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Strategic Planning to Organize the Urban Historic Fabric Emphasizing on the Environmental Concerns

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ABSTRACT: Considering numerous problems related to the old textures, sustainable development can be mentioned as the most efficient approach to avoid consequent shortcomings. The methodology adopted in the present paper is of analytical–descriptive type. Using the mentioned method, the data were collected through the field and documentary studies. The statistical society of present paper includes specialists in the field of urban planning who played an important role in the renovation of old textures in Amol, a city in the northern part of Iran. By observing the social, economic, and environmental characteristics in the studied region, and by interviewing the residents in Amol's old textures, the SWOT analysis, the analysis of strengths, weaknesses, opportunities and threats using qualitative method, was adopted in order to detect the old textures. To analyze the data, SPSS and Excel software programs were used. In this paper, efforts have been made to analyze the renovation of old urban textures as having in mind the sustainable development. To organize the old textures in Amol, the ST type strategy was adopted from diverse strategies in this paper. The mentioned strategy mainly focuses on the internal strengths in order to eliminate the external threats.

Key words: Urban sustainable development,Old texture, Strategic analysis, Amol city

INTRODUCTION

Currently, the issue of "historical and old textures" can be seen in all the cities of Iran, which is totally opposite to the modern urban life and the characteristics of a modern city. Structural and practical structure of these textures indicate the manifestation of the problems such as inconsistency with all the structures of the city, population density, concentration and activities, economic decline, decline of structural quality, reduction of residency values, the reduction of social qualities, unfavorable environmental conditions, the difficulties in accessibility, the problems about the traffic, and the cultural annihilation. The development of a secure and favorable environment for citizens' residency is important. This is due to the fact that there are not facilities in some urban textures, which leads to the manifestation of obvious differences in cities and the environmental quality of textures. This is in a situation where a sustainable and developed city is one in which a cohesive and logical relation between modern and old environments could be developed during the development of new environments, by which integration in urban textures realizes. Since old textures in Amol city are the reason for the manifestation of physical, economic, social and cultural difficulties, environmental organization and rehabilitation of old textures in Amol's residential textures in the renovation process needs the systematic approach with massive planning. Considering the fact that the physical demolition in old textures is the reason for their total annihilation, this matter could be assumed as an opportunity to compensate for the previous mistakes in relation with disregarding the principles of urbanization, environmental issues and sustainable development. To access this objective, initially many studies to achieve the indices of sustainable urban texture and

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the urbanization approaches have to be made in order to clarify and accomplish the objective of "sustainable development". This could be achieved by considering the threats and opportunities in these textures. Also, paying attention to the criteria, principles, and the patterns of strategic plans in cities and applying the principles in the rehabilitation plans in order to renovate the old textures and using the civil tasks in them by planners and administrative directors is highly important. The objective of the present paper is the recognition of one of the particular patterns for making the internal and external circumstances adjusted.

First Pattern, a passive pattern: The total objective of the passive pattern is that it could be named conservation pattern by which the weakness points for removing and reducing the threats could be realized.

Second pattern, a conservative pattern: In this pattern, it is attempted to reduce weaknesses by which the maximum usage from the opportunities would be realized. Any organization might recognize some opportunities in external environment, but due to the organizational weaknesses, the productivity may not be possible. In this situation, the adjustable pattern could provide the possibility to use the opportunities.

Third pattern, competitive pattern: This pattern is provided to exploit the strength points to cope with the threats and its objective is to maximize the strength points and to minimize the threats. In this situation, the previous experiences show that the inappropriate usage of the strengths could bring about unfavorable results, and no organization is allowed to use its strength to avoid the threats.

Fourth pattern, invasive pattern: In all the systems, a situation is needed to make the strength and weakness points maximum. Unlike the passive pattern, which is a reaction pattern, the invasive pattern is a passive solution. In this situation, through the strength points, the organization could go forward with the stages which are in parallel with the advancement in manufacturing and services market. (Golkar, 2004).

The descriptive approach has been used in the present paper. The geographical region in the present paper is 151 Ha in which 11790 individuals have participated. By referring to the residency regions, renovation organization, field attitudes and interviewing residents and specialists in descriptive designs in order to ask their opinions, and ask the academic and administrative outlooks about the studied region, the data collection has been accomplished. The analytical – descriptive method has been used in the present paper. The documentary, library, and field studies have been used to collect the data. Then, based on the obtained data, the ecological –environmental observation has been accomplished and then, to analyze the data**,** the SWOT model within the appropriate approaches in analyzing the proceedings in strategic planning process has been used. The SWOT model is a common means to detect the strengths, weaknesses, opportunities, and threats that exist in organizations or geographical regions using qualitative directed content method. As a matter of fact, the SWOT analysis, the analysis of strengths, weaknesses, opportunities, and threats was accomplished in order to detect the systematic strategy by which the best adaptability could be resulted. This way, the strength points and opportunities could be maximized whereas the threats and weak points could be minimized (Pieres, 1997; Nouri, et al., 2008). The exact definition of each factor has been defined as follows:

Opportunities: opportunities are the desirable conditions in the environment. For instance, the recognition of ambiguous sections in the environment or changes in the competitive condition and also the regulations or the technology developments could indicate the deterministic procedures in the environment.

Threats: threats are the very unfavorable but important conditions in the environment that the fundamental hedges for the current situation would be developed in this case.

Strengths: any skill, resource or a particular advantage in a domain would be a strength point. It means that a particular advantage in an environment comparing to other environments could be a positive characteristic that makes it superior.

Weaknesses: Limitations or inefficacy in using the resources, skills, and abilities that bring about the defects and hedges against the efficient performance in a strategic planning environment are recognized as the weakness points. Through this, lack of facilities

and resources and any weakness in the managerial abilities and such a situation could be considered as the weakness points.

This study was carried out in 2011-2013 at the main lab, Department of Geography and Urban Planning, Science and Research Branch, Islamic Azad University, Tehran, Iran.

MATERIALS & METHODS

As mentioned, through the recognition of opportunities and threats observed in the domains, the planners and directors could choose a pertinent strategy in order to detect real patterns. Moreover, the efficient domains could be specified through a pertinent strategy. In other words, within the recognition and determination of weakness and strength points the strategic plan would be realized. Therefore, SWOT analysis could be used through the recognition of major opportunities and threats with weakness and strength points and the comparison of them in a systematic approach in the decisions related to strategic selection.

Any urban texture involves two fundamental parts: a-structure, b- function. The parts of urban textures in which the structural and functional qualities have been decreased are called the old texture. Weariness are involved in two types a- relative weariness, b- total weariness. Whenever the activities and functions are provided to respond to the needs, the structure is damaged or the activity and function system is annihilated, and the structure is protected. At this time there is relative weariness, but through the two types of weariness there would be a total weariness. In this case, a particular pattern of renovation and rehabilitation is needed for total weariness and relative weariness. One of the diverse characteristics in the cities of Iran is the physical and social reduction in the old textures in the city, which due to internal and external factors, many difficulties could be emerged resulting in weariness in old textures (Azizi and Arasteh , 2009). Over the years, the weariness in urban textures has had to be revised in the urbanization process in the country. On the one hand, such a process leads to the advancement of sustainable development in the textures of cities and on the other hand, the modernization of old places would be realized as well.

There are two fundamental outlooks about the intervention in urban old textures: Functionalism and Culturalism. In the outlook "functionalism", the economic subjects are highly important whereas the content of "culture" is not mentioned in this outlook. In the "Culturalism" outlook, it is quite the opposite in that the cultural values are the most important subjects in the formation of environment, so that the values are the most fundamental matters in this outlook. In the "Functionalism" outlook, the old urban textures are considered in such a way to use them, and the change of these textures is mentioned in this outlook. Whereas in the outlook "Culturalism" the old textures are considered in order to categorize them in the museums, for this the protection from these textures is necessary. The "Urban Sustainable Development" is a well-known topic in the contemporary urbanization in which the academic literature provided for the urban development, policies, plans, and schemas have been mentioned the most. In the cities, the topics such as "Sustainability" and "Urban Sustainable Development" within the involvement of ecological, economic, social, cultural, and environmental dimensions realize.

The certain principles in the "Urban Sustainable Development" are mentioned as follows:
The storage in energy consumption, reducing the distance between workplace and residential area, reducing the use of cars for occupational travels, improving the public transportation network and pedestrian paths, protecting the biodiversity and the culture of the city, recycling the trash, and reducing the environmental pollutions. (Rahnama , 2005) Hence, it could be stated that rehabilitation and renovation is in consistency with the objectives of "Sustainable Development". In the other word, through the realization of the urban sustainable development, the rehabilitation and renovation proceedings could be realized as well so that the observation and determination of the sustainable development in cities is far essential in the process of "Rehabilitation and Renovation". (Turner, 1998).

In the sustainable urbanization based on the environmental issues, the other issues such as social and human issues, particularly social and economic justice and the development for pertinent dwelling

and healthy life for the citizens have been also mentioned. It seems that sustainable city involves two fundamental characteristics – one is the protection of the natural and environmental resources, the sustainability of resources for future generation, and people‘s consultation with each other for acting together; second is the protection of the cultural and historical values of city with rehabilitation and renovation proceedings in order to preserve the textures of the city and help the dynamism, development, and urbanization of city.

The weariness, annihilation, and destruction of the constructions and residential buildings is an unavoidable phenomenon so that putting effort to choose a pattern or strategies to make these places permanent is essential. Such strategies and patterns have to be involved in the local and ecological origins in which people‘s cooperation is essential as well. Here, the sustainable development is mainly focused. Also, with the passing of time, the historical heritage in protecting the social and economic issues has been considered. Therefore, the renovation of the urban centers has to be comprised of “more sustainable economy than culture” in which the outlooks “sustainable development” and “heritage planning” are the important elements.

Generally, it could be stated that renovation of urban textures is itself from one of the principles of “sustainable development”, whose consequences lead to the realization of sustainable development as well. The particular objectives to choose the renovation patterns for old textures are a precondition. These objectives have to be provided for the residents by which the following elements have to be involved in the sustainable development:

a- Preservation of physical structures of construction
b- Making the environmental conditions equal
c- Remerge the old centers and textures of city in an environment
d- People’s cooperation in repairing the city

The old texture of Amol with residents from the total residents is equal to 7.4%, 11790 individuals. 3026 families live in this region by the dimension equal to 3.89 (the dimension in all Amol is 4.35). The reasons for the reduction of family dimension in the old texture comparing to all parts of city are the older population and also the marriage of young people and their exit from the old texture. There are 2774 residential buildings in the old textures, which in all parts of city, this number is 33830. Population density in residential areas is equal to 1.1. This number in all parts of the city is equal to 1.08 showing more population density in residential areas, which is due to old residential buildings. Domestic gross population in the old texture is equal to 78 individuals, and this rate in Amol city is equal to 53 showing the dense and populated texture in the old region.

The economic characteristics of residents in old texture

Economically, 87.12%, 12.37% and 0.5% of the residents in old texture are employees, unemployed individuals, and retired ones respectively. About the unemployed individuals in the old texture, it can be stated that 7.38%, 34.35%, 51.67% and 3.83% of the individuals are elderly, house wives, students, and the retired ones respectively. About the employees working in old texture, 10.6%, 14.4%, and 75% work in the agriculture domains, industry, and the services respectively, which in all parts of the city this percentages are equal to 6.9%, 31.6% and 61.4%, respectively. (Consultant of Takht Poolad, first level studies, 2008).

The strategic analysis of sustainability in old texture

Within the recognition of indices through the Delphi technique, the SWOT model was used for the selection of a pertinent strategy in order to make the old texture sustainable. As stated previously, this model is the analysis of the weakness and strength points in internal environment and also the analysis of opportunities and threats from the external environment in order to provide a systematic process. In the present paper, in order to analyze the internal and external environmental issues which are helpful in the sustainability process in the old texture of Amol city and to do studies, the field and library methods within the observation of economic, physical, and social characteristics were used to get the recognition from the current situation of city. In the post-studies, SWOT matrix was developed; then the lists of effective internal and external factors on the sustainability in the molds of weakness and strength points and the opportunities and threats were specified. Finally, this

list was given to the specialists, through whose outlooks; the necessary adaptations were accomplished which resulted in the formation of the final SWOT matrix.

RESULTS & DISCUSSION

To depict the diagram of matrix, the external factors (opportunities and threats) and the internal factors (strength and weakness points) have to be adapted. After extraction of these factors through the field discoveries and collecting the outlooks of specialists in the studied region and adapting the various outlooks, it was specified that from the factors related to the opportunities, most of the coefficients were allocated to the massive historical bazaar, open spaces and representation of cultural and recreational usages, the parks and the green space of Haraz river in the old textures with the respective coefficients being equal to 0.0873 , 0.0745 and 0.0718. According to the data provided for table 1, all the scores for the opportunities in the viewpoint of specialists have been calculated 1.7304. (Table 1).

After justifying the matrix of external factors (threats), it was specified that among 11 threatening factors, lack of residents‘ outlooks in urban planning and management, negative effects of immigration culture on historical texture, and disregarding citizens’ viewpoints involve the coefficients being equal to 0.0859, 0.0678 and 0.0582, respectively. Generally, according to the data provided for Table 2, all the scores for the threatening scores have been calculated 0.6711, and the total score for the external factors has beencalculated 2.40. (Table 2) .

After observing the positive and negative external factors, to complete the SWOT model, the analysis of the assessment matrix for weakness and strength points has to be observed as well. Along this, according to the field discoveries and also based on the viewpoints of ecological specialists, some strength points in the old texture of Amol include the high social correlation and interaction observed in residents, urban originalities, and renovation of historical elements. The coefficients related to these factors are 0.0956, 0.0912, and 0.0881 respectively.

Table 1. The assessment matrix for external factors (opportunities)

Opportunities	The necessity coefficient	Rank 3 and 4	Score
Massive historical bazaar	0.0873	4	0.3492
open spaces and representation of cultural and recreational usages	0.0745	4	0.298
the parks and The green space of Haraz river in the old textures	0.0718	3	0.2154
Citizens ‘s orientation in cooperating in reconstruction of old textures	0.0686	4	0.2744
The valuable historical and cultural elements	0.0653	3	0.1959
Develop pedestrian paths in regions	0.0578	3	0.1734
Urban management ‘s Particular attention to organizing the old texture	0.0429	3	0.1287
Enact the renovation project for the old texture of Amol city	0.0318	3	0.0954
Total	1.7304		

Table 2.The assessment matrix for external factors (threats)

threats	The necessity coefficient	Rank 3 and 4	Score
lack of residents 's outlooks in urban planning and management	0.0859	1	0.0859
negative effect of immigration culture on historical texture	0.0678	1	0.0678
disregarding citizens 's viewpoints	0.0582	1	0.0582
The dominancy of engineering thought in urban management instead of small plans based on social planning in historical textures	0.0486	1	0.0486
The weakness of regulations about how using the historical textures	0.0435	2	0.087
Various organizations in city and their effects on the management of texture	0.03790	2	0.0758
Substituting the low income individuals with the citizens with high living duration	0.0367	1	0.0367
Utilitarian attitude to build the house through the architects	0.0345	2	0.069
Lack of trust of private sector financers to invest more	0.0317	1	0.0317
Lack of regulation about making the view of constructions attractive	0.0288	2	0.0576
Lack of attractiveness of historical textures for citizens living in new textures	0.0264	2	0.0528
Total	0.5	-	0.6711
Sum of threats and opportunities		2.40	

Table 3. The assessment matrix for internal factors (strengths)

Strengths	The necessity coefficient	Rank 3 and 4	Score
renovation of historical elements	0.0881	4	0.3524
The pertinent access in surrounding the texture	0.0462	4	0.1848
urban originalities	0.0912	4	0.3648
Being close to the main street	0.0734	3	0.2202
high social correlation and interaction observed in residents	0.0965	4	0.386
The diversity of usages	0.0239	3	0.0717
High local dependency among residents	0.0267	3	0.07995
Dynamic places due to people ‘s high referral	0.0540	3	0.162
Sum of threats and opportunities		1.822	

Table 4. The assessment matrix for internal factors (weaknesses)

Weaknesses	The necessity coefficient	Rank 1 and 2	Score
inadaptability of activities and applications	0.0763	1	0.0763
lack of access to automotives in some parts of old textures	0.0675	1	0.0675
Weak cooperation of citizens in planning and management of residential areas	0.0420	1	0.0420
The unfavorable quality of residential area	0.0408	2	0.08162
Residents ‘s living with low income	0.0412	1	0.04123
The weariness of a mass part of texture	0.0376	2	0.075128
Lack of urban functions such as social , cultural and training environments	0.0381	1	0.0381
The intervention of pedestrian paths in historical texture	0.0365	2	0.073
Disregarding the cultural and ecological patterns in new constructions	0.0213	2	0.04268
Social vulnerabilities	0.0325	1	0.03251
Inappropriate quality of residential areas	0.0308	2	0.0616
Residents ‘s lack of attention to develop the green areas	0.0232	2	0.04635
Lack of urban facilities	0.122	2	0.0245
Total score	0.7		
Sum of threats and opportunities	1.822		

Table 5. Codification of strategies

Effective external and internal factors on the sustainability of texture	S strengths	W weaknesses
Opportunities **O**	Invasive strategies	Reviewed strategies
Threats **T**	Diverse strategies	Passive strategies

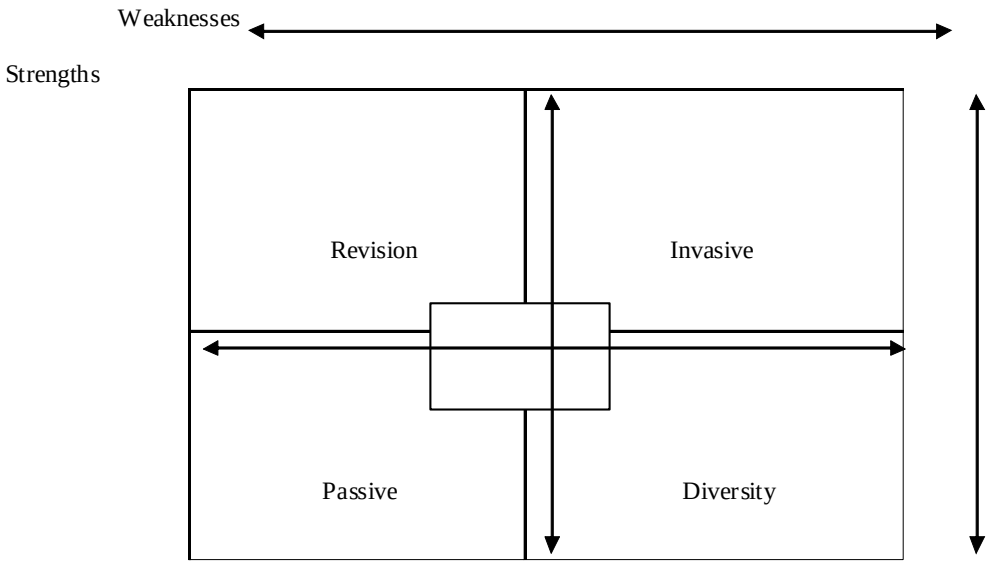

Fig. 1. Strengths, Weaknesses, Opportunities, and Threats (SWOT) matrix

According to the data provided in table 3, the sum of strength points in the viewpoint of specialists is equal to 1.822. (Table 3).

In the assessment accomplished by specialists, the coefficients of weakness points including the inadaptability of activities and applications and inaccessibility of vehicles in some parts of old textures with the coefficients of 0.0763 and 0.0675 respectively are amongst the highest coefficients for weakness points. Generally, based on the data related to the total scores, the weakness points and the total scores for the internal factors matrix (weakness and strength points) have been calculated 0.7 and 2.52, respectively. (Table 4).

According to the tables, the final score represented for the matrix provided for the external factors is 2.40 which is lower than 2.5 showing the superiority of threats to opportunities. The final score for the internal factors matrix is 2.52 which is higher than 2.5 showing the superiority of strengths to weaknesses. In other words, the pertinent planning strategies for sustainable development of old texture should be based on the internal strengths inorder to eliminate the external threats. As a result, the overlapped point in diagram of this matrix within external and internal points in competitive circumstance with ST strategies has been mentioned. (Fig. 1).

It has to be stated that in depicting the diagram of matrix provided for external and internal points, although the scores of assessment matrix for external and internal factors have been overlapped to ST strategies, the overlapped point in the assessment matrix for external and internal factors is oriented to the center. As a result, WT, SO or even WO square strategies involve high closeness. It could be stated that, although SO strategies involve priority and have

to be involved in the priority of development planning, the strategies provided for SO, WT, and WO groups have to be considered. For this reason, the following table has been provided to codify the strategies in this case. (Table 5).

The following strategies show the strategies provided for the ST group which are provided for the realization of urban sustainable development in old texture of Amol:

ST_1- Improving the local system as the social and cultural units(S_5, S_7 , T_1,S_4)

ST_2- Putting effort to realize the local sustainable results (T_1, T_3, T_6, S_3, and S_7)

ST_3- Avoiding the exchange transactions over dwelling and ground(S_2, T_9, T_{10})

ST_4-Organizing the view of neighborhood by getting inspired by the nature and using the local furniture (T_8, T_2, T_{11}, S_3, S_5, S_7, S_8)

ST_5-Applying the human scale in designing the urban architecture and environments (S_3, S_7 , S_8 , T_9 , T_{10} , T_{11})

ST_6- Increasing the citizens' right to make decision about the urban development (T_1, T_2, T_6, S_3 , S_5)

ST_7- Improving the concept of urban community and paying attention to non-physical dimensions in urban development (S_2, S_3 , S_5, S_7 , T_1 , T_2 , T_6 , T_8)

ST_8- Developing high density regions with social complexities (S_5 , T_9)

ST_9- Developing the aesthetic complexes in public environments (S_3 , S_5, S_7 , S_9 , T_2, T_9 , T_{10} , T_{11})

ST_{10}-Improving the public environments particularly the social and cultural environments in order to make a vital environment including park, library, local bazaar, health center, artificial ground (S_5, S_7, S_8, T_9, T_{10}, T_8)

CONCLUSION

On the one hand, due to the rapid changes in the cities and development planning, and on the other hand, due to disregarding the renovation and rehabilitation, functional, environmental, social, and economic defects have been observed in the old textures. As a result, the recognition of strategies and planning in order to provide a coordinated intervention based on characteristics of each region are required.

The SWOT model is one of the techniques, which can be helpful for the directors and planners to choose a pertinent strategy. The obtained results of this paper which are based on the field studies and viewpoints of specialists in this field can show the fact that there are so many strengths and weaknesses in order to renovate and rehabilitate the old texture in Amol city. Through this, it has to be specified that codification of strategy has to be in accordance with the internal strengths and external factors of threats. In other words, as shown in the matrix, the obtained scores of internal and external factors and ST strategies in the assessment show that the internal and external factors or ST strategies are the convenient strategies of sustainability in old texture.

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