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Socio-Economic Aspects Influencing the Formation of Low-Cost Housing Architecture after Iran's Islamic Revolution

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ABSTRACT

housing sector can be considered one of the most important parts of development in a society. In addition, the most important influencing factor in a person's level of satisfaction with living in an area is housing and its environmental conditions. Affordable housing was used globally as one of the international models after World War II, and its purpose is to create affordable housing for low-income social classes. The purpose of the current research is to investigate the economic and social aspects of cheap housing after the Islamic Revolution period from 1979 until now. The method of collecting information is a documentary and library method. The research method of the current research is analytical and practical in purpose. In addition to that, it can also be mentioned that it is a developmental type. The method of collecting information is a documentary and library method. In this research, the main concepts such as housing, low-cost housing, low-cost residential architecture, as well as the economic and social aspects of housing are discussed, and the concavity of the concepts is discussed using the content analysis method and using the research framework and parallel surveys. Finally, after summarizing the main materials, the economic and social aspects can be examined in the period after the Islamic Revolution and the specific results can be explained.

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INTRODUCTION

The different patterns shaping the contemporary residential architecture reflect the deep social, cultural and economic roots in it. The house is one of the basic components in order to understand the totality of the social, cultural and economic life of the residents, which is the study of the different dimensions of the residential spaces, in accordance with the totality of the social, cultural and economic system prevailing in the society, among people of any ethnicity or nation. (Soto-Rubio & Hausman, 2019) housing sector can be considered one of the most important sectors of development in a society. With its wide economic, social, cultural, environmental and physical dimensions, this sector has a wide effect in presenting the features and image of the society in general terms (Abyzov, 2017) and has been considered as the main needs of human groups for a long time. In addition, the most important influencing factor in a person's level of satisfaction with living in an area is housing and its environmental conditions (Larsen, 2019). Despite the importance of housing in human life, providing suitable housing for all people is one of the current problems of human societies. In fact, since the 18th century AD, simultaneously with the industrial revolution and the influx of job-seeking population from the village to the city, a problem called housing appears (Mukeku, 2018). Since then, many efforts have been made in this field; But still 20% of the world's population does not have a home worthy of living (Bican, 2020).

Iranian architecture has a language that is rooted in the culture of Iran, so to preserve it, the need to know the basic concepts of this architecture is inevitable. Reviving the relationship between man, architecture and the environment and solving the crises caused by the breakdown of these relationships, it is important to examine the continuity of the quality of residence in architecture and the community living in the city and its relationship with the creation of dynamic, living and functional spac-

es, but clearly, the production of housing with attention It affects the needs and existing situation in the field of mass production to reduce costs on the concept of "home" and its spirit as a place of family life. The course of Iranian architecture has a historical course of transition from tradition to tradition, because the architecture of Iran has continuously followed this concept in the best way in most residential use and the concept in Achaemenid architecture to Qajar architecture, and finally in the Safavid and Qajar periods, it finally emerged. It has made itself evident (Alfaraidy & Furlan, 2017) as one of the main products of architecture, the most important area of human presence and growth, and also the first design and the most extensive achievement in architecture, which has a large volume of it, is called Farakhor. The subject has the most use for humans (Sadr, 2010). The way of life is the only objective and specific aspect of culture through which individual and group distinctions can be made and it is the subject of architectural identity. (Alawadi et al., 2018) As a primary housing, which is produced in a short period of time, it mainly reflects the culture and level of expectations of the residents. (Mualam & Alterman, 2022) Since building a house is a cultural phenomenon, the shape of the house (its physical form and spatial organization) is strongly influenced by the cultural environment to which the house belongs. (Salgn et al., 2017) This spatial syntax presented in this type of houses is in accordance with the needs of the people and the changes are made according to their desires for more well-being. (Gauvain et al., 2019) Historical periods define the relationship between man and space as it is in the body called housing as the first place, and examining its changes can lead to the recognition of residential patterns. (Golany, 2020) and in terms of architecture, this space is very important in their social interactions in urban settlements (Hayward, 1977). According to sociologists, the formation of social classes is affected by the distribution of capital in society. (Hillier & Hanson,

2013) The relationship of man with architectural space is a daily relationship that includes an important part of his life. This relationship is more complicated than the relationship between man and the artistic space of painting and sculpture, because man also experiences this space from the inside. Therefore, after centuries, the main question of architecture, space and life and how to connect these two is still. (Lawrence, 1991) This physical example in different historical periods has seen different styles according to the needs of the society, just as its spatial structure has undergone major changes and the way its spaces are formed is also different. He has found a lot. (Saeednia, 2009) In fact, the factors that change the formation of a body can also be the type of social attitude and belief in it. (Cooper, 1995) According to Bourdieu, there is a kind of dialectical relationship between cultural, economic and social capital. (Sultanzadeh & Ghasemi Nia, 2007) Spatial structure can be considered as the adaptation of the activity organization to the physical environment. Basically, the spatial structure is the manifestation of the internal and external relationships of the units of a spatial complex that is in accordance with cultural needs. (Richard & Lee, 2001) Cultural attitudes, preferences and behaviors are considered as tastes, which show the social structure of housing. (Rainwater, 1996) by examining the architectural spaces of the past in Iran, we find that the principle of sequence in traditional architecture of privacy is separated from other spaces by creating a break in movement axes, the number of these axes is from the entrance The interior of the house did not allow the outsider to find directly the spaces and privacy of the aristocratic house. (Asifa et al., 2018) For this reason, the concept of house in the dimension of housing in the macro view, in addition to creating a platform for life and expressing the quality of life, needs to explain the spirit of the place and the psychological sense of togetherness, which in its generalization, has wide social dimensions. and from the history of human urbanization until now, the quality of

life in housing has affected other symbiosis as well, to the point where architects and urban designers try to default the physicality of housing to create quality. are extracted from comparative studies. Due to several thousand years of civilization, from the history of settlement nearly 7000 years ago in Jiroft, Kerman and the Shahre-sokhte (Burnt City) to the modern era, Iran has undergone many transformations in the appearance of this type of body as the main need of human beings. A society branched from culture and tradition on the one hand, as well as being influenced by western civilizations on the other hand, and the increasing trend of socio-political challenges, have caused confusion in the macro-scale view of the concept of home.

On the other hand, the increase in population in the modern era at the beginning and the steep birth rate in the years after the victory of the Islamic Revolution and the outbreak of the imposed war caused the population to move from the war-torn areas to the big cities of that time, and as a result, the works And the consequences of the war and the economic policies undertaken by the government, the adjustment or liberalization policies of the big cities have faced many issues and problems, especially in the provision of housing for this growing population. It should be noted that homelessness mainly affects the low-income groups or those with fixed incomes. It is like workers and employees; Therefore, providing suitable housing for these groups is one of the pillars of people's fundamental rights. Currently, in the housing sector, there is an imbalance between supply and demand; according to the report presented in the introduction of the Scientific Journal of Housing Economics, despite the existence of more than 2.5 million vacant residential units in the country, about 30% of the country's urban population is in They live in dilapidated and informal settlements and do not benefit from appropriate, safe and sanitary housing, and on the other hand, due to the economic conditions in the social group with low average income,

the demand for small and cheap housing is high (Khan et al., 2021). Therefore, the concept of low-cost housing, according to international trends, especially after the Second World War, led to the creation of a structure whose mass production became one of the priorities of developing countries. Third world countries, which with the problem of urban population increase and the issue of replacement in human habitats, have caused many crises, including energy, increased consumption of fossil fuels, natural hazards, climate change, global warming, etc. Inexpensive housing is a space that, with minimum facilities, provides suitable living and living conditions for the material and spiritual growth of its residents. in such a way that it takes into account the housing needs of low-income Iranian families, in a way On the one hand, the provision of these residential needs should not be less than the minimum vital-residential, and on the other hand, it should be proportional to the facilities and social rights of the individual and his family (Kayani et al., 2014). Based on this, in the recent period, the model of low-cost housing is one of the particularly significant issues because the impact of this architecture includes a wide range of factors from creating effective areas on the quality of life of the residents to the emergence of psychological problems, cultural-social effects; It also has a significant effect on the texture and landscape of the city. The process of providing shelter in the architectural era, on the other hand, in the post-revolutionary era, due to the lack of consistency expected from the government for actions based on planning, to grant concessions in line with the ruling vision for homeownership and the provision of real estate housing for the public based on culture Ghalib is evidently referred to as “real estate syndrome”. This type of approach to help certain groups to “own a house” continues in all program periods in the following years until it leads to the emergence of the “Maskan Mehr” project in the second half of the 80s (Table 1). This program is again A special interpretation of “shelter provi-

sion” reestablished it as a property, which was neither realistic nor operational, especially since such a commitment has no history in the description of the duties of any government in the wide range of their types in terms of the scope of their interventions and duties. Something that should only be considered as the result of the “property housing syndrome” that occurs among this social stratum as an alternative to provide social welfare in the contemporary socio-economic conditions. (Tab. 1)

Therefore, it is possible to enumerate many and very important problems in the “real estate syndrome” view of the concept of house at the country level, which has had a specific impact on each dimension:

-Economic problems: The housing policies of the 9th and 10th governments, especially Mehr housing, were the main cause of the destructive boom and poor quality in the housing sector. The injection of existing and non-existent financial resources of the country into Mehr Housing actually stimulated the market and hyperactive construction throughout the country. On the other hand, the intensification of sanctions aggravated this situation, in the conditions of creating a trade deadlock, the entire economy of Iran was directed towards the non-commercial housing market, so that in addition to the closure of other production and service sectors, the housing production sector is also at risk of saturation. According to official statistics, more than 120 thousand billion tomans from the country’s resources (50 thousand billion tomans through the facilities of Housing Bank, 50 thousand billion tomans from people’s cash contributions and the rest through other operating banks) were spent on Mehr housing. According to reports, only in 2011, the Mehr housing facility increased the monetary base of the country by 80%. Within a year, only due to the payment of unsupported facilities, the monetary base of the country increased

from 50 thousand billion to 90 thousand billion tomans. The translation of this event was the same famous saying that half of all the printed money of the country until 2013 was used in Maskan-Mehr in one year. (Report of the Planning and Budget Organization, 2019) Therefore, in the economic dimension, the creation of inflation and the loss of the country's large capital in investment areas caused the greatest economic damage to the country.

- Social problems: The impact of the economic instability of after 2011 on the Iranian society is undeniable. The effects of this instability can be clearly seen in the middle class and the lower class of society. Not only did the low-income groups not own housing, but according to some reports, the living con-

ditions of the low-income groups worsened after 2011. Before that, in 2009, under the influence of targeted implementation of subsidies, the situation of low-income deciles had improved relatively, but under the influence of inflation, the downward trend started again after two years. The two main factors of inflation in those years were the increase in liquidity under the influence of subsidies and the printing of money without support for housing stamps, as this inflation caused the lower classes to become poorer. It is natural that in shaky and unstable conditions, the social situation also deteriorates, and the Iranian society was suddenly under severe economic pressure after the sudden implementation of two huge economic projects. On the other hand, the accumulated urban

Table 1: History of housing programs and laws for low-income groups in Iran (Cabinetoffice.ir official website)

Important points	Laws and actions
before the revolution	Building housing for poor and low-income people such as alleys of 11 Aban and Nazi-Abad in Tehran
The first program after the revolution	The possibility of people's access to housing with a suitable rent and creating the basis for the production of sufficient rental housing (Note 11)
Year 1993	Housing provision law for low-income people
The second program	Creating the necessary facilities to provide cheap housing for young married people (Note 60)
Year 1998	The law encouraging the construction and supply of rental housing units and its executive regulations
The third program after Revolution	Supporting housing applicants in order to strengthen their financial capacity and simplify the use of bank facilities for buying or building housing (Article 139) Supporting the families of martyrs and veterans applying for housing and in order to strengthen their financial capacity (Article 141)
The fourth program after the revolution	Supporting the creation and benefiting from the participation of organizations, associations and charitable groups that make housing for vulnerable groups (Clause D, Article 30) Subsidizing housing facility fees to builders (private, cooperative and public sectors (cheap and rental residential units) (Clause D, Article 30)
Year 2005	Regulations for granting facilities for the purchase of small housing to low-income employees
Year 2005	Regulations on how to pay loan facilities to low-income tenants
Year 2007	Mehr housing plan
Year 2008	The law on organizing and supporting the production and supply of housing and executive regulations
Year 2009	The Law of Targeting Subsidies (Chapter B, Article 7 - Help to cover the cost of housing, retrofitting housing)
Year 2014	Agreement between the Ministry of Roads and Urban Development for the construction of social housing (Maskan-Omid)

and social problems, including the problems of marginalization and living in worn-out contexts, were more reasons for the intersection of these two situations to put Iran in a socially fragile situation. The creation of identity crises in the newly established towns, the lack of organized urban structures in terms of infrastructure and management, and the increase in crime rates were due to the failure of projects that were presented only with a cheap price index.

-Environmental problems: the production of low-cost housing in this period with the lack of specific standards in terms of structure and construction quality caused that in addition to the vulnerability of this type of housing in the face of natural hazards such as earthquakes, floods, etc., it caused destruction Widespread barren lands and sometimes even a good result and the reduction of its topographical potential. In other words, with the establishment of settlements such as Mehr housing in some parts of the country without preliminary scientific investigations and the lack of reports of negative environmental impact, climate change and artificial hazards showed themselves more. Crises such as earthquakes, floods, land subsidence, drought, and of course social and cultural and even political and security crises that are unstable in the nature of societies are among the drivers of a non-specialist look at the concept of housing and the creation of real estate housing syndrome in the sense of cheapening it.

Among the prominent examples of low-cost housing in the local perspective and in the studied time period, we can mention Mehr housing. The quality of contemporary residential developments, especially affordable types in Iran, has always been under the influence of the market, laws and site, and by ignoring the economic and social aspects of the residents, it has led to the non-responsiveness of the external spaces of these residential complexes. This issue, especially in the Mehr housing project, with the im-

mediate establishment of the apartment on the street, defines a type of relationship between the residence and the society, which is full of violence and apart from the opportunity for interactions and other creative and diverse activities of the Mehr housing users to add color to the space. is. In the example of the city of Kerman, provision for the presence of residents mainly from low economic classes in incompatible environments has been neglected, the inevitable coexistence of people with such economic and social status and not considering their expected privacy by the designers has caused them to adopt behavior patterns that not only It is inside but far away from the urban culture, it is different from the designer's intention for the way of using the spaces and it has caused clustered lives in the interior and exterior spaces. Apparently, the new behavioral trends are caused by this way of designing. In the residence of Mehr Kerman, the spatial structure has nothing to do with the culture and consequently the behavior of the people. In this way, a contradiction has been formed between the inconsistently designed space and users with diverse behavior patterns and lifestyles, which has caused the lack of a sense of belonging, fueled the sale of units by their owners and widespread migrations. Also, in this research, based on Parsons' interaction theory, the relationship between the interaction of socio-economic components and real estate syndrome is to be explained in the form of low-cost housing model. A case study is the architecture of the contemporary residential buildings of Kerman during the period after the Islamic Revolution of Iran, which are studied due to the impact of social and economic issues and the major challenges of this period, and by explaining the economic-social components and verifying their relationships with each other and other components. Sides will achieve the model of low-cost housing formation and provide better design principles for architects in the direction of optimal use of space and will analyze the selected examples. Research always starts with asking questions, and in this way, it

puts issues in front of the researcher that reveal aspects of the ambiguities hidden in a subject. Of course, without having the assumptions of a desirable knowledge system, one cannot ask precise questions, and these are the basic assumptions that differ in the type of question (Groot and Wang, 2016). In this regard, the fundamental assumptions that define the elements of a research, questions in the form of three categories of questions, the main question of the research, questions related to the main question and sub-questions of the research, which are the three axes of looking at the subject of “investi-

gating the concept of affordable housing” and its effectiveness in its social and economic dimensions” we will address them in this research and the main question of the research is what factors in the economic and social dimension have influenced the concept of cheap housing and the flow of real estate syndrome? And the aim of the research is to measure the importance of each economic-social factor in the formation of low-cost housing. Therefore, on this basis, the following conceptual framework is expressed as the formation structure:

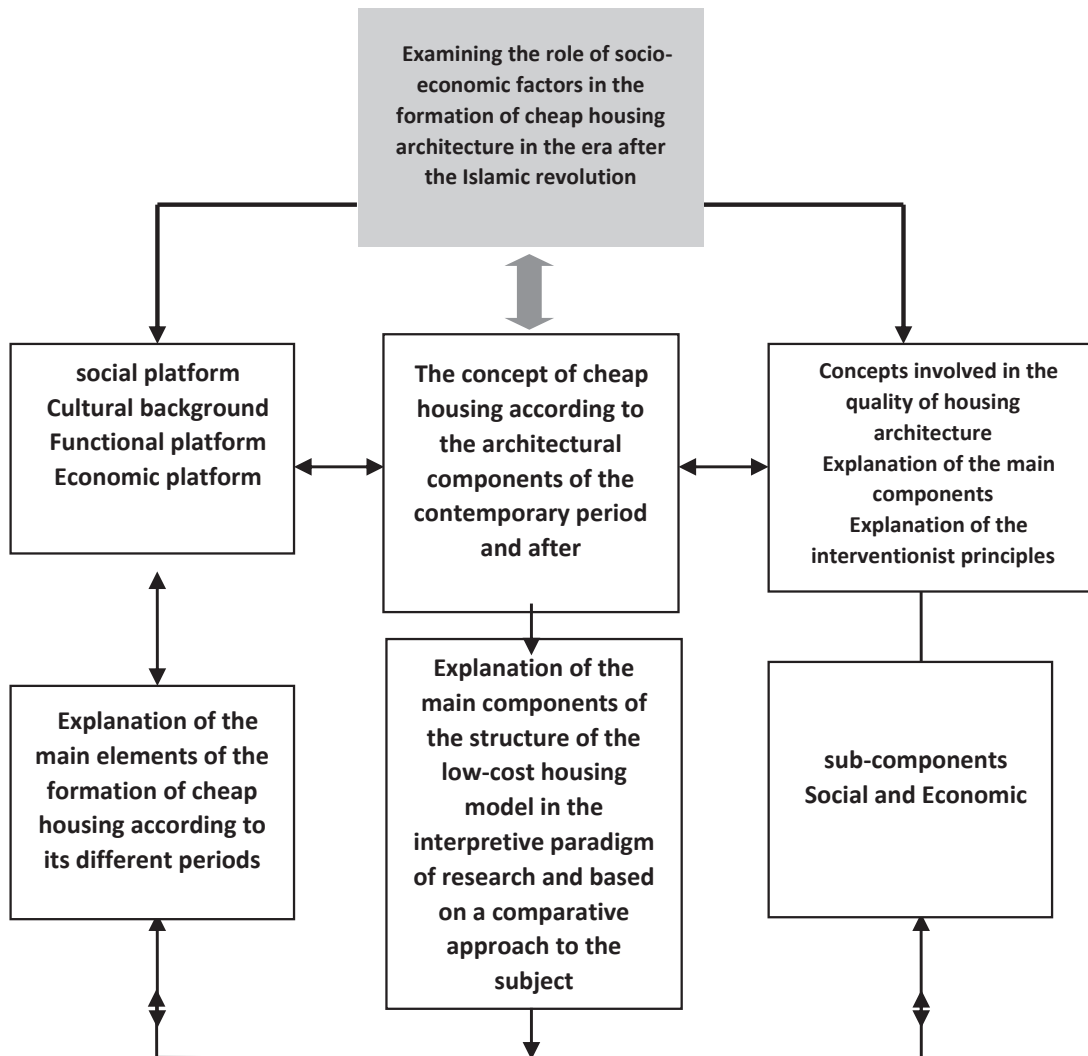


Figure 1: The conceptual mode of recognition

Methodology

The research method of the current research is analytical and practical in purpose. In addition to that, it can also be mentioned that it is a developmental type. The purpose of the current research is to investigate the economic and social aspects of cheap housing after the Islamic Revolution period from 1979 until now. The method of collecting information is a documentary and library method. In this research, the main concepts such as housing, low-cost housing, low-cost residential architecture, as well as the economic and social aspects of housing are discussed, and the concavity of the concepts is discussed using the content analysis method and using the research framework and parallel surveys. Finally, after summarizing the main materials, the economic and social aspects can be examined in the period after the Islamic Revolution and the specific results can be explained. The findings indicate that the methods like granting loans and helps of free money, house building affordable, empowerment, grants of land, grant of housing vacant and rent subject to possession have been used after the Islamic revolution. In the future studies, each of the economic and social aspects can be examined in the model of the proposed indicators in a comparative structure.

MATERIALS AND METHODS

Definition of housing

In the simplest definition, housing is a physical place and it is considered as the basic and basic need of a household, but in a more general definition, housing is something more than a physical place and includes all services and public facilities necessary for a better human life. In the second Human Housing Summit held in Istanbul, suitable housing is defined as follows: suitable shelter does not only mean having a roof over each person's head; Shelter means proper comfort, proper space, physical access and proper security, security of the owner; Structural stability and durability, suitable lighting, ventilation and heating system, suitable basic infrastructure such as water supply, health

and education, waste disposal, suitable environmental quality, suitable sanitary factors, suitable and accessible place in terms of work and basic facilities that all these things should be provided according to people's ability. (Zarei, 2015) The category of housing is wide and complex; It has various dimensions and it is not possible to provide a single definition of it. In this context, many definitions and views can be found among the thinkers of the past and present, of which we will mention some excerpts below. In addition to the physical structure that a family uses as a shelter, the concept of housing also includes the entire residential environment, which includes all the necessary services and facilities needed for the well-being of the family and the employment, education, and health plans of individuals. In fact, the general definition and concept of housing is not a residential unit, but includes the entire residential environment. In his definition of house, Le Corbusier believes that a house is a cover that, in accordance with some conditions, establishes a correct relationship between the outside environment and human biological phenomena. A person or a family should live in a house, that is, to sleep, walk, lie down, see and think (Ghanbari, 2012). The noteworthy point in these definitions is that, if a comparison is made between the definitions of housing. Defects and shortcomings will definitely be evident in all these definitions. But the true nature of all these definitions and what is hidden in the texture of these expressions, refers to a concept beyond the house or in other words four walls. Housing is not just a roofed shelter and room to rest at night, but a place that meets the standards and needs of the people living in it, along with all the things that are inside, outside and around it.

Definition of low-income groups

Urban low-income groups include workers, wage earners, and the unemployed. In all the cities of the third world countries, the members of these groups form the majority of the population, and there are problems such as high mortality rate, higher fertility than other social groups, the economic burden of the country,

low level of literacy and income among them is common. Most of them have a rural origin and are the first or second generation of rural immigrants (Falamaki, 2005).

Definition of affordable housing (minimum)

In the definition, cheap housing is a space that provides suitable living-residential conditions with minimum facilities for the material and spiritual development of its residents and takes into account the residential needs of low-income Iranian families. In such a way that, on the one hand, the provision of these housing needs is not less than the minimum living requirement, and on the other hand, it is proportionate to the facilities and social rights of the individual and his family. Price is the process through which even the lowest income households are able to access a housing and housing services they need, in other words, affordable housing is the threshold at which each household at least solves its housing needs, even with its small financial capacity (Lilian, 2013), shelter and residential services are formed according to the priority and severity of the housing needs and the level of financial and intellectual ability of the household, and the role of the government in this process is a helping role, the government increases the financial and technical ability of the household and the neighborhood, mobilizes the people's forces and aligns its program with the needs and abilities of the slum dwellers, not an inflexible program imposed on them (ibid., 1985). Affordable housing for low-income urban households in developing countries does not necessarily mean a house, but may consist of a plot of land with a tap and a sewage well, or a basic core with four walls and a roof, or only one room, one toilet and one kitchen or water tap, basically cheap housing can hardly be called a house, anyway, such a settlement is always a half-finished house. A completed house is something that no low-income urban household can afford to buy, unless the household itself is able to build and complete its own residence, in such a case, the house built by the household itself

may be in a condition which is not considered part of the existing houses (ibid., 1985).

Cheap house construction

In developing countries, the private sector builds house only for the high-income class, therefore, in these countries, the government should take the largest share in creating low-cost houses. The policy of cheap house construction was carried out in two ways.

- Public housing (government): Public housing was a policy that was adopted by governments to deal with the phenomenon of bad housing, the purpose of which is to build conventional housing for the residents of slums and shacks and move them to new buildings following reconstruction plans and or it was the renovation of urban areas (Lilian, 2013).
- People's house building: empty-handed people usually show two different types of people's response in order to meet their need for shelter, marginalization and the formation of slums. The first one usually includes constructions that are erected illegally or on land without the owner's permission. On the other hand, slums are stable buildings that are destroyed through a combination of factors such as the age of the building, construction tolerance, and building abandonment and division. Its sub-sectors, which impose a lot of pressure on the basic facilities and equipment of the building, are in a sub-standard condition.

DISCUSSION AND FINDINGS

Physical indicators of housing

From a physical point of view, the housing not only has a specific body with special characteristics, but it is considered a structural unit of the city body. Therefore, in addition to addressing the body inside, housing indicators also pay attention to the relationship between this body and other bodies around it. Examples of housing physical indicators are given in the table below. (Tab. 2)

Table 2: Physical indicators of housing

Indexes	Description
Housing pattern (single unit, apartment, complex, high-rise)	Influential factors in the formation of the housing pattern: population, land limitation and the limitation of expansion towards the outside of the city
development pattern	Population density is the main factor in determining building density in the city. Together, these two indicators can determine the type of population settlement and how the city expands on the surface, the development in height and the development of the city from the inside.
Building Density	This index is the basis for examining the intensity of land use and is obtained by dividing the total area of the infrastructure built on a piece of land by the area of that piece.
Occupancy level	This index specifies mass and space.
Residential density	Building density includes concepts such as total residential density, gross residential density and net residential density. Subjects such as figure, image, face and urban profile are closely related to the mentioned index.
Substructure level and substructure per capita	The effective factors in changing this index are access to land, land price, population and cultural issues.
Type of construction materials and method made	The type of building materials indicates the durability and longevity of the building.
The amount of irregular and unauthorized housing	Abnormal and unauthorized housing, although it may have non-physical roots, but due to its physical appearance, it can be considered among the physical indicators. This index shows other aspects of housing such as lack of housing, lack of access to suitable housing and housing location issues. The obvious manifestation of this indicator can be examined mainly around big cities, where its physical effects are in the form of problematic appearance, lack of service from the responsible bodies, visual disturbance, lack of garbage collection, non-compliance with technical issues in housing construction and use of Low durability building materials can be seen.
Appropriate height	To do social activities
Proper orientation of the building	Based on climatic conditions
Sufficient space between building blocks	so as not to prevent air circulation, penetration of sunlight and disturbing the sense of privacy
Adequately sized living spaces	To establish social interactions

Housing economic indicators

Today, large investments are made in the housing sector in developed and developing societies. Therefore, investment in the housing sector is considered a social, economic and productive investment. Therefore, the examination of economic indicators is one of the most important parts in housing examinations. Some economic indicators of housing are listed in the table below. (Tab. 3)

Housing social indicators

These types of issues related to housing deal with the quality of housing and its compatibility with the social and cultural needs of the applicants. There are wide differences in the definition of quality in different parts of the world. For this reason, there will not be a significant match in the social indicators that guarantee part of the housing quality needs. Examples of these indicators are mentioned in the table below. (Tab. 4)

Table 3: Economic indicators of housing

Indexes	Description
The ratio of housing cost to total household cost	Calculation method: housing cost / total household cost
The ratio of housing costs to household income	The housing cost index is shown as a percentage of the total household income.
Price index of construction services and labor	It shows the price of construction services in different years. This index is calculated based on other sub-indexes such as one day's wage of a builder and construction worker, the wage of painting, tiling, plastering, etc. The trend of housing price changes can be checked using this index and other indices such as land price and construction price index.
Wholesale and retail price index of construction materials	The main components of this index are the price of land, construction materials and construction services.
Land price index	Changes in this index are the main and most important factor in housing price fluctuations. The degree of realization of the goals of urban development programs, plans for providing housing, infrastructure and urban equipment will be closely related to the timely and sufficient supply of land.
Government construction credits in the housing sector	Housing accounts for a significant portion of the gross domestic fixed capital. Comparing the amount of government construction credits in the housing sector in several periods can be a suitable solution in examining housing developments and can be a guide in future decisions.
Private sector investment in the housing sector	The main goal of the private sector in the production of housing and playing a role in this field, especially in cities, has been to earn more income and profit, which depends on its profitability and existing laws and regulations.
Credit facilities of banks	In this index, loans granted by banks are checked.
Housing production capacity (units completed in one year (Usually, this index is calculated per thousand people of the total population. Through this index and examining the increase in demand, the shortage of residential units can be calculated.
Job creation in the housing sector	Housing construction has great job creation potential and is used as a shock absorber for the economy in many cases.
Subsidies	Different forms of subsidies: direct payments to households, providing assistance to employees in various departments, providing free land, discount on the rent of residential units, giving loans with low interest rates or grants.

General solutions to provide housing for low-income groups

Providing housing for low-income groups, considering the wide scope of this need, especially in developing countries, is not only beyond the responsibility of a single organization, but also requires the comprehensive cooperation of various sectors of the society, from government organizations to people's groups. slow Organi-

zations that participate in this matter include benefactors, government organizations and cooperatives (Lin, 2012) The housing problem of low-income groups is one of the common problems in all countries. For this reason, various solutions have been proposed and used to solve this problem. Some of these methods are shown in the following tables. (Tab. 5)

Table 4: Housing social indicators

Indexes	Description
The need for housing and its lacks	This index is calculated based on the number of residential units and the number of existing households.
Annual household growth rate (new households in need of housing)	This index, along with other indicators such as the size of the household, determines the number of housing units needed in the future.
Number of households and size of households	These indicators determine the number of housings needed in the future and the lack of housing in the current situation. Household density in a residential unit is calculated through these two indicators.
Urbanization ratio	Due to the fact that the definition of housing can be different in urban and rural areas, it is difficult to compare between urban and rural areas and it is necessary to define the residential unit correctly.
The surface below the building	This index shows the cultural pattern of the need for housing. This index depends on various other factors such as economic factors, the financial power of households and land supply policies.
infrastructure per capita (vital per capita)	This index represents the economic conditions of the society, social and cultural issues and the policies of the housing and land sectors.
Type of building materials and pattern Made	This index is one of the common indices between the physical and social dimensions of housing. This index is considered as a socio-cultural index due to the expression of housing durability and the use of local materials.
Amount and access to services residential	This index shows how the housing interacts with its surrounding environment and indicates the level of access to services such as educational, therapeutic, sports and cultural spaces and green spaces to improve the quality of living.
Household density in residential unit	Due to the fact that this index determines the number of households in a residential unit, it can be considered as an index to determine the amount of housing shortage. If this index shows the number one, it will represent the equality of the amount of available housing with the number of households.
Number of rooms in residential unit	This index is one of the common indices with the physical dimension of housing. Examining the aforementioned index representing the existence of each of the different areas (areas of parents, children, relatives, guests, space for care and maintenance of equipment) in housing, which shows the pattern of living in a residential unit.
Density of people in the room	This index is closely related to household density in a residential unit, household size and room density in a residential unit.
Density of people in a residential unit	This index is closely related to household density in a residential unit, household size and room density in a residential unit.
How to occupy a residential unit	In addition to describing the economy of resident households, this index also describes the household's perception of housing as a place of residence, a commodity, or a household savings.
homelessness	The existence of households without housing units and shelters is one of the major issues and problems of many societies, which in addition to the weaknesses of the economic and policy-making system also has social roots.
bad housing	In addition to the problems of access to services, the low quality of housing, the low density of rooms in a residential unit and people in a residential unit can be checked through this index. As examples of bad housing, we can refer to marginalization, self-contained nuclei, and slums.
entertainment facilities	To establish social interactions
Compliance with the principle of privacy	Lack of visibility to nearby buildings
Ability to perform work activities

Table 5: General strategies for providing housing for low-income groups

Method	Description
Establishment of Housing Bank	In order to guide financial and deposit institutions
Allocation of subsidy	through direct allocation of subsidies to low-income families, attracting mortgage deposits and reducing taxes, providing cheap housing, paying loans with variable repayment
Use of inexpensive methods made	Using cheap construction materials and minimum standards for the basic needs of the family, including the construction of cement skeletons, resistant bricks and stone construction according to the region.
Supporting small-scale construction material manufacturers	Reasons: use of local manpower, use of methods with less pollution
Supporting small contracting companies	Reasons: the use of unskilled workers and local materials, reliance on manpower in construction, the low cost of residential units built by these companies due to the low amount of profit.
Providing land without infrastructure	In this way, the overhead cost of preparation is greatly reduced, and people accept the responsibility of providing infrastructure management from the beginning, and local employment is also developed.
Providing land with facilities infrastructure	-
Support for cheap rental housing Price	Helping to increase the saving power of households
Supporting other higher institutions Official and popular	Advantages: suitable savings and interest-free guarantee, and they can only refer to informal institutions such as family funds, loan funds, and charitable organizations. Disadvantages: low loan limit of these institutions, short repayment period those
Reducing the area of the infrastructure of residential units and as a result reducing the price of housing	-
Making it possible to use savings Futures or granting long facilities Term to small buyers	-
Construction of cheap housing	Projects such as Mehr housing and apartment building
Establishment of capital guarantee fund Housing by the government	If it is not possible to establish these centers, they can be supported by the banking system, insurance companies and professional organizations.
Create a secondary mortgage market for purchase	-
Phased granting of facilities	-
Contract savings plans	In this plan, the person does not receive money for savings, and at the end of the plan, a loan is received.
Compulsory savings plan and fund Special housing	-

Socio-Economic Aspects Influencing the Formation of Low-Cost Housing Architecture

Method	Description
Issuance of housing cooperative bonds	-
Pre-sale and pre-purchase of residential units	This work is opened in Maskan-Bank in order to protect the rights of pre-buyers in the name of the builder.
Providing housing through cooperatives	<p>Advantages:</p> <ul style="list-style-type: none"> - With the participation of members as well as saving profit through production or contact with the main producer and bulk purchase, the cost price of goods and services is reduced to a minimum. - Having government support and legal priorities - Enjoying the services and facilities of cooperative funds and other economic institutions, loans and credit facilities
Flexible standards with attention to social and economic conditions. National and climatic regions of different regions Especially about public facilities	<p>reasons:</p> <p>As the income level decreases, facilities and public services become more important.</p>
Improving the quality of residence	In this method, basic services, including drinking water, sewage, garbage collection and disposal, etc., are provided to the slum dwellers and marginal dwellers, and in the areas where these services exist, it is intended to improve them.
Cooperation and self-help of low-income households	This plan has been proposed due to the surplus of labor in these areas.
Provision of house building materials to Means of industrial owners for Workers	-
Empowerment	<p>In this way, governments support low-income groups through seven tools</p> <p>Effective tools on demand that include: guaranteeing property rights, expanding and increasing access to financing facilities and paying reasonable subsidies, providing necessary infrastructure for land preparation, regulating and monitoring land preparation, removing unnecessary regulations and organizing industries Production of building materials and strengthening public institutions in decision-making and improving the communication of non-governmental organizations with local organizations</p>
Social housing	<p>Attributes</p> <ul style="list-style-type: none"> - It is provided without selfish considerations and its rent is lower than the normal rent level. - The government assigns this type of housing according to the definitions of the needs, so the ability to pay the rent on behalf of the residents is important. <ul style="list-style-type: none"> - There is a lot of government supervision in them. - The suppliers of this type of housing are: the public sector, cooperatives and local non-profit organizations. - These residential units with low infrastructure up to 51 square meters are built in bulk and are rented and rented under the condition of possession, and the rent is called social rent.
Building new cities	By building these settlements, the government is trying to provide cheap housing for low-income groups in a continuous and satellite manner.

Method	Description
Rent control and security of rent and Payment of rent assistance to the household the needy	-
Determining taxes and revenues New and keep it in the fund Especially for the purposes related to Housing	-
Supported housing	This type of housing is built based on consumption pattern standards and the government supports it by subsidizing water, electricity, gas, infrastructure charges and cheap loans.
Equal company method (half rent - Half-mortgage (or half-in-half plan	This scheme was first implemented in 1975 by Birmingham Council. This plan has a small advance payment and fixed installments.
Shelter insurance	This method is a solution to solve the housing problem of government employees or workers covered by the labor law. The basis of the plan is that the insured are safe from the risk and problems of providing housing in such a way that the manager of the unit where the insured works confirms the total annual income of the insured, then the cost of housing for that year according to the opinion of the Central Bank is taken It is possible that the rent of the real house price is higher than the number declared by the central bank, in this case the government will pay the difference to the insurance company.
The method of reconstruction of residential units worn out	reasons: As the income level decreases, facilities and public services become more important.
Creating a land bank	-
Allocation of foreign currency to Creating interior materials	-
Land market control	Prevent land speculation
Improving the quality of housing	No rebuilding and cost reduction
Granting empty housing	Uninhabited houses
Rent subject to possession	-

RESULT AND CONCLUSION

One of the most basic human needs is the need for housing. The concept of housing, in addition to the physical structure and basic shelter, includes all services and facilities necessary for the well-being of the household. Housing planning means allocating habitable spaces to residential needs, which is mostly concentrated in low-income groups. Because this group constitutes the majority of urban communities. According to the background and experiences of providing

housing for low-income groups throughout history, various methods have been used to provide housing for these groups. Each of these methods has been presented according to certain conditions and criteria, and some cases have reached the implementation stage. In the table below, the methods of providing housing for low-income groups, their strengths and weaknesses, and the criteria for applying these methods are presented. (Tab. 6)

Table 6: Methods of providing housing for low-income groups and criteria for applying the method

Method	Criteria for applying the method	Strengths points	weak points
Granting loans and helps of Free money	The economic ability of the government in granting loans, the ability of beneficiaries to receive loans, the ability of beneficiaries to repay loans, the low percentage of loan interest, the economic ability of grant-giving organizations, the readiness of the conditions for receiving financial aid, the ability of beneficiaries to receive aid. Free finance, citizens' awareness of the method of granting loans and free financial aid, the ease of the process of granting loans and free financial aid.	Financial assistance to low-income groups for housing	Increase in inflation and land price
house building Affordable	The low price of housing, the low amount of advance payment, the adaptation of the installment amount to the income of the households, the awareness of the citizens about the mentioned method, the economic capability of the government and other housing agencies in the construction of low-cost housing, the presence of security around the houses, the right distance from the center. city, access to service centers, access to city facilities, access to main streets, asphalt and cleanliness of the roads around the housing	slum destruction and improvement Condition body and The face of the city	Formation poor neighborhoods sit down
Empowerment	The economic capacity of organizations in granting loans for housing repairs, the low bank interest on loans, the ability of beneficiaries to benefit from the mentioned method, the ability of beneficiaries to repay installments, the adaptation of the amount of installments to the household income, the awareness of citizens about the mentioned method, the ease of the loan granting process. , housing access to urban facilities, housing access to service centers, asphalt and cleanliness of the roads around the housing	Organizing and improvement Texture worn out	-
Grant of land	The existence of land that can be granted to low-income groups, the ability of organizations to grant land, the economic ability of citizens to receive land, people's awareness of the mentioned method, the low price of land, the low amount of advance payment, the adaptation of the amount of installments to the income of households, the existence Urban facilities in the land, the presence of security in the areas around the land, the suitability of the land area, the suitability of the distance of the land from the city center, the suitability of the length and width ratio of the land, access to urban facilities, access to service centers, access to main streets, Asphalt and cleanliness of the roads around the ground	flexibility adaptability more in build, Increase Manufacturing and make an instrument According to Income	Need to supply Abundant lands, Need for consultants Technical expert Increase Migration villagers
Grant of housing vacant	Existence of empty houses, the ability of the government and other organizations to collect and grant empty houses, the economic ability of the beneficiaries to receive empty houses, the ease of the process of receiving empty houses, the citizens' awareness of the said plan, the low amount of rent, the low amount of advance payment, there is security around the housing, a suitable distance from the city center, access to service centers, access to urban facilities, access to The main streets, asphalt and cleanliness of the roads around the housing	-	Inadequacy with the living conditions of low-income groups, the low number of vacant houses
Rent subject to possession	The low price of housing, the low amount of advance payment, the amount of installments according to the income of households, the awareness of citizens about the mentioned method, the ability of citizens to benefit from the mentioned method, the ability of the government and other organizations to provide housing for rent under the condition of ownership, the existence of security in Around the house, proper distance from the city center, access to service centers, access to city facilities, access to main streets, asphalt and cleanliness of the roads around the house.	owner Housing many of groups low income	-

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