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General Architecture

Regeneration-led gentrification: A comparative study of Atabak and Khani-Abad neighborhoods in Tehran

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Abstract

As an emerging concept in urban-related literature, gentrification has focused on the issue of the replacement of social classes in the city from about half a century ago. Following the gentrification process, many people have been forced to leave their place of residence or could afford to live at a higher cost. The gentrification has its roots in the excessive stagnation of inner cities and the creation of a gap in land values and rental rates between the deteriorated neighborhoods and other parts of the city. Such neighborhoods exist in lots of cities in Iran, including Tehran. In some cases, urban regeneration projects and actions contribute to an increase in the demand for housing in these neighborhoods through solving the physical problems of neighborhoods and the significant obstacles underlying their poor quality. The rise in the prices of residential units due to an increase in demand causes the old residents to be displaced. In such cases, urban regeneration will accelerate the gentrification process within the context of deteriorated neighborhoods. The main objective of this research is to investigate the effects of urban regeneration policies on the degree of the gentrification process as well as the impact of this phenomenon on the displacement of long-term residents. To achieve this goal, the qualitative method, particularly the case study method and the statistical description of the data related to the past decade as well as the completion of the questionnaire by residents of Khani-Abad and Atabak neighborhoods has been used, both of which have experienced different levels of regeneration policies and measures. In both neighborhoods, the changes in the number of issued construction permits and land prices were investigated during the 2006-2016 period. According to the population and housing census data of 2016, several residents have been randomly questioned about their residency records. The results show that the symptoms of the gentrification process are more evident in neighborhoods where extensive regeneration interventions and more physical changes are observed.

Keywords: Gentrification; Causes; Outcomes; Regeneration; Displacement.

1. INTRODUCTION

Gentrification has been witnessed and widely discussed since the 1960s. Ruth Glass, a British sociologist, applied the term for the first time, describing socio-economic transformations in the inner-city districts of London. "Once this process of 'gentrification' starts in a district, it goes on rapidly until all or most of the original working-class occupiers are displaced, and the whole social character of the district is changed" [1]. Inventing the expression 'gentrification,' Glass referred to the term 'gentry' and thus linked the development to the separation of social classes as it still existed in Great Britain.

However, the obsolete term was soon replaced by the phrase 'new middle class' [2].

Soon after this first characterization, gentrification attracted much attention as it described a process that was challenging former conceptions of urban social structures, in which the inner city was defined as a residential area of the working class and the outer suburbs as the residential areas of the middle class [3].

This phenomenon implies the replacement of lower-classes/long-term residents by the middle-classes/new-comers in inner-city neighborhoods. Although nearly half a century has passed since the initial introduction of 'gentrification' to the academic and professional societies in Europe and the United States, it is still unrevealed in Iran and has a rough path ahead to become a professional concern. There are physically worn-out neighborhoods in

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many Iranian cities. Because of physical problems, these neighborhoods are mainly residence of those classes who, for various reasons, do not have the tendency or power to switch to neighborhoods with fewer difficulties. In these neighborhoods, along with some social issues, due to the long-term residence or uniform characteristics (e.g., culture, ethnicity, and social class), neighborly relations and social capitals are bold and robust. Another prominent feature of these areas is the proximity to CBD. There are middle and upper classes in these cities which – for various reasons, such as time and cost-saving – are interested in living close to these districts. Residential areas at the margin of CBDs are of high desirability for these people. Physical problems, as well as weak public services and facilities, are two of the essential reasons why middle classes are not attracted to immigrate to these areas. Improving the physical condition of these areas through regeneration projects will lead to an increase in demand for housing, by middle- and upper- classes and will result in rising land prices. The added value of the properties, the gain in the entry of upper economic classes, and the loss of previous social cohesion will gradually cause the low-income groups to lose their ability or desire for living in such neighborhoods. As a result, the long-term residents will immigrate to other areas of the city, which are more relevant to their economic condition. In this way, the neighborhood will lose its previous coherent relations and social capitals.

As a concept that has received numerous and various opinions over the past half-century (documented from 1964 onwards), gentrification is a multi-dimensional topic with its many pros and cons. Diversity of its outcomes has led to the emergence of a range of perspectives, either rejecting and considering it as undesirable or accepting and considering it as desirable.

According to researchers and by reviewing the examples of gentrification, it is observed that gentrification is not so fast a process, such that in some cases, it provides the opportunity to adapt to changes for long-term inhabitants. In contrast, urban regeneration projects and actions contribute to an increase in the demand for housing in these neighborhoods as well as the speed of the gentrification process through solving the physical problems of neighborhoods and the significant obstacles underlying their poor quality. The outcome of this process will be a sharp rise in the cost of housing and rents in addition to the rapid displacement of the long-term residents. This research, have explored the literary history related to the subject of gentrification, the causes, process, and consequences of its occurrence.

The present article seeks to investigate the gentrification in the inner-city neighborhoods of Tehran by processing the literature review. First, we address the recognition of the concept of gentrification from the viewpoint of various theorists; its occurrence stages, positive and negative consequences, and subsequent consequences, and then we examine signs of its occurrence and effects in Khani-Abad and Atabak neighborhoods.

The case studies are located in the 12th and 15th districts of Tehran, which can be named as the central core

of the city and the suburbs. The 12th district is considered as the historical center of Tehran, and the 15th district in the south and southeast of the city is known as the continuation of the central area towards the south-east gate of the city.

The development of the 15th district has begun in the 1960s. In the post-revolution period, two stages of rapid and unplanned expansion can be traced in the early years after the revolution and the under control growth after the 1990s. The primary and continuous character of the district's development has been linked to its marginal and gated position all these years. The central core of the region's growth is from Khorasan Square and Shoosh Street.

The 12th district covers an area of 1600 hectares (3.2% of Tehran's), more than three-fourths of Tehran's Naseri wall (Tehran's historical center). Twenty-seven per cent of the district is more than 400 and 73% of it, is more than 200 years old. More than one-third of the district is worn-out (whether historical or not).

Atabak and Khani-Abad neighborhoods are located in the northeast of the 15th and southeast of the 12th district of Tehran. These neighborhoods have been identified by the Renovation Organization of Tehran as inefficient neighborhoods.

2. LITERATURE REVIEW

Gentrification is a process in which higher-income residents of the city's inner neighborhoods replace low-income families [4] Ruth Glass [1] was the first to use the term to describe the process of displacement of the working class in London. In her studies, Glass introduced gentrification as an aspect of the change in which the working class residents of inner-city neighborhoods of London, like Hampstead and Chelsea, were replaced by middle-class immigrants. According to her, gentrification is associated with improving physical condition, changing the structure of the residence from the tenancy to the possession of the residence and rising housing prices and rental fees [5]. The newcomer middle class has sought to reduce costs and bring revenue sources closer to the neighborhoods. On the other hand, the primary inhabitants of these neighborhoods are always looking at these newcomers as aggressive people, who are not, in fact, a member of their community [6].

Gentrification is a process involving a change in the population of land users such that the new users are of a higher socio-economic status than the previous users, together with an associated change in the built environment through reinvestment in fixed capital. The more significant the difference in socio-economic status, the more noticeable the process, not least because the more influential the new users are, the more marked will be a concomitant change in the built environment [7]. Gentrification is the process of renovation and promotion of neighborhoods which is associated with the influx of upper and middle classes to the inner neighborhoods of the city and the displacement of the poorer inhabitants [8].

Some researchers point out that the occurrence of this phenomenon is the rehabilitation of the working class or

abandoned homes, through housing for middle-class residents or the process of moving higher-income residents into disadvantaged neighborhoods that suffer from lack of investment and attention. The phenomenon of gentrification is also defined as the rebuilding of central districts by middle and upper classes, a concept that affects not only residential sectors but also other commercial and administrative sectors of these areas [9]. In this view, "gentrification is defined as a set of activities to improve housing and the residential environment; A shift in the composition of neighboring units and the replacement of low-income groups by middle and high income, In the central parts of cities"[5].

If the gentrification process in the geographical, physical and economic fields is looked on as an opportunity to improve a region that has already faced the problem of exhaustion and decline, the positive aspect is more prominent. On the other hand, if this phenomenon is considered as the loss of the place of living for low-income groups by higher-income immigrants, the negative aspect is visible [10].

Gentrification is a controversial and multi-faceted phenomenon; the process of this phenomenon decreases and overcomes issues that are unanimous in their unfavorability. It seems that the occurrence of this phenomenon has helped the old neighborhoods from poverty, erosion, crime, and addiction, and many other acute problems. This phenomenon entails vast amounts of capital (human capital of newcomer middle class, new services, and rising land prices) and encourages urban management to provide new public services for the neighborhood. Of course, former low-income residents who are forced to leave due to higher rents and house prices will not use these new services and investments [5].

How gentrification takes place

The origin of the gentrification process is subject to extensive debate. Since Ruth Glass [1] first coined the term gentrification, there have been lots of efforts to elaborate on the causes, context, process, participants, and implications of this phenomenon. Initially, two approaches tried to explain this issue: "economic structuralism," a Marxist view led by Neil Smith [11], and the "Individual independence," a humanistic approach led by David Ley [12] On the one side, gentrification was explained on the grounds of economy, describing the gentrification as initiated by developers and investors. On the other hand, it was based on socio-cultural factors, describing gentrification as started by the development of different lifestyles [13].

According to Smith [14], capital is only returned to the selected parts of the city for the benefit of the rent gap. He portrays the gentrification, different things for different people; a process that will improve the housing and retail economy in neighborhoods through private sector investment. Richard Florida [15], also introduces the exacerbation of gentrification, in direct connection with the increase of wealth.

The rent gap is the difference between potential land rents and fixed rents in the actual housing market. Possible

rent is the amount of rent that can occur if there is the best and highest use of land, and fixed rent of the housing market is the amount of rent that has been designated for the current user, under existing conditions and with the consent of the property owner [16]. In other words, the rent gap is the difference between the current rent in a deteriorated and depreciated area and potential rent if the same area is improved [17].

Smith's economic view, with emphasis on capital and resources, poses many questions without answering. Various characteristics of demand are not taken into consideration and the choice of specific regions of the city, if there are many other areas with similar characteristics, is not covered. The identity of new people, the process by which these people choose a place, and the role of environmental factors are other things that the economic perspective has failed to respond.

Freeman stipulates that education is likely to be better than income to introduce the newcomers because the gentrification pioneers are often young professionals. The humanistic perspective covers the weaknesses of the economic outlook, but it does not retain the financial aspects of gentrification [18].

Until recently, the division between the production and consumption driven explanations dominated the gentrification literature. Put briefly, the former emphasizes the logic of property investment and land values that make a move to the inner city a productive move for the middle class [11]; the latter stressing the cultural consumption preferences of the immigrants that make the inner city an appealing destination for them [12].

The combination of these two approaches in the new perspectives has led to the emergence of two sets of theories; theories of the production explanations (economic Perspective) and consumption explanations (humanistic Perspective). Although both approaches have contributed to the description of the existing artifact and natural structure, their significant difference is that who or what causes the process of gentrification [5].

In drawing on production and consumption explanations, it is important not to represent the two as mutually exclusive or as stark binaries. Gentrification can be both an expression of the changed consumption choices among individual sections of the middle class, and the product of speculative capital and its various institutional agents in creating spaces for the gentrifying middle class [2]. Gentrification in any context must recognize the importance of production and consumption factors, and how they work together to shape neighborhood expressions of class difference [19]. Gentrification is, therefore, a confluence of structure and agency, of production and consumption. Now it can be argued that these definitions and concepts complement each other [5].

The process of gentrification

One of the earliest conceptualizations of how gentrification takes place is the stage model first set out by Clay [20]. Philip Clay's four-step model emphasizes the process of changing the neighborhood. He found that

private investment in the late 1970s took place in all major cities of the United States, especially old neighborhoods that were occupied by the working class. Places that, for some reason, had not been of interest to investors. He describes the various sequences of the phenomenon of gentrification, based on his studies in American cities [21]:

In the first stage (leading actors), individuals in small groups, regardless of the potential risk, enter a declining neighborhood and rectify their facilities at a personal expense. In the second stage, the number of people and their visibility, increase, and renewal at the level of the blocks expand. Still, capital has not come up much, and since vacant homes are scarce, displacement of former inhabitants begins. In the third stage, the process becomes more conscious than before, and goes beyond the limited number of first stage newcomers; the new residents consider housing as a capital asset. At the last stage, the rise in house prices and the rental rate is institutionalized and displacement of the old owners, not just tenants, begins. Besides, with the escalation of this stage, the newcomer middle class (pioneer perpetrators) is also subject to displacement [20].

Clay's model later revised into three 'waves' by Hackworth and Smith [22]. In the first stage, gentrification is led by pioneers who invest in the property of a rundown area through small-scale privately financed renovations carried out by the owners in cheap, dilapidated housing [11]. The renovation is directed by their class taste, and so these early gentrifiers drive up the property's value through the deployment of their cultural capital, commodified in the property [23]. These pioneers are willing to pay the 'risk premium' [24], standing personally to make substantial economic gains if the precedent they set means they help convert an urban environment into a viable, secure location for a middle-class living. This discrepancy between the value of the present land use and its optimal potential use – what Smith terms the rent gap [11] – creates the conditions of affordability for homeowners, as it does in later stages of profitability for developers. The early gentrifiers, therefore, weigh up the gamble of moving to a disinvested area which may not improve over time as expected or will fall short of their expectations, with the potential for a greater financial reward than available through a move to an already established middle-class residential area [25].

The second stage of the gentrification process occurs when the middle-class in-movement is expanded through the interest of small-scale speculators. It is at this stage that some displacement occurs of those long-term residents who, for a range of factors discussed below, are unable to continue living in the area. The area's growing popularity with new residents' sparks media and official interest, leading to urban renewal programs, regeneration projects and more significant scale developers moving in, signaling the area as safe for young, middle-class professionals. These newer residents typically have higher levels of economic capital than their predecessors, meaning they need not invest their sweat equity but can access more expensive restored housing. Housing is now principally a vehicle for investment and tensions rise between new and

long-term residents over how the neighborhood changes to meet the new requirements.

The final stage involves the routinization of the gentrification aesthetic [23] and the arrival of a higher echelon of the middle class. As a result, renters become more displaced, as prices rise further and they can no longer afford to house, as well as some first stage gentrifiers living in owner-occupation who decide to leave, dissatisfied at changes to the neighborhood that occur under this stage of gentrification [26-27].

Results and effects

The process of gentrification can be associated with several consequences. Depending on the respective perception, these effects can be evaluated to have both positive and negative results concerning the development of an urban district. While some authors have shown the negative aspects such as displacement, community conflict, loss of affordable housing, and homelessness, others refer to the positive ones like the renewal of the natural fabric communities, local service improvement, and poverty de-concentration [28-29]. It is essential, however, to consider that the costs or benefits coming from gentrification will depend on which actors are involved [30]; a benefit for a homeowner can be a cost for poorer households [31].

Critiques of gentrification often refer to its impacts on social mixing. Due to the confrontation and mixture of different social groups, concentrations of poverty can be reduced, and as the number of people with a high education increases, the crime rate of the area reduces, which again leads to an improved image of the urban district. Further, because of the influx of people with high incomes, tax revenues increase and enable the municipality to represent its economic interests, e.g., to attract new businesses and firms. Resulting from the increased demand for office and residential space as well as high building and redeveloping activity, costs of living in this area will also increase. As a result, parts of the population, namely older people, the long-established residents, and the pioneers will be displaced as they will not be able to finance the increased costs of living anymore. Thus, the number of affordable accommodation for socially weaker inhabitants declines [21].

Moreover, as a consequence of the rise in interest in the urban district, investment and modernization actions redevelop old buildings and housing stocks, which on one hand enhances the image and the atmosphere of the area, while on the other hand might reduce the historical character of the urban district [5]. Further, the owners of the renovated buildings, due to the increased value of the real estate, can collect higher rents. The local economy is strengthened and stimulated as well, as the so-called 'yuppies' or 'gentrifiers' increasingly use the supply of services of the district [21]. Summing up, gentrification affects the development of an urban district concerning its socio-demographic, economic, and building structure. Depending on the point of view, these consequences can be evaluated as social and economic advantages or

disadvantages.

The dominant view on the issue is that as a result of gentrification, historic housing stock is renovated, inner-city neighborhoods are renewed, and higher tax revenues are generated. Thus, gentrification is seen as a tool for reversing the economic and social decline in the inner city [27]. Therefore, the benefits of gentrification exceed the costs of the process, namely the displacement of working and under-class residents of gentrifying neighborhoods. On the other hand, some opponents of this view argue that displacement is a significant negative consequence of the process, and evaluating benefits as exceeding the costs cause political leaders to underestimate, or even neglect the displaced.

Gentrification's contribution to homelessness and displacement is worth emphasizing. According to Schwirian [32], displacement is 'a central topic' in gentrification. Displacement has always been a significant consequence of gentrification, as well as those with positively evaluated outcomes of gentrification, such as restoration of historic housing stock and rehabilitation of neglected neighborhoods. Rising rents and higher sale prices for homes in gentrifying neighborhoods, and the efforts of non-working class landlords to earn a higher return from their real-estate investments make it impossible for the working-class population to afford the housing in these neighborhoods. Moreover, gentrifying neighborhoods produce higher tax yield than their pre-gentrification period yields, which makes local politicians support gentrification and ignore the displaced working-

class residents' interests [33].

Displacement is probably the most commonly mentioned negative aspect of gentrification. According to some scholars, gentrification implies displacement [34]. Residents can be displaced from their homes directly when they are forced to leave, by exclusion when the prices of the houses go up, by the chain when they follow the trend to leave the neighborhood, and by pressure when residents feel threatened by other neighbors moving out [35, 29]. Moreover, the displacement can also be psychological, when the residents experience the fear of being displaced by being witness to their neighbors leaving, as well as the media coverage of the process [28].

The commercial structure of a neighborhood can also be affected by displacement. As gentrification develops, local businesses are replaced by new shops that try to supply the new middle-class residents with a different taste [36].

It can be argued that gentrification is like a double-edged sword; it can provide many desires for space, revive it, and, at the same time, have devastating effects on small indigenous communities and businesses (Table 1). As the rent gap theory predicts, one of the most apparent effects of the phenomenon is the change in the necessary infrastructure of the neighborhood. Areas exposed to the phenomenon are generally worn out and old; however, such neighborhoods have capacities that are potentially very attractive for the arrival of middle-class immigrants [2].

Table 1 Positive and Negative Consequences of gentrification [21, 37]

Positive outcomes	Negative consequences
Increased incentives for owners to improve their construction status	The displacement of the lower classes of the neighborhood following a rise in prices
Reduce crimes	Psychological and mental effects of displacement
Stabilization and improvement of the physical condition of the worn-out areas	The anger and distrust of the social strata of the community towards both local and national governance
Increased property value	Reducing affordable housing
Increasing the purchasing power of local retail consumers	Unsustainable and speculative increasing in prices
Reduce the rate of vacancy and lack of use of the building	Homelessness
Increased local revenues	An increased collision between investors and local rulers
Encouraging and increasing the likelihood of continued development in the neighborhood	Commercial / Industrial gentrification
Reduce pressure on local infrastructure and services	Increased costs due to changes in local services
Suburban dispersal decline	Relocation and increasing demand for housing in marginalized neighborhoods
Increased social mix	The loss of social diversity (from heterogeneous communities to wealthy ghettos)
Restitution of assets (with or without local support)	Losing the old population and being occupied by new groups

Regeneration-led gentrification

More than ever before, gentrification is incorporated into public policy—used either as a justification to obey market forces and private sector entrepreneurialism or as a

tool to direct market processes in the hopes of restructuring urban landscapes in a slightly more benevolent fashion [38]. Smith argues that once the sporadic, quaint process of gentrification has become a major tool of urban policy [27]. Reinvented as 'urban

regeneration,' gentrification is highly supported by corporate and state powers in Europe and North America and aimed at 'bringing people back into the cities'. In this last wave of gentrification, in what Hackworth refers to as 'generalized gentrification,' the cooperation of state and corporate powers to suppress community efforts against gentrification.

After studying the gentrification process in Bilbao (Spain), Vicario and Martinez conclude that one of the effects of urban regeneration policies proposed to restore the structure of central districts can be the gentrification of the deteriorated neighborhoods. The Bilbao experience highlights the importance of local government in facing potential neighborhoods subject to gentrification [39].

According to Roberts and Sykes, regeneration is a process that leads to the creation of new urban spaces by preserving the main spatial characteristics; a comprehensive and integrated view of a set of measures that will solve urban problems [40].

Existing literature on the effects of urban regeneration on urban areas is divided into two groups; the first group considers these effects positive because of the replacement of the poor people by the middle classes. The second group believes that the results are negative for social reasons. The first category seeks to stimulate economic growth in the urban areas and encourage prosperous people to settle in the worn-out modernized regions; this is done through the improvement of the physical environment. This group argues that the benefits of economic growth will gradually shift from the regenerated environment to the lower classes, which are the old inhabitants of the deteriorated regions. On the other hand, the second group argues that the opportunities and resources should be directly available to deprived people [27].

Referring to the positive effects of urban regeneration and sustainability, while avoiding the class nature of related processes and neutralizing the negative image of the gentrification process [21], politicians try to hide the effects of displacement of inhabitants and social segregation of neighborhoods. On the contrary, they rely on the benefits of Organizing neighborhoods and diversity in the focus of poverty [41].

Lees et al., Slater, Smith, Wyly, and Atkinson, without referring to "regeneration", concluded that through eliminating the physical inefficiency of neighborhoods, physical interventions along with the arrival of capital, create demand for housing in the neighborhood, through a broader range of families [2,5,21,31,42-44]. An increase in need, and consequently land prices and rentals, causes the displacement of a lower class that previously had chosen the neighborhood because of low prices. Based on the results of these studies, the intensity and size of interventions have a direct correlation with the rate of progression of gentrification in worn-out areas.

In the following, the extent of the progress of gentrification in the inefficient neighborhoods of Tehran, which was the basis for systematic interventions, namely, regeneration measures, and the relationship between the plurality and severity of standards and regeneration

policies with the onset of gentrification, are examined.

3. METHODOLOGY

A qualitative approach has been chosen to investigate the process of gentrification in case studies, in terms of subject integration with social sciences, "to provide illumination and understanding of complex psychosocial issues... humanistic 'how' and 'why' questions" [45].

To investigate the impact of regeneration policies and measures on gentrification, as proceedings aimed at solving the problems of deteriorated neighborhoods, Case study methodology has been chosen.

The case study methodology is meant to provide the researcher with the opportunity to pursue information until saturation is reached—enough information to make some quite reasonable conclusions about that particular case. Yin describes the scope of a case study as "an empirical inquiry that investigates a contemporary phenomenon in-depth and within its real-life context, especially when the boundaries between phenomenon and context are not evident [46]."

In qualitative studies, descriptive statistics are used as a tool to introduce the case study, but in this approach, inferential statistics are not used, because the most use of inferential statistics is to generalize the results from the sample to the community and to find statistical significance of the relationships among the variables. However, in a qualitative approach, researchers are not seeking to generalize the results of the case study to society, and it is vital to get a better understanding of the phenomenon and to identify the active factors on it more than the generalization of the results to the whole statistical community. The study of the magnitude of this effect and the finding of meaningful statistical relationships among them is another task that can be considered in separate quantitative studies. In other words, qualitative studies are about being or not, as well as how to be, and in quantitative studies, are about number and value.

To know the characteristics of case studies and to collect the required information, using the questionnaire and photography technique, information is obtained, and the method of collecting required statistics and data is in the form of library, documentary, and field.

In this research, a systematic method for communicating and obtaining the views of residents has been used so that a residential unit is questioned using cluster sampling from each of the seven neighboring residential units. Cluster sampling compared to random sampling leads to more precise results (with lower cost). The interviewer started from the beginning of each street and assigned the first number, and then referred to all parts with number 7 (sometimes a lower number or higher). Questionnaires were delivered to the residents with explanation and gathered the day after. Concerning the neighborhood population and using Cochran method, 600 questionnaires were distributed in Atabak neighborhood, 360 of which were completed and received. In Khani-Abad neighborhood, 400 questionnaires were distributed,

and 245 of them were received.

Regarding the formulation of the problem and the methodology of the research, it is necessary to examine the intervening and influencing policies on the occurrence or non-occurrence of the gentrification, using the case study method. This approach is based on two axes, "analysis of the content of policies and Plans" and "analysis of the implications of policies and plans." Affected areas, at different stages of the process of review, from non-occurrence to relative occurrence, are chosen to assess the extent of the positive and Negative effects of policies. Hence, in the first step, the city of Tehran has been selected as a significant subject of the research. In the second step, according to the Phenomenon, the inner city of Tehran has been identified as residential areas that comprise the deteriorated neighborhoods of the city. Finally, in the third step, the target areas have been selected at two levels of occurrence, from the preliminary stages to relative occurrence. The useful indicators are severe inefficiency, the existence of policies and plans for regeneration, the high proportion of rental to owner-occupied properties and the gap between the growth of land prices and rental rates in comparison with the average growth throughout Tehran.

To select a gentrifying neighborhood as one of the case studies, some neighborhoods which have endured the most regeneration policies and measures were identified through some semi-structured interviews with Experts of Tehran Municipality Renovation Organization among the deteriorated neighborhoods of Tehran. Accordingly, Atabak, Nazi Abad, Harandi, Cyrus, Oudlajān, and Sanglādī neighborhoods were notified as to the potential cases from the list of preliminary assumptions. In the second stage, the study of the plurality and severity of regeneration measures carried out in the above neighborhoods. The study of demographic changes of these neighborhoods on the general population censuses of 1996, 2006, 2011 and 2016 clarified the adaptation of the population changes trends and mega-scale projects of urban management in Atabak neighborhood. This neighborhood was selected by Tehran Renovation Organization in the 1990s as a sample area in Tehran to apply and even test urban regeneration policies. Besides, the continuation of Imam Ali highway from the heart of the neighborhood in the 2000s, as well as a sharp decline in the population in the first half of the 1990s and its sharp increase over the 2006-2016 period, suggested Atabak neighborhood as the most feasible option for the gentrification process. However, to increase certainty about the phenomenon of gentrification, the preliminary evidence was examined in the field survey. At this stage, confirmation of the presence of new houses in the vicinity of worn-out houses, the existence of low-income families and the presence of relatively expensive cars in the neighborhood in comparison with other neighborhoods, indicate the signs of gentrification.

On the other hand, to identify the deteriorated neighborhood that has so far resisted the gentrification

process, five neighborhoods from the central districts of Tehran were identified, and the regeneration plans prepared for them were investigated. Among the Bagh-e-Azari Pamenar, Khani-Abad, Monirieh and Javadie neighborhoods, Khani-Abad and Javadie were affected by the highest number of regeneration plans. However, the least change in population among the above neighborhoods during the 1996 to 2016 period was for to Khani-Abad district. Also, the preliminary study of the neighborhood field showed that there were no initial signs of the gentrification such as the construction boom, the existence of new houses with good quality in the vicinity of the old and unstable dwellings and the lack of strong social interactions in the neighborhood. According to the above explanations, Khani-Abad neighborhood has been selected as a neighborhood that, despite the regeneration policies is not gentrified yet.

Accordingly, considering the statistical data and regeneration plans prepared for the deteriorated neighborhoods of the city, the study area concerning the preliminary stages of the gentrification process, is Khani-Abad district, and the study area in connection with gentrification is Atabak neighborhood. In order to understand the process of gentrification, the regeneration measures in the case studies were reviewed, then the manner of occurrence of physical changes in 10 years (i.e., 2006 to 2016) as well as the price changes as the most significant signs of the phenomenon of gentrification (Smith, 1996) was studied. Finally, to realize the extent of gentrification effects on the neighborhood characteristics, the severity of displacement of the residents is estimated.

4. CASE STUDY

4.1. Khani-Abad neighborhood

As one of the historic neighborhoods of Tehran, Khani-Abad is located in the southwest side of the 12th district of Tehran. According to the statistics, about 85% of the residents of the neighborhood are immigrants. In the last half-century, they have immigrated to the area from the northwest cities of Iran (Diargah Engineering Consultants, 2009). One of the most critical problems in the neighborhood is the small size of the housing lots, as 84% of them have an area of less than 100 square meters. This factor, along with the problem of the non-availability of car access to residential parts, has led to the construction stagnation, despite the encouraging policies of approved regeneration documents. Nearly 3% of the existing buildings are new, and on the other hand, more than 85% of the buildings are over 40 years old [47].

A review of the spatial organization of Khani-Abad neighborhood in the immediate area reveals that this area is located in the mixed zone of Tehran CBD. The streets around the neighborhood, such as Takhti, Mokhtari, Hamdollahi-e-Akram, Vahdat-e-Eslami, and Khayyam, have been operating on the mainstream market in Tehran.



Fig. 1 Khani-Abad spatial organization

The area of this neighborhood is about 12 hectares. The general censuses of 1996 to 2006 show that the population of the neighborhood has decreased compared to the population of the 12th district and the city of Tehran.

However, in the 2006-2011 and 2011-2016 periods, its growth rate exceeded the 12th district and still is less than Tehran.

Table 2 Population growth rate in Khani-Abad, 12th district, and Tehran

	1996	2006	2011	2016			
	Population	Population	Growth rate	Population	Growth rate	Population	Growth rate
Khani-Abad	2921	2843	-0.3	2894	0.4	2975	0.6
12 th district	189625	248048	0.3	240720	-0.2	241831	0.08
Tehran	6758845	7803883	1.4	8154051	0.9	8693706	1.3

Statistical Center of Iran

Apart from the rules and regulations of the comprehensive plan (2007) and the detailed policy (2012) of Tehran, generally include all the worn-out areas of the city, Khani-Abad is affected by two documents: 1) The

urban landscape regeneration of Khani-Abad (Diargah Engineering Consultants, 2009), and 2) Takhti neighborhood development (Takhti Neighborhood Reconstruction Office, 2014).

Table 3 Local government regeneration policies and measures in Khani-Abad neighborhood

Title	Preparation year	Supplier institution	Level	Output
Tehran City Master Plan	2007	Tehran's comprehensive and detailed plans supplier institution	Tehran and its suburbs	- Access hierarchy - Zoning - Topical and thematic projects
The development pattern of the 12 th district of Tehran	2003	Tehran's comprehensive and detailed plans supplier institution	12th District of Tehran	- The proposed spatial organization

A comprehensive program of the 12 th district of Tehran	2012	Tehran's comprehensive and detailed plans supplier institution	12th District of Tehran	<ul style="list-style-type: none"> - Network Sequence and street widths - zoning - Topical and thematic development catalytic projects - Regeneration policies for worn-out neighborhoods
Khani-Abad neighborhood urban landscape design	2009	Tehran Municipality Renovation Organization	Khani Abad neighborhood	<ul style="list-style-type: none"> - The proposed spatial organization of the neighborhood - Proposed land-use - Regeneration policies - Spatial design
Takhti neighborhood development document	2014	Office of Takhti neighborhood regeneration	Takhti neighborhood	<ul style="list-style-type: none"> - Development catalytic projects

In particular, Khani-Abad neighborhood urban landscape design focuses on the renovation of the neighborhood regardless of financial resources and investments and has taken the "Land Readjustment approach" into account (Fig. 1). On the other hand, the Takhti neighborhood development document has focused on the implementation of several individual public parking lots as catalytic projects at the neighborhood level. A field

study of the status of the neighborhood (2017) in comparison with the proposals of the documents above, suggests slight changes within it. Regardless of the mechanism of implementation and monitoring of these plans, the limited amount of changes in the neighborhood justifies the small effect of these documents on the inflow of capital into the neighborhood and the evolution of its physical infrastructure.



Fig. 2 Khani-Abad neighborhood urban landscape design

The low tendency to invest in the neighborhood (i.e., the 3% share of the newly constructed buildings) and the lack of attractiveness of the neighborhood as a destination for immigration (i.e., especially for the middle class) indicate that the current situation is not conducive to the gentrification process. However, it can be seen from the aggregation of residential units and much higher prices of

new residential units than the average of the neighborhood and surrounding districts. The comparative study of the number of construction permits issued during the period from 2006 to 2016 in Tehran, 12th District, and Khani-Abad neighborhood, declare the lower demand for investors in the neighborhood compared to the region and the city.

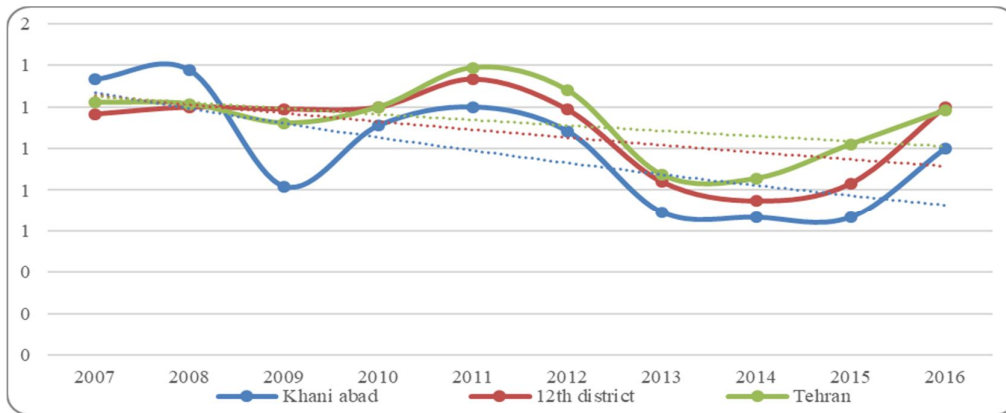


Chart 1 Changes in the number of construction permits issued in Khani-Abad, 12th District and Tehran [48]

On the other hand, the study of residential land price changes during this decade (2006-2016) indicates lower changes in this neighborhood compared to Tehran and the 12th district. Chart 2 shows that the neighborhood has lagged the land-price increase process in Tehran and that

the pace of land prices has fallen during the last decade, compared to the 12th district. The low return on investment (ROI) in the neighborhood justifies the lack of renovation and restructuring projects by the private sector.

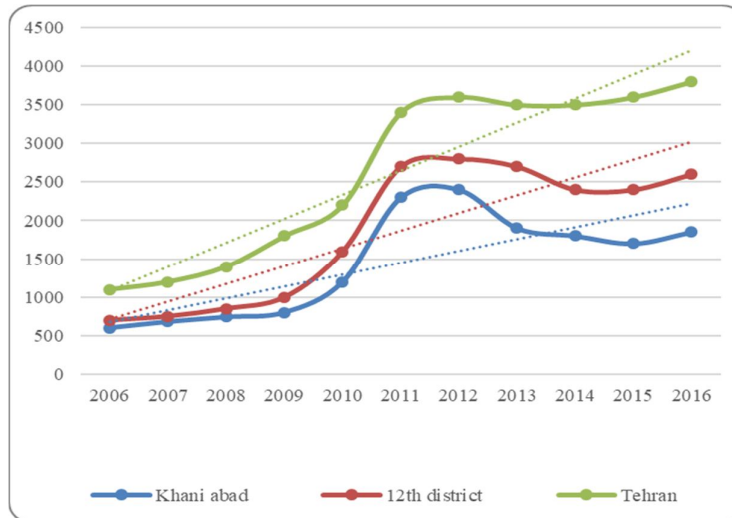


Chart 2 Price changes per square meter of residential property in Khani-Abad, 12th District and Tehran [49]

II. Atabak Neighborhood

Atabak neighborhood is located in the north-west of the 15th district of Tehran. This neighborhood is limited to the streets of Mallayeri (North), Derakhshanno (South), Imam Ali highway (West), and Khob-Bakht (East). Apart from the general regeneration rules, the comprehensive plan (2007) and the detailed plan (2012), this neighborhood has been subject to many regeneration measures since 2000, such as: the ownership plan of the eastern lands of Shahid Khob-Bakht (2003), the project of Imam Ali highway, (2005), the urban landscape design of Imam Ali district (2006).

Atabak neighborhood is located in the residential areas of the south-eastern margin of the Tehran CBD. Khavaran St., along with the Shoosh St., link the neighborhood to the city center. This neighborhood is connected to the northern and southern regions of the city through Imam Ali highway. Besides, the highways of Khavaran and Ahang support the connectivity of the neighborhood to the eastern areas and the south-east gate of the city. The Be'sat highway, situated in the south of the neighborhood, has the duty of connecting it and its immediate peripheries to the western regions of the city.

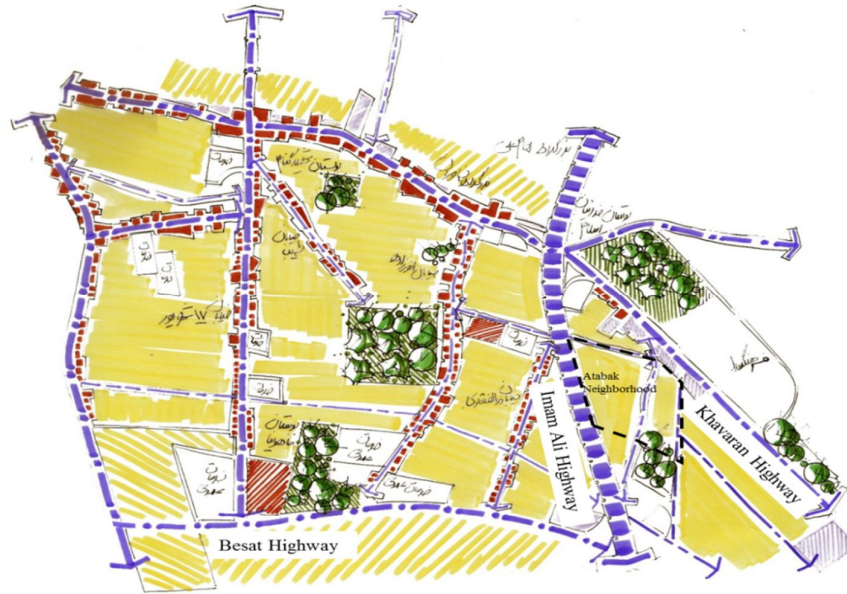


Fig. 3 Atabak spatial organization

Due to the forced evictions of some residents of the neighborhood in the '90s, the population of Atabak neighborhood, decreased at a growth rate of -7.3% from 1996 to 2006. The arrival of the pioneer gentrifiers after completion of housing projects in the late '90s, the growth

rate of the neighborhood exceeded the Tehran city and the 15th district, and this trend continued with the development of construction in the neighborhood and attracting more population by 2016.

Table 4 Population growth rate in Atabak, 15th district, and Tehran

	1996	2006		2011		2016	
	Population	Population	Growth rate	Population	Growth rate	Population	Growth rate
Atabak	12000	5600	-7.3	7254	5.3	9673	5.92
15 th district	622517	644259	0.3	638740	-0.2	641279	0.08
Tehran	6758845	7803883	1.4	8154051	0.9	8693706	1.3

The intervention of the Tehran municipality in Atabak neighborhood started in 2001. Based on the "Continuation of the East Highway" project, in this year, the municipality took ownership of the parts on the fringes of the Khob-Bakht St. During the 2001-2002 years, about 165 plots were purchased according to the plan. In 2003, the detailed plan consultant of the region proposed redirection of the highway from the Khob-Bakht St. to the current route. The primary justification for this proposal was the use of

highway capacity to rebuild the rusty texture of the area. After the approval of the plan in 2003, the Renovation Organization, as the executive, took ownership of the project through attracting financial resources. In 2005, the program was undergoing significant changes. The first urban landscape project prepared by Tehran Modernization Organization is the Khob-Bakht neighborhood plan [50].

Table 5 Urban governance regeneration measures in Atabak neighborhood

Title	Preparation year	Supplier institution	Level	Output
Tehran City Master Plan	2007	Tehran's comprehensive and detailed plans supplier institution	Tehran and its regions	- Access hierarchy - Zoning - Topical and thematic projects
The development pattern of the 15 th district of Tehran	2003	Tehran's comprehensive and detailed plans	15 th District of Tehran	- The proposed spatial organization

A thorough plan of the 15 th district of Tehran	2012	supplier institution Establishment organization of detailed projects of the city of Tehran	15 th District of Tehran	<ul style="list-style-type: none"> - Network Sequence and street widths - Zoning - Topical and thematic development catalytic projects - Regeneration policies for worn-out neighborhoods
Eats of Khob-Bakht St land acquisition plan	2003	Municipality of the 15th district of Tehran	Atabak neighborhood	<ul style="list-style-type: none"> - Owning parts located within the Khob-Bakht St
West of Imam Ali HW land acquisition plan	2005	Tehran municipality	15 th District of Tehran	<ul style="list-style-type: none"> - Owning parts situated in Imam Ali highway
Imam Ali region's Special Renovation Project	2005	Renovation Organization of Tehran Municipality	Neighborhoods of Imam Ali district	<ul style="list-style-type: none"> - Proposed spatial organization and land use of the neighborhoods of Imam Ali district
Urban landscape design of Khob-Bakht neighborhood	2006	Renovation Organization of Tehran Municipality	Atabak neighborhood	<ul style="list-style-type: none"> - The proposed spatial organization of the neighborhood - Proposed land use - Regeneration policies - Spatial design

The Urban Landscape plan of the Khob-Bakht neighborhood (2006) has attempted to create the necessary ground for the development of the roads and the creation of services and open spaces in urban areas by reducing the occupancy level of residential use. According to the plan,

the number of residential and commercial units in the neighborhood, which was close to 1,500 before the commencement of the rehabilitation process, will be converted to 180 newly-built residential blocks [51].



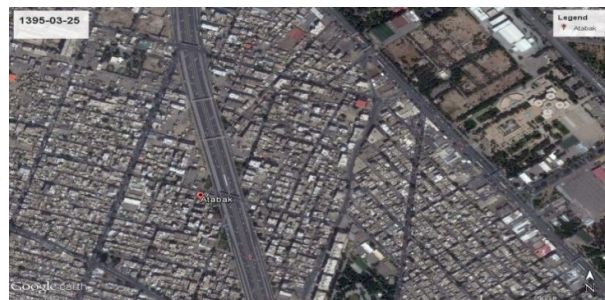
1999-Neighborhood density and extreme small plots - The absence of signs of initiation of interventions



2007 - Ownership and destruction of small plots within the neighborhood by the encouragement of the local governance



2012 - Destruction and fragmentation of neighborhood tissue by Imam Ali Highway



2016 - Completion of housing construction projects as well as Imam Ali Highway

Fig. 3 Atabak changes during the years 1999 to 2016

The existence of the worn-out buildings or vacant lands (i.e., as a result of the demolition of buildings) has led to the formation of insecure hangouts in the neighborhood, which has created a suitable field for the emergence of addiction and degradation. Despite the interest of residents in fleeing the neighborhood and the immigration of many people to other neighborhoods, the interesting point is the tendency of investors and applicants to enter this neighborhood. The study of the number of construction permits issued in the period from 2006 to 2016 indicates the relative growth in their number during the 2009-2013 period as well as the year 2016. Due to the 14 hectares' area of Atabak neighborhood, from 2006 to 2016, 3.8 hectares of houses are built newly with a maximum age of 10 years. (i.e., 27% of the total area of the neighborhood). From 2006 to 2011, 140 pieces were constructed or

renovated. The focus was on construction in the eastern part, and the total development during these years was 20,500 square meters. From 2011 to 2016, 65 pieces were constructed and renovated. During this period, the focus of construction was on the central and eastern parts of the neighborhood, most of the mentioned regeneration projects emerged, and the total construction was 17,200 square meters. Considering the issued construction permits, after taking into account the regional and national economic conditions, indicates that their growth rate is much higher than that of the 15th district and the entire city of Tehran. Thus, the growth rate of construction permits in the year 2010 was exceeded Tehran, and in the year 2011 exceeded the 15th district, which suggests the greater willingness of investors to attend the neighborhood and hence higher returns on investment.

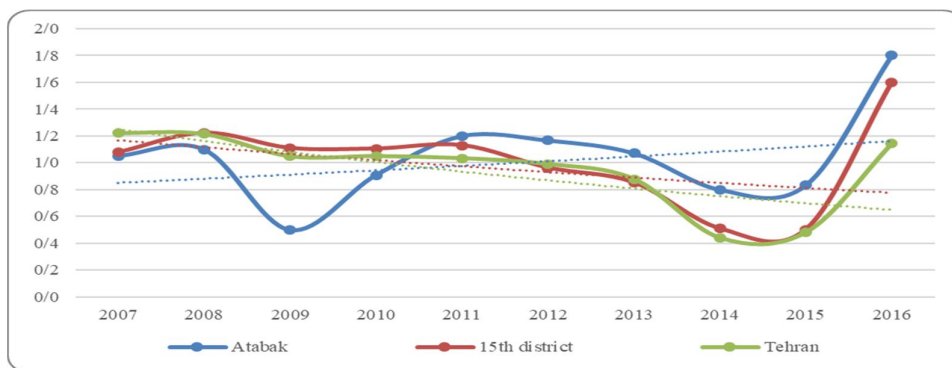


Chart 3 Changes in the number of construction permits issued in Atabak, 15th District and Tehran [48]

Comparison of the land price changes in Atabak, 15th district and Tehran city shows that the average land price since 2009 together with the intensification of physical changes in the neighborhood has exceeded 15th district and

since 2011, the whole city of Tehran. The interest of investors in this neighborhood and the higher profitability of construction can now be justified.

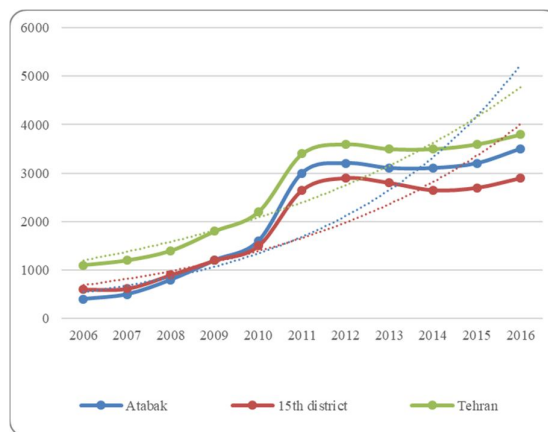


Chart 4 Price changes per square meter of residential property in Atabak, 15th District and Tehran [49]

As explained above, displacement (i.e., the forced departure of residents from their homes) is recognized as the most critical and controversial outcome of the gentrification process. In this process, low-income residents will inevitably leave their old neighborhoods because of the sudden rise in property prices and rentals.

Given the generally long interval of the gentrification process, the calculation of the number of households who have left their homes obliged is a very complicated and sensitive, if not impossible, process. The data used for the calculation of this index for Atabak and Khani-Abad districts were somewhat possible. These data included the

statistical blocks of the official censuses of the years 2006 and 2016 and the results of the residents' questionnaire on the length of residence in the neighborhood.

According to the official data of the Population and Housing Census, the population of Atabak neighborhood in 2006 was 11745 and in 2016 was 9254. The household number of this neighborhood in 2006 was 3670 and in 2016 was 2395. Based on the questionnaires, in 2016, the number of older households with a residence history of more than ten years (i.e., households who lived in Atabak neighborhood during both censuses) was 1304. Therefore, it can be concluded that nearly 36% of the old Atabak residents still reside in the neighborhood, and over 64% of the residents of the area have been displaced from this neighborhood.

In Khani-Abad district, the population in 2006 was 2756 and in 2016 was 3,532. The household number in this neighborhood in 2006 was 811 and in 2016 was 1,177. In 2106, the number of older households with a residence history of more than ten years who lived in the two censuses of Khani-Abad neighborhood was 685 families based on questionnaires. Therefore, it can be concluded that more than 78% of the old Khani-Abad residents still live in the neighborhood, and less than 22% of the residents of the neighborhood have left this neighborhood.

5. CONCLUSION

In this research, two neighborhoods from central districts of Tehran were investigated with two different situations in terms of urban regeneration, namely Khani-Abad neighborhood in the 12th district and Atabak neighborhood in the 15th district of Tehran. Both of these neighborhoods are considered as deteriorated neighborhoods in Tehran inner city according to the upstream documents such as the comprehensive and detailed plans. However, in the previous decade, Atabak neighborhood was chosen as the leading district for implementing urban regeneration policies. In addition to joint "urban landscape" projects that were prepared for most of the worn-out neighborhoods, including Khani-Abad, Atabak has been subject to many regeneration projects such as the possession of residential plots to aggregate them, the construction of residential projects with public subsidies and the development of Imam Ali highway as one of the south-to-north linkage structures.

A comparative study of the two case studies suggests that signs of the gentrification process can be observed in both neighborhoods, with the difference that the symptoms and the rate of progress are more evident in Atabak neighborhood. The comparison between the growths in the number of construction permits issued in the two neighborhoods makes clear that the degree of increase or decrease in issuing construction permits between 2006 and 2011 both follows a similar trend and is close to each other. However, between 2011 and 2015, there is a significant increase in the number of construction permits issued in Atabak neighborhood. This growth reached its peak in 2016.

The comparison between the land price changes in the two neighborhoods in question indicates that the price of

land is close in both areas, till 2008. Between 2008 and 2011, despite the proximity of land prices in both neighborhoods, there is a further increase in Atabak neighborhood. Since 2011, however, the distance between the two neighborhoods increased every year and peaked in 2016 (more than 15 million IR.RLS per square meters of residential land).

A review of the evidence suggests that rapid gentrification process has taken place in Atabak neighborhood and continues. The expulsion of the old residents from this neighborhood has taken place in two stages. In the first stage, the removal from urban management to carry out large-scale residential projects has led to the displacement of the inhabitants. In the second stage, the rise in property prices and rents have caused the displacement of the long-term inhabitants of the neighborhood following the intensification of immigration into the neighborhood (i.e., increasing demand) and the lack of affordable houses.

In Khani-Abad neighborhood, displacement has not been so high that newcomers become more than the long-term residents. However, there are signs of the gentrification process at a much lower speed than Atabak neighborhood.

In recent years, despite the high desirability of its subject, the regeneration process of the worn-out neighborhoods of Iranian cities does not take the economic and social consequences of the various aspects into account and destroy the social structure of the long-term inhabitants of these neighborhoods. Examples of this kind of interference can be found in neighborhoods of desert cities that are gradually losing natural populations and even vernacular activities.

This paper has tried to introduce the importance of paying attention to this phenomenon in the field of urban, social, and economic sciences as a research and professional concern to recognize the various dimensions of gentrification. Ultimately, the quality of its occurrence and consequences has been investigated in Khani-Abad and Atabak, two neighborhoods of Tehran.

Based on the findings of this study, in general, the origins of the phenomenon of gentrification can be sought in the region's excessive recession and the creation of a gap in the land value and rents between the neighborhoods and other parts of the city. Therefore, the gap between costs and rents can be cited as the reason for the occurrence of this phenomenon, and the neighborhoods that have met this gap have been considered to be the likely basis of its existence. On the other hand, the implementation of regeneration projects by addressing the physical dilemmas of these worn-out neighborhoods will act as catalyst projects for the occurrence of the phenomenon and will contribute to its occurrence with all its positive and negative consequences.

The comparison of Atabak and Khani-Abad as neighborhoods that both have been prone to gentrification process, based on factors such as location and the gap between land prices and rents, indicates that, in the neighborhood with more evident and objective regeneration activities over the past decade (i.e., Atabak),

private sector investment, as well as land price growth, are more severe. Evidence suggests that the gentrification of this neighborhood is faster and more widespread than the neighborhood where regeneration measures are more limited (i.e., Khani-Abad).

If the urban regeneration aims at the development of justice and equality, and if the processes of renewal, revival, and rehabilitation seek to support those who live in neighborhoods, the private- and public- sector investors and decision-makers should also consider the adverse outcomes of their investments and actions, and seek to resolve them.

The fact that some studies show that some old working-class residents would rather stay in the neighborhood than leave it allows a whole new window of knowledge for investigation. More than just the process is good or bad; there is the possibility to study these interactions, and how gentrification is experienced between two different groups in the same neighborhood. Moreover, it allows scholars to explore perceptions, image, and the use of space from the perspective of gentrification.

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