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Evaluation of Land Consolidation and Renovation Processin the Decayed Textures: A Case of Study the Nezamabad Neighborhood in Tehran

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Abstract

Decayed textures have been one of the most important issues and challenges of Tehran's urban management in the last two decades. Therefore, numerous and varied policies, programs, and actions have been adopted and implemented in these decayed areas. The land consolidation is one of the approaches of the renovation of the old and decayed urban texture of Tehran based on resolution 300/310/15301 dated 24/07/2006 of the Supreme Council of Urban Planning and Architecture of Iran and clauses 9-5 of the detailed design rules and regulations finely executed. The purpose of this study was to evaluate the process of land consolidation in the renovation of the urban decayed texture of the Nizamabad neighborhood in zone 1, district 7 of Tehran Municipality. Most of the information required for this research was collected by the field study method. The respondent sampling of this study consisted of the developers, experts, fine-grained unit owners of the combined fine-grained parts of this neighborhood. SPSS software was used to analyze the descriptive data. Chi-Square and Friedman nonparametric statistical tests were used depending on the type of data, the scale of variables and goals. According to the results of this study, the process of implementation of consolidation renovation in the Nizamabad neighborhood has been faced with numerous and various damages.

Keywords: land consolidation, renovation, Nizamabad neighborhood, fine-grained, decayed texture.

1. Introduction

The Supreme Council of Urban Planning and Architecture of Iran, in its resolution 15301/310/300, dated 24/04/2006, has defined three criteria of instability, imperviousness, and fine-grained as the basic criteria for the identification and determination of decayed urban texture. In that resolution, instability; lack of proper structural system, inadequate building materials, imperviousness, lack of adequate access, and few passages with sufficient width (more than 6 m) for car and fine-grained texture, (less than 200 square meters) are introduced. According to the Secretariat of the High Council of Urban and Architecture of Iran ordinance, these criteria have the same value in identifying decayed textures, but their application is based on having at least 50% of each city block in one or all of these criteria (Secretariat of the High Council of Urban and Architecture of Iran, 2006).

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According to the master and comprehensive plan studies of Tehran (2006), about 14792 hectares area of this city is unstable areas. These areas covered about 24% of the total area of Tehran and 3268 hectares of these areas have been designated as urban decayed texture. In other words, 6% of the area, 15% of the population, and 22% of Tehran's civil property are located in this area. Over 68% of the total number of properties in this area are under 200 square meters and these parts make up about 14% of the total area of Tehran. According to the Second Five-Year Plan (2014-2019) of Tehran Municipality, the total area of the decayed texture in the district 7 of Tehran was approximately 237 hectares. Most of the decayed texture of the area belongs to zone 1 (85 ha) and Nizamabad neighborhood (33.8 ha). More than half the surface of this neighborhood is decayed and 89% of it is fine-grained texture.

Reintegration of small units with an area below 200 square meters is one of the methods of land reclamation or remodeling in Tehran based on resolution No. 300/310/15301 dated 24/04/2006 of the Supreme Council of Urban and Architecture of Iran and clause 9-5 detailed city rules and regulations have been implemented in the city with numerous incentive mechanisms. One of the most important reasons for using this method in Tehran is the inability to building fine-grained property based on existing building regulations, organic passages networks and structural problems, inaccessibility of access to services, instability against natural hazards (earthquakes, floods, storms), and environmental problems (Fallahzadegan & Asgari, 2010).

Qajar Khosravi (2008), in a study entitled "Urban texture planning with land consolidation approach and GIS", investigated two neighborhoods of Darband in the district 1 of Tehran municipality and the decayed texture of Aligoodarz city. In the Darband neighborhood, the land consolidation program was welcomed by residents due to the high physical problems of the neighborhood and the high cost of land and the economic cost of implementing the project. Nevertheless, the method of combination in the decayed texture of the city of Aligudarz, due to less physical problems and lack of disruption to the daily lives of residents and lack of economic justification for non-state investments, could not alone address all the decayed texture problems of that city.

Doiran (2008) in "Evaluating and Analyzing Intervention Methods in the decayed texture of Islamabad Neighborhood of Zanjan", by examining three methods of consolidation, reconstruction, and concession, concluded that there are successful projects in which direct public participation and there is government assistance.

Azizi and Arasteh (2010), in the study entitled "Evaluation of Successful Integration Plans in the Historical Context of Yazd City - Case Study: Naft and Khatam Residential Complexes" showed that residents of these two residential complexes lived in these complexes satisfied that this indicates the relative success of the project in these residential complexes. While this assessment showed that in the process of implementing these plans, the architecture of these residential complexes was considered, however, less attention is paid to the network access improvement and providing appropriate public spaces needed by residents.

In a study titled "Investigating Barriers to Renovation in decayed Urban Textures with Emphasis on the land consolidation Policy: Jomhori and Eskandari neighborhoods of the district 11 of Tehran," Keshavarz Moghani (2013) concluded that owners' hesitation and delay recovery for decayed textures renovation, especially cumulative renovation, slows and stops this process. He cited reasons for the owners' doubts about the lack of information, the benefits, and costs of renovations, the weakness of social incentives, distrust of government and the municipality and market instability.

Salarpour (2014), in the study entitled "Evaluation of the Effectiveness of house number Integration Method in Renovation of Urban Decay Textures with Residents' Participation - Case Study: Khob Bakht Neighborhood of the District 15 of Tehran" concluded that the consolidation plan for housing renovation in terms of social, economic, and physical criteria. It was not in the line with the characteristics of the neighborhood and its residents, and one of the most important reasons for the lack of proper and successful implementation of this plan is the lack of trust and confidence of the residents in their opinion and presence.

According to these studies, the main disadvantages of implementing of the land consolidation the urban decaying textures in Iran are the more in (physical) approach and the owners do not trust to the municipality, government, and lack of systematic, efficient and effective participation of these three factors in this regard. The main difference between this research and the current literature is that this paper has a systematic pathological view of the whole process of land consolidation in the decayed texture renovation of the Nizamabad neighborhood in Tehran.

1. Study Area

Nizamabad district with 55 hectares is located in zone 1 of the district 7 of Tehran city with 35.8 hectares of declined areas. Nizamabad neighborhood is bounded on the south by Damavand Street and Imam Hussein Square on the east by Imam Ali Highway, on the north and northwest by Shahid Madani Street (Figure.1). The type of data and information of this study is qualitative and quantitative. The respondents of this study including experts and municipal officials, renovation services bureau, real estate consultants and contractors and owners of consolidation lands in Nizamabad neighborhood. The size of respondents of this community is %60 of these experts and %40 owners consolidated lands. The sample size of owners is determined using the Cochran formula with a 95% confidence level. The sampling method for the owners was based on systematically randomized consolidated units. The sampling method of experts and officials was randomly targeted.

Figure. 1: Nezamabad neighborhood location in the district 7 of Tehran Municipality (Source: Authors)

2. Method

The data collection method in this study is the Library Data Collection and survey methods. In terms of the method, an organized questionnaire made to identify the extent to which neighborhood renovation goals have been met, renovation facilities have been met, the unit

number combination satisfaction has been satisfied, renovation service office performance has been improved, and refinement planning and execution priorities improved. Due to lack of appropriate and well-documented data a survey form designed to collect primary data from the landowner, current residents, consultants, and municipal offices. In addition, special attention to the experts, municipality authorities, and owners. After that, the descriptive data of this study analyzed in SPSS software, Chi-Square, and Friedman nonparametric statistical tests and T-test were used depending on the data type, scale of variables and its intended purposes.

The primary data collected from different part in Nezam Abad neighborhood. These data gives us ability to understand the spatial variation of each variable they can be dependent or independent. Therefore, SPSS quantifies the collected data and ArcGIS use to show the visual spatial expansion of different land uses in the district 7. Some of collected data are dependent and to show a clear understanding from the study area we used interpolation by kriging method. To understand spatial expansion land consolidation tendencies in metropolitans with rapid expansion cannot be an effective assessment if the analysis be based on official “government data”. Therefore, in this study statistical and data collected based on survey form for each parcel and those recent cases that got renovation permission and from the municipal office.

3. Principle Policies and Approaches

Land consolidation is one of the methods of land reorganization. The joint development or land reorganization can be an important tool for the development of new land or the reorganization of urban areas (Larsson, 1997). Land readjustment is the mechanism of land reclamation to provide a better plan and to provide the infrastructure needed to sell part of the land. This approach can help solve urbanization problems and overcome problems such as financial weakness, land purchase, coordinated development across the region, public-private partnerships, and land planning and supply in developing countries (Hafiza Binti, 2017). In other words, the government in this way collects different sets of private land in a given area and prepares a plan to use it for the whole area, and provides the infrastructure and services needed (World Bank Group, 2019). In addition to developed countries, this method is commonly used in East Asian countries, such as Japan, the Republic of Korea, Taiwan, India and Australia (Kiyotaka, 2013).

Land consolidation is a way of managing urban land development in which land parcels are integrated into a single design and then re-segmented into a single land parcel which is provided with better facilities (Aliakbari et al., 2010). This method is one of the participatory renovation methods of decayed urban textures (Ahmadi, 2004; Güler et al., 2018). Land consolidation improves the structure and function of the land and improves social equity (He et al., 2019). This method is recommended only when the existing buildings in the urban texture have neither value nor the set of valuable urban elements. Moreover, due to various declined and unsuitable situations they are no longer usable at all. Finally, the discussion is about the property destruction and land consolidation consequences of the city parcel registration. According to the method used in areas where there is no possibility for parcel-to-parcel or single building restoration, for a variety reason (e.g. fine-grained texture) these areas of the city need to integrate several lands into a new bigger piece of land (Hyderentaj, 2007). Land consolidation is the integration of several properties and their documents (Alamzadeh, 2015; Aydın et al., 2018)

Although land consolidation can be considered the opposite of land fragmentation, this method, especially at large and medium scales, will lead to the re-fragmentation of

consolidated land. However, land fragmentation refers to rural areas and the small size, irregular shape, and dispersion of parcels (Alemu et al. 2017) and consolidation has been a solution for land fragmentation (Demetriou, 2016). If this broad process is defined, it is a key step in the development process and involves taking land from the owner; land preparation; planning for streets, open spaces and basic services; developed form planning; split the land into building blocks; delivery of the scheduled form (Golland, 2003). However, this approach can prevent urban renewal by imposing a high price on land or make the process of interaction longer for property owners which are a big barrier to reach to the renovation agreement (Plassmann & Tideman, 2007). Correspondingly, the likelihood of corruption and mistrust of the government can lead to inefficiency in process (O'Flaherty, 1994).

The land consolidation and land rearrangement have some similarities and differences in performance as two land management methods used to regulate inappropriate urban textures. In terms of implementation, these two methods the land rearrangement is more complete and comprehensive in the implementation process and stages and in many stages is more effective than land consolidation. Land consolidation has been in use by the public, urban, and private institutions in Iran for many years, and could be a good basis for implementing land reconfiguration in Iran for better urban planning. It should be noted, however, that due to the intellectual and practical infrastructure involved in land consolidation, land rearrangement does not need to be used purely, but land rearrangement can be used as a successful way to optimize land consolidation. It should be noted that cases where land rearrangement has been more successful than land consolidation. These include engaging the owners and involving them in different stages of the process, planning for needs assessment and providing the necessary services and infrastructure for the desired areas, and performing pre-project financial calculations to ensure the self-sufficiency of land consolidation projects (Esmaeilpour and Mousavi, 2017).

The aggregation of fine-grained land (urban properties) in Iran can be divided into three types the spatial scale of action, the number and levels of stakeholders and related factors are following by:

A. Micro-scale consolidation: This type of land consolidation is usually defined in big cities as encouraging incentives by municipalities. The purpose of the program is to integrate small pieces of land into urban structures, especially problematic ones, to improve and make better use of the space and encourage owners to renovate (Munangi et al., 2019).
B. Medium consolidation (several parts of one block or two blocks integration): This scale of land consolidation is the scale between the micro and macro scales. The private investors or semi-public institutions, such as municipalities, usually involved in such land consolidation.
C. Large consolidation (in more than two or three blocks scale): due to the large scale, usually by the landowners themselves or the private sector (meaning ordinary builders who are more interested to buy real estate and then demolish and build) not executed. This approach is carried out by large construction companies and housing developers in Iran under the supervision of government agencies (Falahzadegan and Asgari, 2010).

Land consolidation in Iran is implemented with various incentives. The most important of these listed tools are in Article 16 of the Housing Production and Supply Act and Article 46 of its Implementing Regulations adopted on 07/02/1388 by the Cabinet of Ministers and Resolution No. 160/1330/13342 dated 12/10/2009 Urban and Rural Municipalities are required by law to regulate at least 50% the costs of licensing duties and permitted floor area ratio of the building in the comprehensive and detailed plans approved for the units subject to this article and to give discount and divide the units without any charge and remaining three-year installment without interest rate until they do 100%. Furthermore,

equivalent to 100% of the discounts on licensing costs and permitted the floor area ratio of the building due to the law and other laws, the Ministry of Housing and Urban Development laws by the Vice President for Strategic Planning and supervision for those discounts due to end of the appropriations under the budget. It is not possible to make payments each year considering appropriations directly as Urban and Rural Municipalities demands in the next year's budget.

According to the resolution No. 160/1330/13342 of 12/010/2008 of the Islamic Council of Tehran, the owners and builders of residential units located in the decayed texture of the city, 100% discount on the cost of licensing (floor area ratio, infrastructure, building violation, safety, and building superintended rights) in the district 7 to 20 and exemption from payment of 80% of the cost of complications (compaction, infrastructure, building violation, safety, and building superintended rights) in the districts 1 to 6, and the districts 21 and 22 of Tehran. The owners and builders of commercial office and industrial buildings will be exempted from paying 50% of the building permit payments in the decayed texture of all areas of the city. In spite of this, the implementation of this method in the city of Tehran has encountered numerous problems and complications, which are due to slow applications and unsuitable qualities. The most important barriers to improve the quality of the fine-grained texture are the cultural and social resilience of the residents and the inefficiency of its management (Prahas, 2009). This method has also encountered resistance from its owners in some parts of Tehran's Nizamabad neighborhood. In this paper, we evaluate the application of this method in consolidating the fine-grained parcels and renovating the decayed texture of the neighborhood.

3.1 Implementation of land consolidation method in renovation of Nezamabad neighborhood

The Nizamabad district has 55 hectares of which 33.8 hectares (60%) are decayed. 18 hectares or 55% of the decayed parts of this fine neighborhood are under 200 square meters. According to the findings of this study, the implementation of the consolidation method in this neighborhood began in 2009 and by 2015 resulted in the consolidation of about 1.8 ha or 10% of the fine-grained parts of this neighborhood. About 309 parcels, or 12% of the decayed parts of this neighborhood, have been renovated individually 192 parcels with a total area of 1.9 hectares have been renovated in 46 projects (Table 1).

Table 1. Area and rate of cumulative renovation of decayed urban texture of Nezamabad neighborhood

55	Area of Nezamabad neighborhood (ha)
19/4	Unstable texture area (ha)
33/8	decayed texture area (ha)
1927	Total number of parcels
980	Number of decayed parts
1711	Number of fine-grained pieces
18	Fine-grained area (ha)
511	Number of renovated parts
5/8	Area of renovated parcels (ha)
309	Number of Individual Renovation Parts
3/9	Individual Renovation Area (ha)
192	Number of consolidated and renovated parts
1/9	Consolidated and renovated area (ha)

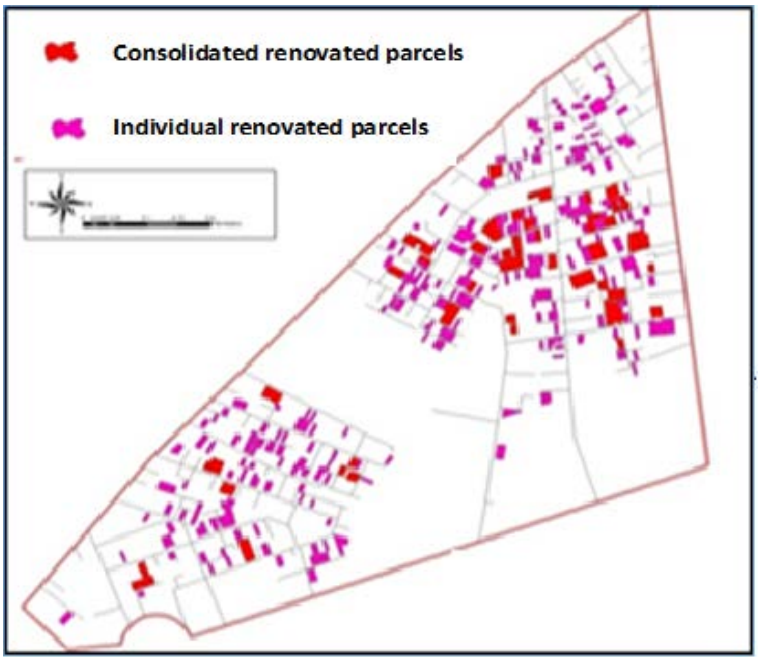

Figure 2. Renovated blocks in Nezamabad neighborhood
Source: Renovation services division office of zone 1 of district 7 municipality of Tehran

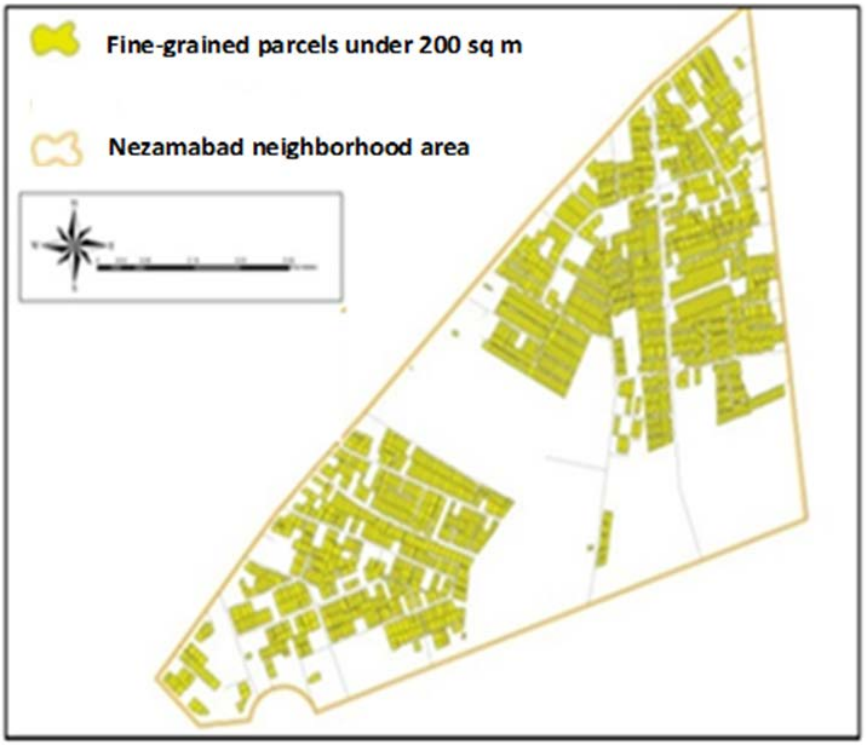

Figure 3. Fine grained parcels in Nezamabad neighborhood (Source: Authors)

4. Findings and Discussion

The consolidation of fine-grained particles in the Nizamabad district was carried out in a multi-center, semi-centralized manner (with the participation of the people and the municipality). The implementation of this approach in this neighborhood has been evaluated in five phases of interaction with residents, participation, implementation, implementation, and operation in this area.

4.1. Stage One: Interact With Residents

Residents' lack of awareness of the benefits of land consolidation to monolith renovation, time and cost, and lack of expert identification of cumulative projects by the Office of Renovation Services, consequent changes, and increased appreciation of the economic value of real estate and lack of financial participation by owners due to economic weakness, Monetization of the property in its present state is one of the most significant damages in this regard and is highly probable (Figure 2).

Table 2. Fine grained land consolidation damage intensity: interact with residents

*Damage intencity	Loss	Subdevisions
2	Lack of landowners information About consolidation Renovations advantages in compare to parcel to parcel or single parcel renovation	Informing the office of renovation services to inform people about the integration and renovation plan
3	Spend time and money on neighborhood renovation services office	Conducting studies and identifying the status of the texture and fragments subject to the plan of consolidation
1	Lack of technical tools	
3	Lack of financial participation of people due to economic weakness	Socio-economic surveys of the neighborhood
3	Employment and monetization of the property in the status quo	
2	Owners Refer to Renovation Services Office	Identify consolidation projects
2	GIS based Identification	
2	Consistent changes in costs	Initial economic estimation
3	Constantly changing owners' opinions	
∗ Damage intensity: minor damage ،(1) moderate damage ،(2) severe damage (3)		

4.2. Stage Two: Partnership

Owners' participation in consolidation renovations in the Nizamabad neighborhood has faced many obstacles and obstacles. The most important of these damages can be the holding of numerous meetings due to the lack of coordination between the owners, the mistrust of the municipality and the greater dependence of the owners on their property (Table 3).

Table 3. Fine grained land consolidation process damage intensity: partnership

*Damage intensity	Loss	Sundevisions
3	Frequent meetings due to lack of coordination between owners	Sending invitations and meeting owners
3	People's mistrust of the municipality	
3	Prolonged process of participation of owners of aggregate plates	Continuous interaction with residents
3	Lack of education and culturalization of apartment living and lack of interest of some homeowners about apartment living	Identifying Agreeing Owners And the opposite
3	Constant change of owners opinions and positions	
3	Owners dependency on their privacy (lack of personal motivation)	
2	Stopping some projects due to the disagreement of some owners	
∗ Damage intensity: minor damage ،(1) moderate damage ،(2) severe damage (3)		

4.3. Stage Three: Implementation Preparations

Preliminary implementation of the fine-grained parcels consolidation method is faced with medium to high damage in the Nizamabad neighborhood. Important disadvantages in this regard are the time taken to the new architecture plan due to constantly change the views of the owners and their personal preferences, the timeliness of getting a building permit due to problems with consolidation documents as well as the long bureaucratic process, legal in some inherited properties, and promise contract document (have not updated) problems. The inherent and dubious reason for the documents and the long time to solve these problems, the prolongation of the investor's economic justification, the lack of understanding between the investor and the owners in terms of both parties 'agreement and the timing of the parties' agreement (Table 4).

Table 4. Fine grained land consolidation process damage intensity: Implementation Preparations

*Damage Intensity	Loss	Subdivisions
2	Being time taking procedure because of homeowners and investors interfere	Architectural mapping
2	Time taking to resolve existing problems in consolidated documents	Obtain a construction permit
2	Long bureaucratic process	
2	Diverse ownership structure	Partition of community ownership documents
2	So many owners in one block and the difficulty of satisfying all them	
2	Long procedure for land documents correction	
2	Long procedure for building violation cases	Investigate construction violations
3	Legal problems arising from inherited lands, written promises properties and time taking procedure for	Solve legal issues of documents
2	Problems Related to Real Estate Dimensions with Dimensions in Documents and Their Registry Problems	
1	Some documents where pawned in the bank and the police office	
2	-	Obtaining a consolidated document
2	No economic justification for investment	Investor identification
2	Insufficient confidence of owners in investor performance and their qualification	Memorandum of Understanding between Owner and Investor
2	Disagreement over share	
2	Lack of understanding between owner and investor in some projects	
3	Long time for owner and investor to reach to an agreement	Contract between owners and investors
2	Disagreement between owners and investors about temporary accommodation	Temporary accommodation of owners
∗ Damage intensity: minor damage ،(1) moderate damage ،(2) severe damage (3)		

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4.5. Stage Four: Implementation

The severity of the injury is medium to high in the implementation of the fine-grained consolidation method in the Nizamabad neighborhood. Damages that are more severe in the neighborhood can be due to the lack of low-interest loan provision, the prolongation, and expiration of executive operations, as well as the use of inappropriate and cheap materials

due to poor oversight of the neighborhood office of renovation services and engineers, neglected and effective the observation. The instability of the housing market, the distrust of homeowners on investors and consultants, the homeowners preferences and the constant shifting views and positions, investors and contractors, and the bureaucracy and prolongation of the whole bureaucratic process are also moderately severe (Table 5)

Table 5. Fine grained land consolidation process damage intensity: Implementation

*damage intensity	Loss	Subdivisions
2	Change of plans due to the opinions of residents, investors and municipalities (applying different preferences and regulations)	architectural, structures, installations map approval
1	Concerns and doubts about payments discounting	Issuance of tolls and taxes
2	Time taking process (approving preliminary and executable plans)	Obtaining a building permit
1	Possibility of contractor and investor tricks	Contractor identification
2	Lack of owner trust in investor and contractor	Contract
2	Prolonged delivery due to residents temporary replacement	Delivery of land to the contractor
2	Slowing down the demolishing process due to the physical limitations of decayed texture of neighborhood	Demolishing operation
2	slowdown construction process due to late removal of old infrastructure, trees, and passages	
1	Expensive materials	
3	Lack of providing the low interest loans	Performance
2	Unitability of materials and housing market	
3	Failure to deliver the projects on time	
3	Using cheap and low-quality materials	Supervision of operations carried out by the local office
∗ Damage intensity: minor damage ‹(1) moderate damage ‹(2) severe damage (3)		

4.6. Stage Five: Operation

Some owners are dissatisfied with the quality of construction of renovated units, disregard for human scale in construction due to economic cost, disagreement and taste in the allocation of residential units, and prolong in the process of obtaining the document from severe damage at this stage (Table 6).

Table 6. Fine grained land consolidation process damage intensity: operation

Damage intensity	Loss	Subdivisions
3	Some owners dissatisfaction with the quality of construction	Delivery of renovated units to owners
2	Poor quality of construction	
3	Neglecting the human scale in construction for more interests	
1	Neglecting the homogeneity criterion in the design of buildings appropriate to adjacent buildings	
2	-	Get the certificate of occupancy
2	Disagreement and preferences in the sharing out residential units	Form of Units Assembly
3	Prolonged process of getting a ownership document	Get a new ownership document
∗ Damage intensity: minor damage ‹(1) moderate damage ‹(2) severe damage (3)		

5. The Role of Facilities in Land Consolidation and Renovation of the Nizamabad Neighborhood

5.1. Experts and Officials Assess the Effectiveness of Renovation Facilities

According to the experts, the priority and rank of the role or influence of the facilities in the integration and renovation of the Nizamabad neighborhood are related to encouraging area floor ratio with a mean of 2.89, parking discount with 2.43 and add freely space in the new building maps (e.g. old passages after consolidation) of 2.31 points. 100% discount on building permit approval fees with a mean of 1.71, repayment of decayed textured loans with a mean of 1.71, a free perspective design with 1.66 and building mortgage payment of 1.26 points are at an average level. The quality assurance of construction and payment of the implementation cost of the facade, with an average of 0.63 points, is poor and undesirable due to non-performance and also indicates the moderate extent of the role of facilities in consolidation (Table 7).

Table 7. Experts opinion on role of encouraging facilities on consolidate fine grained units

Role of facilities %	Asymp. Sig.	Chi-Square	Mean Rank	Mean opinion -0) (3	Criterion	rank
56/5	0/000	159/932	7/74	2/89	Encouraging area floor ratio	1
			6/93	2/43	Provision of discounted parking lot	2
			6/61	2/31	Free attachment of removed previous public space e.g. roads	3
			5/34	1/71	100% discount on building permit	4
			5/11	1/71	Renovation loan payment for declined texture	5
			4/63	1/66	Free perspective map design	6
			4/03	1/26	Housing mortgage payment	7
			2/34	0/63	Building quality insurance	8
			2/26	0/63	Operation of perspective fees	9

5.2. Realization of Renovation Facilities in the Consolidation Process in Owners' Opinion

Table 8 shows that for owners the encouraging land consolidation facilities, parking provision, and attaching previous deleted public space to the new construction map have been well achieved and at a satisfactory level. Renovation loans deductions, free perspective design, and housing mortgage have also been relatively well achieving and are at the moderate level satisfaction. However, perspective design payment and building insurance certificates have not being paid by the authorities and lack of realization, a poor level of effectiveness in fine-grained consolidation and renovation of the Nizamabad neighborhood. Based on these findings, the assignment, and realization of the entire facility committed to aggregated renovation in this neighborhood lack trust and instability.

Table 8. Landowners' opinion on government and municipalities helps on fine grained units

Role of facilities %	Asymp. Sig.	Chi-Square	Mean Rank	Mean opinion (3-0)	Criterion	rank
0/59	0/000	138/704	7/58	2/87	Encouraging area floor ratio	1
			7/00	2/57	Provision of discounted parking lot	2
			6/53	2/40	Free attachment of removed previous public space e.g. roads	3
			5/70	1/93	100% discount on building permit	4
			5/22	1/83	Renovation loan payment for declined texture	5
			4/57	1/73	Free perspective map design	6
			3/87	1/27	Housing mortgage payment	7
			2/33	0/73	Building quality insurance	8
			2/20	0/63	Operation of perspective fees	9

5.3. Contractors And Consultants Opinion on Level of Renovation Facilities Realization In Consolidation Process

According to the contractors and real estate consultants, the highest role of the facilities in the implementation of the aggregation scheme in the Nizamabad neighborhood is due to incentive congestion and the least to the facilitation allowance. The results of Table 9 of the Incentive Density Criterion fulfillment are at a high level because of the added value and economic cost.

Table 9. Level of renovation facilities allocated by municipality and government land consolidation process: contractors and consultants opinion

Role of facilities %	Asymp. Sig.	Chi-Square	Mean Rank	Mean opinion (3-0)	Criterion	rank
0/60	0/000	33/824	8/61	3/00	Encouraging area floor ratio	1
			5/67	2/00	Provision of discounted parking lot	2
			5/61	2/00	Free attachment of removed previous public space e.g. roads	3
			5/56	1/89	100% discount on building permit	4
			4/83	1/67	Renovation loan payment for declined texture	5
			4/28	1/56	Free perspective map design	6
			4/17	1/56	Housing mortgage payment	7
			3/89	1/44	Building quality insurance	8
			1/39	1/00	Operation of perspective fees	9

5.4. Satisfaction of Landowners and Residents of Units' Consolidation

The average rate of satisfaction for homeowners and residents in Nizamabad was 2.40 out of 3. These owners are reluctant to relocate their new units. The reasons for these owners' complete dissatisfaction can be attributed to the lack of proper insulation of the walls and windows due to the low quality and low cost of used materials, lower construction costs. Neighbors also have a little relationship because of cultural differences. Most importantly, the

trust of these residents is low. These residents have little use of the courtyard of their residential complexes and do not feel comfortable. Low stair widths, poor elevator quality, and heating and cooling facilities are other causes of dissatisfaction (Table 10).

Table 10. Landowners and residents satisfaction of land consolidated

Role of facilities %	Asymp. Sig.	Chi-Square	Mean Rank	Mean opinion (3-0)	Criterion	rank
52	0/000	205/881	15/03	2/53	Owners pleased feeling in new units	1
			14/70	2/40	Providing enough parking lot for each units	2
			14/48	2/40	Satisfaction with living in new apartment	3
			13/17	2/33	Transmission of noise pollution from units	4
			11/27	2/20	Willingness to move from neighborhood to building	5
			10/15	1/80	Ease of use of parking	6
			9/78	1/67	Satisfaction of the building architecture	7
			9/73	1/60	Quality of building public spaces maintenance	8
			9/73	1/60	Heating and cooling system satisfaction	9
			8/73	1/53	Satisfaction of building facilities	10
			8/32	1/40	Providing a storage room for each units	11
			8/20	1/40	Quality of construction	12
			6/97	1/40	Suitable lighting for the main spaces	13
			6/73	1/13	Elevator quality	14
			6/33	1/03	Staircase design for moving equipment's	15
			6/30	1/00	Respect the culture of living in apartment	16
			5/80	1/00	Total using of the yard	17
			5/20	0/77	Neighbors' relationships with each other	18
			4/80	0/52	Satisfaction walls and windows insulation of	19

5.5. The Role of the Office of Renovation Services in the Owners' Integration Process

Table 11 shows the average satisfaction (2 of 3) of the owners with the performance of the Nizamabad neighborhood Renovation Services Office (zone 1). Obviously, part of the damage done to this office and the extent of the owners' satisfaction with their performance comes from the functional failures of the municipality and the owners themselves. Some of these are listed in tables 2 to 6. Unfortunately the Nizamabad neighborhood Renovation Services Office, house owners, consultants, contractors, and investors looking for more interest than the effective implementation of the plans. Furthermore, land consolidation in poor urban declined areas and for below middle-class people are so different from the high-income upper-class people. Then, the performance of the renovation office in the Nizamabad neighborhood is by the sense and quality of living in the Nizamabad neighborhood and make more it more affordable for the users.

Table 11. Landowners' opinion on role of Nezamabad neighborhood renovation office in land consolidation process

Role of facilities %	Asymp. Sig.	Chi-Square	Mean Rank	Mean opinion (3-0)	Criterion	rank
75/7	0/005	18/332	4/85	2/50	Frequent interaction with owners	1
			4/37	2/30	Delivering appropriate information	2
			4/02	2/20	Supervision of building quality	3
			3/82	2/10	Consult on building for the homeowners maximum interest	4
			3/82	2/10	Pursuing supervision on all relevant building issues	5
			3/77	2/7	Providing Architectural map by experienced architectural staff	6
			3/37	2/00	Identify a trustable investor	7

6. Conclusion

The most important role of urban renovation mission of decayed fabrics is to create social justice in the city through the fair and equitable distribution of wealth, value-added and opportunities for all citizens to live in the pleasant urban environment. The method of consolidation of fine-grained fragments of these urban textures also serves this purpose. The whole process of renovating and implementing this approach in these contexts requires the full involvement of residents and urban management. The fact is that participation in this particular does not take place spontaneously, from a top-down approach, but requires proper contextualization and urbanization by urban management and transforms it into an internal social dynamic.

In general, fine-grained consolidation in the reconstruction of the decayed texture of the Nizamabad neighborhood in terms of application and procedure was aligned with the characteristics of the residents' and texture of this neighborhood. On the other hand, since consolidation renovation is a social matter, the most important tool for its realization is to build public trust that should be made through promotional and advertisement programs. The findings of this study indicate that this has not been done in the proper way in this neighborhood and that people have not become key players in the whole process of participatory consolidation and renovation. One of the most important reasons for the lack of proper implementation and success of consolidation renovation in this neighborhood is the lack of belief in the necessity of consolidation renovation and the renovation office does not really count on residents' opinions.

Other factors that have hampered the successful implementation of the consolidation renovation of the Nizamabad neighborhood are the lack of institutionalization and institutionalization of the renovation as a sustained trend in the neighborhood. This the way of renovation in this neighborhood which does not follow the Urban Renewal Organization of Tehran (URO) and the Nizamabad renovation services offices.This damage caused the renovation process in this neighborhood have never become a social internal movement and to continue without Tehran Renovation Organization and renovation services offices. Therefore, the Office of Renovation Services, which played the role of an agent for the renovation organization, did not become a joint entity between the organization and its residents. For this reason, the duties and mission of the Office of Renovation Services have been funded, and this position has been challenged by the individual owners of the neighborhood. Obviously, with the approach of these offices being completed, the

renovation process in the neighborhood will also stop. It could be done by identifying and strengthening existing institutions and setting up a neighborhood renovation committee or staff with representatives of neighborhood residents.

Examination of similar studies showed that the implementation of the consolidation method would not be successful in renovating the decayed texture without the participation of the people, the municipality and the government. However, most of these records lack this model and organization of participation. The main reason for the lack of this organization and the inefficiency of participation is the lack of trust in the municipality and the government in this regard. On the other hand, the willingness and participation of homeowners and investors in consolidation of fine-grained fragments has added value to the project. In addition, the main purpose of implementing this method in Iran is not limited to the physical part, but rather to the architectural features and features and not to the development of access networks, public spaces and service infrastructures. This proposal is consistent with the findings and results of this study.

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