply that there is no certain difference between the viewpoints of the residents of the two neighbourhoods.

Psychological security: As it is considerable in the above table (Sig = 0.000 and Sig. (2-tailed) = 0.845> 0.05), psychological security, such as other criteria of security, does not show a meaningful and significant difference. despite social security, the issue of psychological security has not a high value in the approaches of the respondents in the two cases of study. As shown in Table 2, the mean of this indicator is less than 7 in two samples. The selected indicators for this criterion show that the residents do not pay a serious attention to the design of urban spaces with more security.

Legibility: For this criterion, there is a significant difference between these two cases of studies (sig = 0.000 and Sig. (2-tailed) = 0.00 < 0.05). Although finally none of the groups have considered the criterion of legibility as an important factor, the residents of the neighbourhood of Moradabad -based on its more traditional context- have more sense of belonging and were willing to have a clear mental map of their territory.

Aesthetics: As the group statistic and results of t-test are shown (sig = 0.781 and Sig. (2-tailed) = 0.00 < 0.05), the residents of Moradabad have more consideration about aesthetics indicators. The indicators such as quality of facades, urban furniture and the beauty of environment are more important for the residents of Moradabad.

Fitness: It seems that there is a sensible significant difference between the two neighbourhoods (sig = 0.000 and Sig. (2-tailed) < 0.05). The criterion, particularly for the residents of Moradabad, has an important value. Because of incompatible land uses in existing situation, there is not satisfaction among the residents of Moradabad. On the base of previous experiences, they have more sensitivity on importance of this criterion.

Access: Although the criterion is in a high degree of importance in two neighbourhoods, there is a significant difference between the visions of the two groups (sig = 0.199 and Sig. (2-tailed) = 0.006 < 0.05). According to the selected indicators of access, it is more important for the residents of Moradabad. For more justification of this subjective difference, it can be said that for example in current cultural behavior of Tehran residents, quality and facilities of education have more importance for parents in choosing children school rather than distance between home and school. It seems that because of better financial affordability in Modiriyat neighbourhood, distance between school and home as an access indicator in questionnaire was not significantly important.

Diversity: For this criterion, questions were applied that represent indicators including night life, mix use and various activities and functions based on needs of all age groups. The means scores for responses to these questions in Modiriat and Moradabad neighbourhood were significantly different (sig = 0.00 and Sig. (2-tailed) = 0.00 < 0.05).

Public participation: As Table 3 shows, there is a sensible significant difference between two neighbourhoods for this criterion (sig = 0.00 and Sig. (2-tailed) = 0.00 < 0.05). This perceptual difference can be described as follows. Because of more traditional structure in Moradabad, more sense of belonging and place attachment are apparent. So as Fig. 3 indicates, sense of belonging and place attachment lead to more sense of public participation for residents in this neighbourhood rather than Modiriyat.

Equity: Levene's Test for Equality of Variances has a sig of 0.000. This means that the variances are not equal and should be read from the "equal variances not assumed" row. In this case, it doesn't really matter, because the two-tailed p-value is 0.000 in both cases, and for this criterion t- test showed significant differences between case studies(sig = 0.000 and Sig. (2-tailed) = 0.000 < 0.05). For More explanation, because Moradabad residents have lower income, they are more sensitive particularly about economical inequality.

Identity: The means scores between identity criteria in Modiriatand Moradabad neighbourhood were significantly different (sig = 0.363 and Sig. (2-tailed) = 0.00 < 0.05). As Group Statistics table shows there is considerable difference between means in two cases (Modiriayat = 7.23 and Moradabad = 9.41). Older social and physical fabric in Moradabad increases this significant difference. Paying attention to traditional fabric of Moradabad, identical characteristics, particularly religion, were high valued from residents' viewpoint.

Ecofriendlydevelopment: Following to table 3, for this criterion sig. (2-tailed)= .144 and its bigger than confidence interval (5%)(sig = 0.00 and Sig. (2-tailed) = 0.144 < 0.05). there is not any significant difference between two neighbourhood.

Public acceptance of changes: The indicators applied for this criterion in questionnaire included value for accepting cost of renewable energies and also accepting costs of developing new infrastructure such as telecommunication. These indicators are more identifiable for residents and therefore, have been selected as thing, which indicates on public acceptance of changes. The results of t-test showed significant differences between case studies for this criterion (sig = 0.000 and Sig. (2-tailed) = 0.00 < 0.05). In addition, responses show more tendencies of Modiriat neighbourhood residents to public acceptance changes. For more explanation can be said the experiences in Iran shows that neighbourhoods which are more traditional have more resistance to new development changes commonly in Iran. This is one of the most important reasons for generating deteriorated area in cities.

CONCLUSION

The first point that can be resulted from this paper is to highlight consideration of the role of resident's perception in achieving sustainability in this scale.

Sustainability of neighbourhoods can be studied from two points of view: environment and human. The humanity dimension includes different issues such as economy, social life, and individuality. Personal perception of sustainability refers to quality of life and its subjective indicators. As it discussed in this paper, there is a linkage between the concept of quality of life and sustainability. Quality of life, especially in the scale of neighbourhood, is related to the perception of the residents and it means that subjective indicators are necessary in QOL evaluation. This perception is influenced by satisfaction and wellbeing, which are related to perceived values based on local environment where person lives. Therefore, the paper relies on subjective indicators of sustainable neighbourhood, based on the perception of the residents.

Secondly, the results of statistical analysis indicated that there

were significant differences between values of subjective indicators in neighbourhoods even though these case studies were not geographically far from each otherand both of them were located in a same city and same district. The present study scrutinized the importance value of the indicators in two neighbourhoods for residents. For this purpose, the defined indicators of sustainability are studied in two neighbourhoods with questionnaires which the respondents are asked to determine the value of each indicator in them. In despite of the two neighbourhoods are not in a far geographical distance, there was a significant difference between the results for 9 of 13criteria. Accordingly, this study shows different valuation and processes of planning and design even in these two near neighbourhoods. Therefore, this study shows that the indicators of sustainability should be customized based on the common values of each neighbourhood. This implies that it is possible to make a neighbourhood which could provide more satisfaction and sense of belonging in its residents if it would be planned and acted, based on subjective structure of residents of its own.

ENDNOTES

1. World Commission on Environment and Development
2. "Sustainable development is development that meets the needs of current generations without compromising the ability
3. 0f future generations to meet their needs and aspirations" "long term livability" and "a community's ability to develope and/or maintain a high quality of life in the present in a way that provides forthe same in the future"
4. Quality Of Life.
5. World Health Organization Quality Of Life.

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