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Research Paper

Exploring the Factors Influencing the Formation of an Inefficient Social Housing Construction Pattern; Case Study: of Mehr Housing in Ilam City

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ABSTRACT

One of the Iranian government's policies to provide affordable and accessible housing for low-income groups has been the “Mehr Housing” initiative. While this plan has addressed many of the anticipated issues, it also has certain shortcomings. Housing is not merely a physical matter; achieving adequate social housing requires attention to all necessary dimensions of desirable housing, including human and social aspects, cultural considerations, physical form and meaning, historical contexts, and so on. Many of these aspects were overlooked in the implementation of the Mehr Housing project in Ilam city. The present study aims to investigate how the set of challenges facing the housing construction plan for low-income groups has impacted the Mehr Housing project in Ilam. Accordingly, the objective of this research is to investigate the factors affecting the formation of an ineffective social housing model and to identify the issues and damages resulting from the implementation of the Mehr Housing project in Ilam. This research falls within the category of fundamental-applied studies and employs a mixed-methods approach. Data collection was based on indicators extracted from a review of relevant scientific sources. The data collection tool was a questionnaire, which was distributed purposefully within the selected area. The obtained data were analyzed using exploratory factor analysis, and after calculating the relevant matrices, the key factors were identified, interpreted, and labeled. Nine factors—1. Accessibility, 2. Social Participation, 3. Environmental-Aesthetic, 4. Per Capita, 5. Household Economy, 6. Culture and Context, 7. Safety and Security, 8. Physical-Spatial, and 9. Utilities and Services—were found to influence the formation of social housing. Collectively, these factors explained 18.60% of the total variance in the variables. Finally, based on the variance explained by each factor, an effective conceptual and operational model was designed and presented.

Keywords: Social Housing, Mehr Housing, Factor Analysis, Ilam City.

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1. INTRODUCTION

Housing can be regarded as the most fundamental and intimate physical manifestation of the interaction between humans and their environment. This space encompasses the most private dimensions of human life (Lak, Karimi, and Movahed 2021, 166). One of the most basic human needs is the need for shelter, and the accessibility, quality, and quantity of housing—particularly for low-income groups—remain among the key challenges facing governments and societies (Ziari et al. 2016, 212). At the same time, housing plays a crucial role in the process of socialization. As an influential commodity shaping the social structure of space, it plays a foundational role in forming personal identity and social relations (Short 2006, 199). Nevertheless, a large proportion of society—especially low-income households—fail to meet even the minimum standards of adequate housing, and access to affordable housing remains beyond their reach (Atuestaa and Hewings 2019, 36).

In recent years, due to the rapid increase in urban population and extensive structural changes in cities, the issue of housing has gained greater significance. Providing appropriate housing—particularly for low-income deciles—has become an increasingly important and challenging topic (Shaterian, Kiani, and Ghanbari 2017, 110). In this regard, the Iranian government has implemented several policies to alleviate housing shortages. During the 1980s, the Urban Land Plan sought to provide housing for various social groups. However, in subsequent decades, population growth, urban migration, and economic transformations led to persistent housing shortages, especially in cities (Razavi Por and Zakeri 2018, 130).

With the sharp rise in housing prices in 2006 and 2007, the government shifted its policy focus from stimulating demand to stimulating supply, introducing the Mehr Housing Project (Zanganeh Shahraki, Farhadi Khah, and Heydari 2020, 130). This project, initially designed with a community-oriented approach to provide housing units for all families, sought to eliminate land costs as one of the significant components of housing production—alongside capital, land, labor, building materials, and management (Habibi, Godarzi, and Mirzaii 2013).

Although the Mehr Housing Project addressed some housing issues, it also revealed significant deficiencies. Before focusing on the physical aspects, it is essential to consider the human, social, and cultural dimensions of dwelling, as well as its physical, historical, and climatic contexts (Rezaii et al. 2021, 50). The project suffered from inadequate attention to residents' social and cultural needs, resulting in issues such as insufficient infrastructure, weak public services, and management problems. Its implementation in Ilam City, moreover, neglected the city's ethnic, tribal, and cultural characteristics. Given Ilam's distinct social and cultural structure, it represents a unique case for studying the Mehr Housing Project. It reveals the challenges of adapting national housing models to local conditions—an area where previous research remains limited.

This study, focusing on Ilam, examines how cultural, social, and economic contexts have contributed to the inefficiency of the Mehr Housing Project. Using field data analysis, it aims to propose locally adapted solutions for improving similar projects. The main research question is how the challenges faced by low-income housing programs have affected Mehr Housing in Ilam. The research structure encompasses the theoretical foundations, a literature review, the identification and analysis of social housing indicators, and ultimately, the determination of the factors contributing to the inefficiency of Mehr Housing and their respective impacts.

2. THEORETICAL FOUNDATIONS

Social housing is a key instrument in welfare policies for providing affordable shelter to low-income groups. According to an OECD report, there are over 28 million social housing units worldwide (approximately 6% of the total housing stock); however, reduced government investment and a focus on subsidies are considered the main challenges in this sector (OECD 2020). In the United Kingdom, innovative models, such as the South Tyneside Housing Company, have combined social objectives with economic sustainability, providing both affordable housing and generating revenue (The Guardian 2019).

Research in Cornwall, England, has demonstrated that the design quality and infrastructure of social housing play vital roles in residents' mental health and social cohesion (Williams et al. 2020). In Paris, architectural innovations—such as the Marshal Fayolle Residential Complex, designed by SANAA—have enhanced both functionality and aesthetic value, thereby strengthening residents' sense of belonging (Architectural Digest 2019). These examples suggest that the sustainability of social housing necessitates a holistic approach that simultaneously considers the economic, social, and physical dimensions—an issue widely discussed in the global literature, particularly regarding housing finance for low-income populations in developing countries (Tavakoli Nia and Zarghami 2018, 51). The United Nations, through its 2030 Agenda for Sustainable Development (Goal 11), identifies access to adequate, safe, and affordable housing, as well as the upgrading of slums, as a global priority for creating inclusive and sustainable cities (UNDP 2015).

Housing planning can be understood as a set of actions, policies, and strategies designed to provide adequate housing for applicants. This type of planning simultaneously pursues both

quantitative and qualitative objectives (Rezaii et al. 2021, 53). The goals of housing planning include the quantitative dimension (increasing per capita housing, price balance, and construction standards) and the qualitative dimension (meeting biological and social needs), and they must be formulated in accordance with the local conditions of each country or city (Pishgar and Mohamadi 2020, 106). In Iran, social housing provision policies include the establishment of new towns, the regularization of informal settlements, the Mehr Housing project, and the National Housing project.

- New Towns Policy

After the Islamic Revolution, new towns were established to absorb population overflow, decentralize metropolitan areas, and provide housing for low- and middle-income groups. These towns were projected to accommodate approximately 3.5 million people by 2021 (Maleki 2021, 5).

- Informal Settlement Upgrading Policy

Informal settlements, primarily located on city peripheries, fall outside the official urban development framework. Their residents are low-income principal families, rural migrants, and the urban poor (Razavian, Mohamadi, and Abubakri 2013, 56). The National Strategy for Empowerment of Informal Settlements was approved in February 2004, and the National Empowerment Committee for Informal Settlements was established to oversee its implementation (Ministry of Roads and Urban Development 2012).

- Mehr Housing Policy

The Mehr Housing Project was introduced during Iran's Ninth Government to facilitate homeownership for low-income groups by providing free land (Shokohi Bidhendi and Sobhani Zhand 2018, 92). Most of these housing units were built on the outskirts of cities, with about 2.7 million units planned (Afshar 2013). The project aimed to minimize housing costs by focusing on affordability in both design and construction (Lak, Karimi, and Movahed 2021, 168).

- National Housing Policy

In 2018, the Twelfth Government launched the National Housing Action Plan to provide housing primarily for middle-income households. Its main challenges include financial constraints, infrastructure shortages, and managerial and legal issues in some projects (Moavenat Motaleat Zirbanaii 2021).

- Housing Indicators

Attention to housing indicators has recently emerged as a new analytical approach among experts (Maleki 2011, 107). These indicators encompass the economic, social, cultural, and physical dimensions of housing and are utilized to analyze current conditions and inform future planning (Ziari, Mahmoodi, and Farhadi Khah 2017, 51). Examining housing indicators is a standard method for assessing characteristics and identifying effective pathways for housing policy and planning (Nastaran, Ghasemi, and Hadizadeh Zargar 2013, 16) (Table 1).

Table 1. Indicators Extracted from Various Scientific Foundations in the Field of Social Housing

Row	Indicators	Source
1	Ratio of Housing Costs to Total Household Expenditure	(Ziyari 2016)
2	Ratio of Rent and Mortgage Costs to Total Household Income	(Shatrian et al. 2017)
3	Availability of Bank Credit Facilities	(Shatrian et al. 2017)
4	Privacy and Lack of Visual Intrusion within the Household	(Ziyari et al. 2016)
5	Proximity to Main Streets	(Shokoohi Bidehandi 2018)
6	Location and Proximity to the City	(Ziyari et al. 2016)
7	Provision of Suitable Conditions for Children's Growth and Education	(Jalili et al. 2015)
8	Vitality and Liveliness of the Residential Area	(Saeedi et al. 2020)
9	Economic Alignment	(Koochakian et al.. 2017)
10	New Households in Need of Housing	(Razavian et al.. 2017)
11	Need for Modification of Interior Spaces	(Ziyari et al. 2016)
12	Ability to Supervise Children's Activities	(Hier 2004)
13	Level of Drug Addiction in the Area	(Paumier 2007)
14	Social Participation among Residents	(Mohammadi et al. 2018)
15	Adequacy of Housing Unit (Size and Number of Rooms)	(Jan K. Kazak 2023)
16	Building Orientation and Daylight Exposure	(Ziyari 2016)
17	Rate of Theft in the Neighborhood	(Shokoohi Bidehandi 2018)
18	Pedestrian Circulation and Activity in the Neighborhood	(Mohammadi et al. 2018)

Row	Indicators	Source
19	Quality of Infrastructure (Water, Electricity, Gas, Sewage, etc.)	(Razavian et al. 2017)
20	Ease and Safety of Women's Mobility (Psychological Security)	(Mal.eki and Fahliani 2017)
21	Cost of Maintenance and Building Services	(Mohammadi et al. 2018)
22	Accessibility to Commercial Centers	(Rezaei et al. 2021)
23	Level of Prostitution in the Area	(Pourmohammadi et al. 2014)
24	Location of Gathering and Community Spaces	(Mohammadi et al. 2018)
25	Internal Building Components (Ceiling, Flooring, Fireplace, Skylights, etc.)	(Tavakolinia and Zarghami 2018)
26	Spatial Adequacy of Gathering Areas	(Ziyari et al. 2016)
27	Presence of a Yard or Courtyard	(Jan K. Kazak 2023)
28	Safety of Children's Movement	(Shokoohi Bidehandi 2018)
29	Quality of Communal Spaces (Materials, Furniture, Flooring, etc.)	(Qiao et al. 2019)
30	Number of Incidents (Financial, Physical, Domestic, etc.)	(Mohammadi et al. 2018)
31	Residents' Participation in Local Decision-Making	(Lak et al. 2020)
32	Cleanliness and Public Hygiene	(Tavakolinia and Zarghami 2018)
33	Greenery (Trees, Lawns, Gardens, etc.)	(Ziyari et al. 2016)
34	Availability of Private Yard or Parking Space	(Rezaei et al. 2021)
35	Accessibility to Religious Centers	(Pourmohammadi et al. 2014)
36	Building Height and External View from Windows	(Shatrian et al. 2017)
37	Settlement of People of the Same Ethnicity within the Area	(Zammani et al. 2020)
38	Interior plan and Layout of Housing Units	(Shatrian et al. 2017)
39	Accessibility from Various Parts of the City	(Shayeqiyan [no year given])
40	Access to Public and Recreational Spaces	(Jan K. Kazak 2023)
41	Elevator Condition (Capacity and Performance)	(Rezaei et al. 2021)
42	Neighborhood Reputation within the City	(Tahmasbzadeh and Masoud 2022)
43	Access to Healthcare Facilities	(Pourmohammadi et al. 2014)
44	Accessibility to Educational Centers	(Pourmohammadi et al. 2014)
45	Availability of Safety Equipment (Fire Extinguishers, etc.)	(Jal.ili et al. 2015)
46	Access to Welfare and Public Services	(Ziyari et al. 2016)
47	Proximity to relatives and Family Members	(Ziyari et al. 2016)
48	Appropriate Street Width	(Zadoli Khwaja 2018)
49	Access to Housing-Related Services (Workers, Materials, Tools, etc.)	(Jal.ili et al. 2015)
50	Proper Street Paving	(Zadoli Khwaja 2018)
51	Availability of Sidewalks and Curbs	(Zadoli Khwaja 2018)
52	Number of Gathering Spaces	(Lak et al. 2020)
53	Residents' Proper Occupational Status	(Jal.ili et al. 2015)
54	Proximity to Workplace	(Ziyari et al. 2016)
55	Residents' Participation in Neighborhood Events	(Garcia 2018)
56	Exterior Building Design (Façade and Landscaping)	(Ghanji 2008)
57	Number of Housing Units per Block (Density)	(Reid A. 2023)
58	Access to Cultural Centers	(Reid A. 2023)
59	Proper Street Slope and Drainage	(Pourmohammadi et al. 2014)
60	Climatic and Environmental Conditions	(Zadoli Khwaja 2018)

3. LITERATURE REVIEW

Reviewing the research background is essential for identifying study gaps and understanding the theoretical and empirical context. In this section, both domestic and international studies related to social housing, particularly the Mehr Housing project in Iran, are reviewed with a focus on physical, social, and economic dimensions, as well as residents' satisfaction, to clarify the position and innovation of the present research.

John Kazak (2023), in his study "Intergenerational Social Housing for Older Adults: Findings from a Central European City," demonstrated that the targeted buildings, by reducing architectural barriers, improving comfort, access to services, and social relationships, generated high satisfaction among residents in a Central European city. Elderly and other residents showed greater interest in intergenerational projects, with high life satisfaction and a firm intention to remain in the buildings (87% of elderly and 80% of other residents). Alasdair Reid (2023), in the study "Closing the Affordable Housing Gap: Identifying the Barriers Hindering the Sustainable Design and Construction of Affordable Homes," demonstrated that UN member countries require an inclusive, socially sensitive approach with user participation in design and investment to achieve sustainable construction. Nicoletti, Sirenko, and Verma (2022), in the study "Disadvantaged Communities Have Lower Access to Urban Infrastructure," demonstrated that ethnic minorities with lower income and education have less access to infrastructure, which leads to social isolation and a decrease in their quality of life. Fan et al. (2022), in the study "Diversity Beyond Density," showed that urban environments with higher social diversity experience lower crime rates and higher quality of life, emphasizing the importance of urban design with a social diversity approach for resident security and welfare (Lak, Karimi, and Movahed 2021, 166).

In the study "Assessing Components for Improving Mehr Housing in Reducing Social Vulnerability: Case Study of Sadra Mehr Housing," four main components—architectural and infrastructural, economic, environmental, and socio-cultural—were examined. Results indicated that these components contributed to the improvement of Sadra Mehr Housing with respective shares of 22.8%, 36.61%, 45.5%, and 53.21% (Rezaii et al. 2021). Similarly, investigations in the study "Examining Residents' Satisfaction with Mehr Housing from the Physical-Social Dimension in Sahand New Town" found that physical and social factors play an effective role in residents' satisfaction, with a direct and significant relationship observed between these two categories of factors (Zameni, Razaghi asl, and Pour Mahabadian 2020). In the research "Comparative Assessment of Social Capital Components in Urban Public Housing," it was demonstrated that in Mehr Housing, the Berim area excels only in terms of "sense of social belonging." In contrast, in Bovarde, both "institutional trust" and "sense of belonging" are better, but "social participation" is low in both areas. Results indicate that zoning and demographic segregation reduce interaction and social participation. An interdisciplinary perspective, integrating cultural, social, governance, and physical design components, provides a new horizon for policy-making. Additionally, the study on residents' satisfaction in Gorgan Mehr Housing showed the lowest satisfaction in indicators of "security," "identity," "sense of belonging," and "cultural spaces." In contrast, the highest satisfaction was related to "population density," "literacy rate," and "university education," highlighting the importance of factors affecting quality of life in social housing policy (Barzegar and Ghorbani 2019).

Ziari et al. (2017) demonstrated that in Ahvaz, social and cultural housing indicators are of higher importance to citizens due to ethnic diversity, socio-economic differences, and the expansion of worn-out neighborhoods and informal settlements (Ziari, Mahmoodi, and Farhadi Khah 2017). Shaterian et al. (2017) demonstrated that improvements in physical structure and economic satisfaction mutually enhance residents' social and physical satisfaction in Kashan Mehr Housing (Shaterian, Kiani, and Ghanbari 2017). Razavian et al. (2018) reported that the Parand Mehr Housing project failed to improve social housing indicators for low-income groups, with these indicators remaining at a low level. In the study "Examining Quantitative and Qualitative Social Housing Indicators in Rural Areas (Case Study: Mamasani County, Fars Province)," Maleki and Amiri (2017) showed that in rural Mamasani, from a quantitative perspective, housing is inadequate and densely populated, while qualitative social indicators, services, and durability of construction materials are in better condition. In the study "Critique and Pathology of Policy and Operational Planning of Mehr Housing in Iran," Habibi and Behzadfar (2010) showed that the success of Mehr Housing can reduce young people's housing problems and create positive psychological and social effects; however, failure in implementation leads to applicant frustration, rising housing prices, unemployment, inflation, and resource wastage. A review of the literature reveals that most studies in Iran have focused on the physical, social, economic, or environmental aspects of social housing and the Mehr Housing project, with limited attention given to the root causes and inefficiencies of construction models. The present research, focusing on Ilam city and its ethno-cultural structure, addresses the pathology and analysis of why Mehr Housing is ineffective, with its distinctive aspect being the focus on how the construction model itself is inefficient.

4. RESEARCH METHODOLOGY

In this study, exploratory factor analysis was employed to identify underlying dimensions and the structure of the variables. The results revealed diverse indicators grouped into several meaningful factors, which were extracted from the scientific literature on social housing (Table 1). The research is fundamental in nature, and data were collected through questionnaires and interviews. Qualitative data were quantified using a Likert scale and analyzed with SPSS; thus, the methodology employed is a mixed-methods approach (quantitative-qualitative). Indicators affecting social housing quality were derived from reliable sources, and Ilam Mehr Housing was selected as the case study. For the exploratory factor analysis, 400 questionnaires were collected, ensuring that for each indicator at least three to five samples were examined, with higher numbers increasing the reliability of results (Saeidi, Kheyrodin, and Behzadfar, 2020, p. 111). Therefore, approximately seven samples per indicator were considered to determine the sample size. To examine the suitability of the data for factor analysis, the Kaiser-Meyer-Olkin (KMO) sampling adequacy index and Bartlett's Test of Sphericity were calculated. The results from these two tests confirmed the adequacy of the sample size and the appropriateness of correlations between variables for conducting factor analysis. The significance level of Bartlett's test was $p = 0.0001$, and the KMO value was 0.819, indicating that the data were suitable for factor analysis and that the sample size was sufficient to identify the structure of the hidden factors.[1] To provide an overview of the demographic characteristics of the questionnaire respondents, information such as age, gender, education level, type, and duration of residence in Mehr Housing was collected and presented in Table 2.

Table 2. Personal and Residential Characteristics of Research Participants

Variable	Category	Percentage (%)
Gender	Female	48.3
	Male	51.7
Age	Under 18	4.5
	18–24	30.5
	25–44	25.5
	45–60	32.5
	Above 60	7
Education	Illiterate	5.5
	Below Diploma	28.5
	Diploma	26.5
	Bachelor's	31
	Postgraduate	8.5
Duration of Residence	Less than 1 Year	52
	1–7 Years	35
	7–12 Years	13
Type of Residence	Owner	36.3
	Renter	63.7

4.1. Study Area

Ilam city, with a population of over 194,030 people (based on the 2016 National Population and Housing Census) and an area of 21,2804.67 hectares, is divided into four districts and 14 urban zones[2] (Mohandesin Moshaver Bood Teknik 2016). The Mehr Housing area in Ilam is located in Zone 3 of District 4, within the Janbazan neighborhood. This zone is situated at the northwestern edge of the city, expanding along the northern foothills, so that its north boundary is limited by the slopes of the elevations, forming the final limit of the city's physical development in this section. Ilam Mehr Housing consists of 70 blocks, of which 45 blocks are designated as "Employee Mehr Housing" and 25 blocks as "Self-Employed Mehr Housing" (Fig. 2).

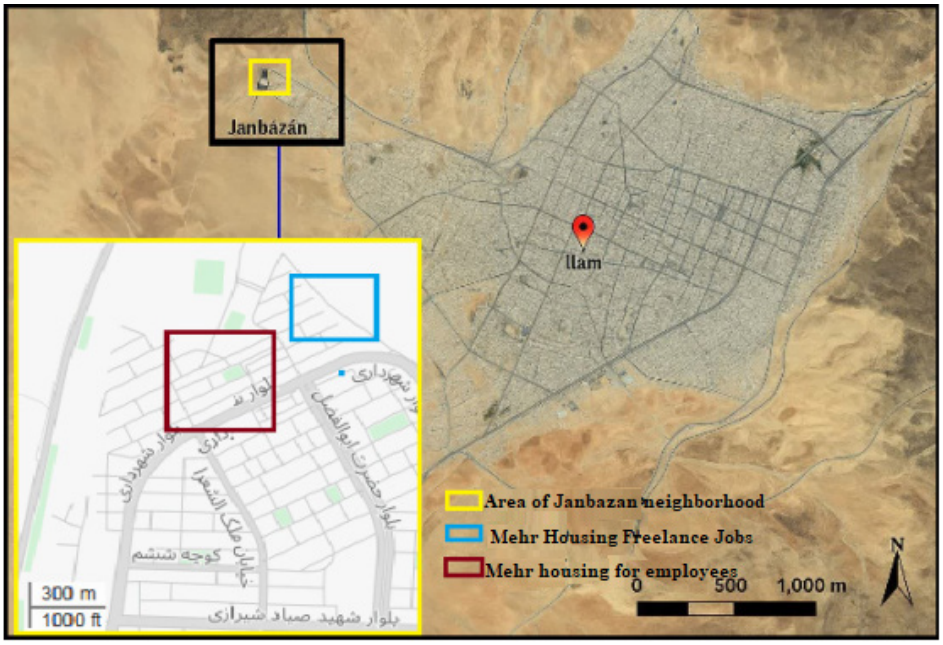

Fig. 1. Location of Janbazaran Neighborhood in Ilam City and the Position of Mehr Housing Blocks in the Neighborhood

(Google Earth)

5. FINDINGS AND DISCUSSION

After confirming the correlation of the data and the factorial capability of the indicators, the next step is to identify the fundamental factors that play the most significant role in explaining the subject's dimensions. In the initial analysis without rotation, the principal components (PCA) method was used to determine the number of factors. The optimal number of factors was determined by the Kaiser criterion (factors with eigenvalue ≥ 1) and the Scree Plot, and its three breakpoints confirmed the optimal number of extracted factors. The first at point (n=5), the second at point (n=10), and the third at point (n=19). In other words, at the first breakpoint, four factors should be extracted, at the second breakpoint, nine factors, and at the third breakpoint, 18 factors. However, only the first four factors were able to explain a total of 41.992% of the data's variance, which is less than the conventional 60%. The number of 18 factors is not a suitable option due to the high number of factors compared to the number of variables (60 questions). Therefore, considering the main criteria for determining the fundamental factors —namely, an eigenvalue above one and explaining at least 60% of the cumulative variance —the factor structure is valid. Based on the mountain slope diagram, nine factors with a cumulative variance of 61.181 and eigenvalues above one are extracted.

The eigenvalues of the first factor are 8.1, the second factor is 7.3, the third factor is 6.4, the fourth factor is 3.3, the fifth factor is 2.67, the sixth factor is 2.39, the seventh factor is 2.16, the eighth factor is 2.12, and the ninth factor is two. The results of the statistical analysis showed that the 60 research indicators can be reduced to a set of factors that provide a clear structure for analysis, and each factor makes a distinct contribution to explaining the variance of social housing quality indicators, with the contribution decreasing in order of the factors. After rotating the factors in the analysis, the first factor explained the highest amount of variance (13.6%), and the ninth factor explained the lowest amount (9.9%). In other words, the first factor was able to explain 13.6% of the dispersion of the research indicators. Factors with higher eigenvalues play a greater role in explaining changes and indicate a direct relationship between them. In total, these factors explain 61.18% of the variance in the total data, indicating the analytical power and strength of the structure and the underlying grounds of the concept of social housing (Table 3).

Table 3. Eigenvalues and Cumulative Variance of Factors Affecting Social Housing Quality

Factor	Initial Eigenvalues			Extracted Sum of Squared Loadings			Rotated Sum of Squared Loadings		
	Total	Percentage of Variance	Cumulative Variance Percentage	Total	Percentage of Variance	Cumulative Variance Percentage	Total	Percentage of Variance	Cumulative Variance Percentage
1	8.161	13.601	13.601	8.161	13.601	13.601	7.900	13.167	13.167
2	7.351	12.252	25.853	7.351	12.252	25.853	6.985	11.642	24.810
3	6.461	10.768	36.621	6.461	10.768	36.621	6.933	11.556	36.365
4	3.356	5.594	42.215	3.356	5.594	42.215	3.376	5.626	41.992
5	2.675	4.459	46.674	2.675	4.459	46.674	2.645	4.409	46.401
6	2.391	3.985	50.659	2.391	3.985	50.659	2.344	3.906	50.307
7	2.168	3.613	54.272	2.168	3.613	54.272	2.245	3.742	57.049
8	2.121	3.534	57.807	2.121	3.534	57.807	2.172	3.619	57.668
9	2.025	3.374	61.181	2.025	3.374	61.181	2.108	3.513	61.181
10	1.896	3.159	64.340						
11	1.814	3.024	67.365						
12	1.621	2.701	70.066						
13	1.593	2.656	72.721						
14	1.494	2.490	75.212						
15-59	0.022 -1.225	0.037 -2.042	99.971-77.254						
60	0.017	2.029	100						

5.1. Rotating the Factor Matrix, Naming and Interpreting Factors

After identifying the underlying factors of social housing quality, the next step is to rotate the factor matrix so that each indicator has its maximum load on a specific factor, making it easier to identify and name the factors. In this study, the Varimax method was employed, which simplifies the factor matrix by maximizing the variance of the loads in each column, thereby clarifying the differentiation of the factors. The most desirable situation is achieved when each indicator has a significant relationship with only one factor and does not overlap with other factors. The rotated linear combination provides the most incredible power to explain the variance. The results of the final rotation revealed that nine main factors, serving as fundamental dimensions of the quality of inefficient social housing, explained the variance in the variables. The rotated factor matrix also shows that the correlation of the indicators with each factor, based on the factor loading, was between -1 and +1, and these values were the basis for the final classification of the indicators (Table 4). It should be noted that for each factor loading to be reliable, its value must be at least 0.3 or more, and each indicator should not have a significant load on several factors simultaneously. Indicators with a high correlation to the relevant factor are considered more accurate in explaining that factor. The basis for naming each factor is also based on the combination of indicators with high factor loadings on the same factor.

Table 4. Rotated Factor Matrix

Index	Factor								
	1	2	3	4	5	6	7	8	9
1	-0.083	0.006	-0.015	-0.023	0.881	-0.002	-0.011	0.032	0.075
2	-0.039	0.014	0.006	-0.043	0.867	-0.105	0.047	0.082	0.028
3	-0.054	-0.038	0.004	-0.002	0.929	-0.080	-0.008	0.046	0.059
4	-0.098	0.018	-0.040	0.171	-0.287	-0.452	0.176	0.250	0.137
5	0.945	0.012	-0.041	0.051	-0.029	0.007	0.022	-0.009	-0.014
6	0.895	0.032	-0.042	0.061	-0.012	0.005	0.016	-0.027	0.011
7	-0.095	-0.004	-0.068	0.163	-0.301	-0.423	0.179	0.219	0.143
8	0.012	0.937	0.022	0.037	0.022	0.023	0.010	-0.002	-0.050

Index	Factor								
	1	2	3	4	5	6	7	8	9
9	0.016	0.040	-0.031	0.198	0.421	-0.088	0.042	-0.054	-0.199
10	0.108	0.001	-0.024	0.917	-0.016	-0.014	-0.073	0.028	0.040
11	0.065	0.098	0.010	-0.142	0.009	-0.106	0.00	0.527	0.475
12	0.011	-0.043	-0.012	0.027	0.035	0.037	-0.645	-0.076	0.023
13	-0.047	0.036	-0.109	0.002	0.014	-0.310	-0.218	0.097	0.056
14	0.003	0.952	0.000	-0.001	0.002	0.044	0.008	0.010	-0.048
15	0.090	0.011	0.028	0.919	-0.025	0.021	-0.085	0.020	0.027
16	0.117	0.084	-0.004	-0.169	0.027	-0.148	0.0014	0.538	0.457
17	0.036	-0.018	-0.001	0.030	0.028	0.044	-0.675	-0.054	0.016
18	0.025	0.939	0.025	0.021	0.002	0.016	0.005	0.007	0.055
19	-0.069	-0.027	0.030	0.155	0.052	0.213	0.002	-0.117	0.623
20	0.017	-0.063	0.040	-0.088	-0.023	0.040	0.731	-0.043	-0.035
21	-0.105	0.036	-0.019	-0.005	0.013	0.052	0.022	0.200	-0.104
22	0.953	0.028	-0.042	0.029	-0.030	-0.001	-0.021	0.013	0.013
23	-0.058	-0.034	-0.089	0.096	-0.007	0.657	-0.018	0.103	0.000
24	-0.031	0.883	0.076	0.029	-0.005	-0.016	0.002	-0.025	0.004
25	-0.021	0.045	0.931	-0.052	-0.001	-0.018	0.030	0.007	-0.004
26	0.013	0.935	0.058	-0.014	0.007	0.032	0.024	0.009	-0.018
27	-0.014	-0.008	0.921	0.030	0.037	0.010	0.001	-0.002	0.012
28	0.026	-0.061	0.004	-0.080	-0.009	0.039	0.743	-0.040	-0.014
29	0.048	0.880	-0.002	-0.003	-0.011	-0.014	0.030	0.070	-0.056
30	0/082	-0.015	0.005	-0.049	-0.121	-0.047	-0.102	-0.197	-0.060
31	0.016	0.982	0.027	-0.004	-0.006	0.035	-0.008	-0.002	-0.040
32	-0.066	-0.037	0.888	-0.059	-0.013	-0.007	0.017	-0.006	-0.053
33	0.009	0.030	0.0900	-0.045	-0.031	-0.003	0.008	0.021	-0.038
34	-0.014	0.097	0.008	0.099	0.049	0.089	0.229	0.088	-0.017
35	0.984	0.023	-0.035	0.024	-0.029	-0.005	-0.006	-0.020	0.016
36	-0.020	0.050	0.896	0.032	-0.010	-0.024	0.024	0.004	-0.019
37	-0.037	-0.023	0.099	0.078	-0.009	0.663	0.011	0.082	-0.014
38	-0.028	0.034	0.970	-0.003	0.036	-0.006	0.021	0.005	-0.018
39	0.035	-0.078	0.047	0.041	-0.001	0.048	-0.042	0.803	-0.251
40	0.911	-0.009	-0.060	0.058	-0.002	-0.017	0.003	-0.014	0.008
41	-0.008	0.128	0.043	0.033	-0.018	0.089	0.042	0.067	-0.553
42	-0.034	0.114	-0.005	-0.070	-0.109	0.597	0.000	0.106	0.113
43	0.926	-0.012	-0.013	0.029	0.000	-0.037	0.047	0.016	-0.006
44	0.921	0.003	-0.002	0.038	-0.017	-0.029	-0.018	-0.031	0.007
45	-0.023	0.061	0.101	0.022	0.077	0.068	0.010	-0.037	-0.188
46	-0.041	-0.004	-0.099	-0.088	-0.099	0.041	0.016	-0.010	0.041
47	0.066	-0.021	0.024	-0.010	0.030	-0.076	0.219	0.041	0.090
48	-0.061	0.054	0.085	0.022	-0.008	-0.163	-0.098	0.003	-0.210
49	-0.070	0.020	0.001	0.156	0.030	0.213	0.098	-0.101	0.595
50	-0.019	-0.056	-0.001	0.117	-0.073	0.164	-0.001	-0.053	0.018

Index	Factor								
	1	2	3	4	5	6	7	8	9
51	0.010	0.093	0.035	0.053	-0.047	0.124	0.073	0.0113	-0.354
52	0.068	0.002	-0.046	0.807	-0.008	0.015	-0.027	-0.036	-0.012
53	-0.013	0.103	0.038	-0.112	-0.082	0.602	-0.031	0.070	0.094
54	0.864	0.037	0.026	0.083	-0.008	0.030	0.042	-0.027	0.001
55	0.032	0.893	0.004	-0.010	-0.034	-0.015	-0.066	-0.020	-0.029
56	-0.020	0.045	0.965	-0.037	-0.013	-0.025	0.033	0.001	-0.022
57	0.092	0.026	0.002	0.847	-0.029	0.006	-0.020	0.047	0.009
58	0.948	0.012	-0.018	0.020	-0.035	-0.022	0.027	0.023	-0.018
59	0.023	-0.068	0.054	0.036	0.019	0.062	-0.031	0.795	-0.236
60	-0.070	0.035	0.919	-0.030	0.024	0.001	0.041	0.029	0.001

Variables that do not have a significant factor loading or have a high loading on more than one factor should be removed from the model because they indicate non-separability. After calculating the rotated matrix, the naming and interpretation of the factors are essential. Indicators with high correlation usually form a common factor, and their semantic interpretation will be the basis for naming and analyzing the factors. Accordingly, and considering the score of each indicator in the final factors, the underlying factors have been named and interpreted as follows:

First factor: This factor explains 13.16% of the variance of the variables and is closely related to indicators such as location, proximity to the city, access to health, educational, cultural, commercial and religious centers, public spaces and main streets and evaluates the level of residents' access to urban points; therefore, the first factor was named "access".

Second factor: This factor explains 11.64% of the variance of the variables and is related to indicators such as neighborhood vitality and vitality, residents' social participation, people's traffic, quality of gathering spaces (location, area, furniture, and materials), residents' participation in changes, and participation in ceremonies and events. Given the centrality of individual participation and the quality of gathering spaces, this factor was named "social participation".

Third factor: This factor explains 11.55% of the variance of the variables and is related to indicators such as the condition of the building's internal factors (ceiling, floor, fireplace and light), the building's external design (facade and landscaping), the internal plan, satisfaction with the yard and grounds, hygiene and cleanliness, greenery of the area, building height and landscape, and climatic conditions. These indicators reflect the concepts of beauty and efficiency of the building's internal and external environment; therefore, the third factor was named "Aesthetic and functional environmental perception".

Fourth factor: The fourth factor explains 5.62% of the variance of the variables and is related to indicators such as the number of households in need of housing, the adequacy of the housing unit (area and number of rooms), the number and area of communal spaces, and the number of units in each block; therefore, this factor was named "per capita".

Fifth factor: This factor explains 4.4% of the variance in the variables and is related to indicators such as total housing costs, mortgage and rental costs, bank facilities, and the economic balance of residents. These indicators cover the concepts of finance, household expenses, and income; therefore, the fifth factor was named "household economy".

Sixth factor: This factor explains 3.9% of the variance in the variables and is related to indicators such as privacy, children's living conditions, addiction, prostitution, residents' ethnicity, neighborhood popularity, and job status. These indicators cover the concepts of social harms and cultural commonalities of residents; therefore, the sixth factor was named "culture and context".

Seventh factor: This factor explains 3.7% of the variance of the variables and is related to indicators such as the possibility of monitoring children's activities, theft, and the safety of women and children's movement. These indicators cover the concepts of psychological and physical security; therefore, the seventh factor was named "Safety and Security".

Eighth factor: This factor explains 3.6% of the variance of the variables and is related to indicators such as internal changes of the building by residents, orientation to sunlight, slope of passages, and quality of access routes to the neighborhood; therefore, the eighth factor was named "Physical-Spatial".

Factor Nine: This factor explains 3.5% of the variance in the variables and is related to indicators such as infrastructure facilities (water, electricity, gas, and sewage), elevator quality and capacity, ancillary facilities, access to services and amenities, sidewalks, scheduling, and housing-related services. These indicators cover the concepts of internal and external facilities of the building and neighborhood services;

therefore, the ninth factor was named “Facilities and Services”.

The indicators of “cost of building services and repairs,” “area accident rate,” “private grounds and parking,” “additional facilities such as fire extinguishers,” “proximity to relatives,” “appropriate width and flooring of passages” were removed from the model due to the lack of significant correlation with other indicators and do not play a role in the interpretation of the factors. Considering the variables and factors that affect the social housing construction pattern, a conceptual-operational model framework for social housing construction is presented (Fig. 2).

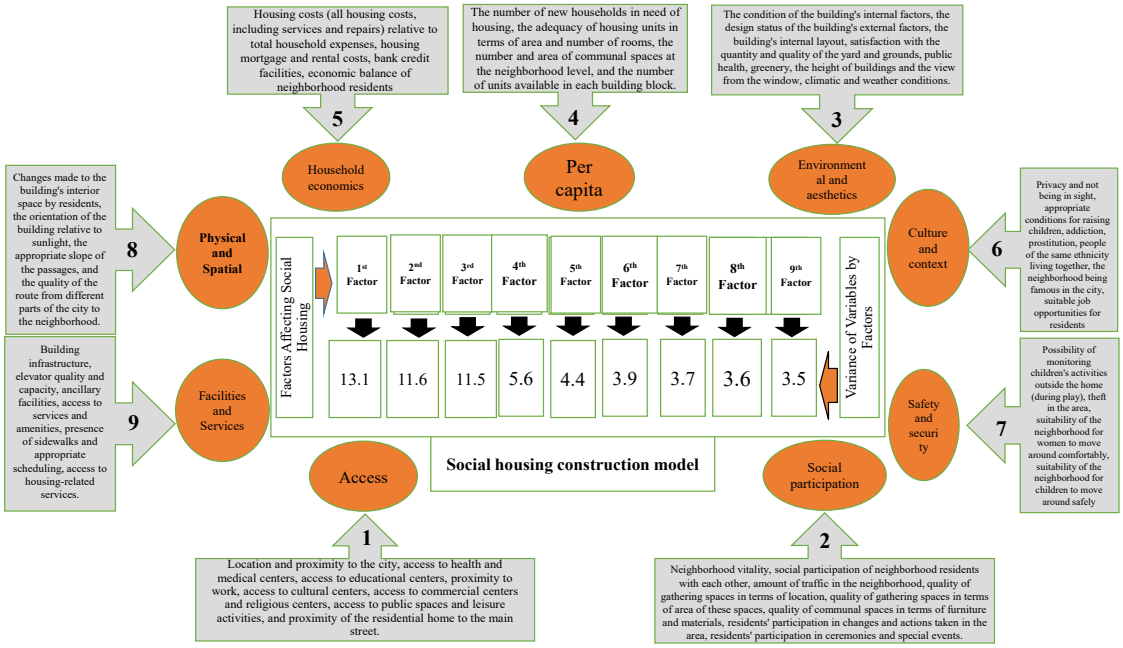

Fig. 2. Conceptual-Operational Framework of the Social Housing Construction Model

To determine the optimal social housing model, focusing on a limited number of variables is insufficient. A diverse set of components, influenced by time, location, culture, society, geography, and administrative policies, must be examined, as these factors can significantly impact research outcomes. Data analysis from this study indicates that the quality of social housing is influenced by multiple factors, all of which must be considered across all levels of housing planning. The indicators highlighted in various social housing theories are explained through nine foundational factors, and the model demonstrates that social housing inefficiency in Ilam city results from the interaction of these factors within a context of specific cultural, social, and economic characteristics. Therefore, the conceptual model of the research has a causal and multidimensional structure, simultaneously affected by individual, environmental, and structural variables.

The study’s findings revealed that the fundamental factors of social housing are not limited to physical and spatial qualities, but are also related to diverse contextual factors across various scales. As noted in prior studies, numerous investigations have assessed the status of social housing and the Mehr Housing Project in Iran, measuring residents’ satisfaction across multiple dimensions (Kazak 2023). While these studies examined factors related to location, spatial placement, and the physical domain of social housing, they overlooked identity and cultural aspects that influence quality of life (Rezaii et al., 2021). In contrast, Lak, Karimi, and Mohahed (2021) investigated social issues within the Mehr Housing Project. However, it focused solely on the physical domain without considering the broader urban context and the project’s interaction with other city areas. Maleki and Amiri (2017) conducted a quantitative and qualitative assessment of social housing, examining only per capita indicators and occupancy patterns, while omitting factors related to physical structure, society, culture, environment, and other qualitative dimensions. Regarding the identification of barriers to effective social housing, Reid (2023) addressed shortcomings in project management concerning supply, site planning, and environmental factors, while overlooking components related to identity, culture, and social infrastructure. The present study, in line with its objective of examining the factors influencing the social housing construction model, particularly Mehr Housing in Ilam, successfully identified the key factors affecting the social housing construction model and assessed the impact of each on housing quality.

6. CONCLUSION

Affordable housing policies hold a prominent place in the main programs of many countries, driven by rapid urban population growth and increased housing demand. To meet this demand, governments have prioritized the provision of social housing. Considering the importance of comprehensive and systematic planning for low-income groups, this study examined factors influencing the social housing construction model, particularly Mehr Housing in Ilam. Data analysis showed that nine factors—" accessibility," "social participation," "environmental and aesthetic quality," "per capita," "household economy," "culture and context," "safety and security," "physical-spatial," and "infrastructure and services"—affect social housing quality. The contribution of these factors to explaining the total variance of variables is 61.18%, with respective contributions of 13.1%, 11.6%, 11.5%, 5.6%, 4.4%, 3.9%, 3.7%, 3.6%, and 3.5%.

Identification of these factors was conducted through field surveys and various sources within Ilam's Mehr Housing. Considering the social, cultural, economic, and environmental structure of the area, as well as residents' dissatisfaction with many indicators, Mehr Housing in Ilam was deemed inefficient. Samples were purposefully selected, and the results of factor analysis are generalizable, as they are based on field data from the same area. The findings suggest that factors influencing social housing can be examined across multiple domains, with each factor having varying explanatory power in relation to the research problem. The primary factor, "accessibility," accounts for approximately 13% of inefficiency, according to residents. Following this, the lack of suitable conditions for social participation and the poor quality of environmental and aesthetic components are other significant factors contributing to inefficiency. Subsequent factors include "per capita" (unit, block, and complex area and adequacy), "economy" (cost, income, and financial facilities), "culture and context" (misalignment with residents' cultural background), "safety and security" (lack of appropriate structures), and finally "physical-spatial" and "infrastructure and services," which, with lower explanatory power (3.6% and 3.5%, respectively), are the weakest factors of Mehr Housing inefficiency in Ilam from residents' perspectives. The present study's findings on Mehr Housing inefficiency in Ilam align with previous studies, emphasizing the importance of physical, social, economic, and infrastructure dimensions. For instance, Lak et al. (2021) identified similar components.

Also, the low satisfaction of residents with social and environmental indicators reported in studies such as Barzegar and Ghorbani (2019) and Razavian et al. (2017) is consistent with current findings on the prominent role of "social participation" and "environmental and aesthetic" factors. In addition, the factor of "access" is identified as the most important factor in the present study, which is entirely consistent with the results of research on inequality in access to urban infrastructure for deprived communities (Nicoletti, Sirenko, and Verma 2022). In the field of the impact of economic and cultural factors, studies by Maleki and Amiri (2010) and Habibi and Behzadfar (2017) have highlighted the importance of economic conditions and cultural mismatch in Mehr housing, which aligns with the results of the exploratory factor analysis in the present study. Finally, the weakness in the physical-spatial dimensions and infrastructure services has also been emphasized in the studies (Shaterian, Ziari, Mahmoodi, Kiani, and Ghanbari 2017; Farhadi Khah 2017), which confirms the current findings regarding the inefficiency of spatial structure and service provision in Mehr housing in Ilam. This comparison shows The findings of the present study are consistent not only with domestic research but also with global literature in the field of social housing and can be used in future policymaking.

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CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

MORAL APPROVAL

The authors commit to observe all the ethical principles of the publication of the scientific work based on the ethical principles of COPE. In case of any violation of the ethical principles, even after the publication of the article, they give the journal the right to delete the article and follow up on the matter.

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The authors state that they have directly participated in the stages of conducting research and writing the article.

ENDNOTE

1. Cerny and Kaiser (1997) consider a numerical value above 0.05 for KMO to be acceptable.
2. Region one includes: Central Section, Zhiyan, Ban Bor, Governorate; Region two includes: Sabzi Abad and Ban Borz; Region three includes: Sad Dastghah, (Old Airport-Nowruz Abad), Pich Ashouri and Radio and Television; Region four includes: Azadgah, Ramnegan, Chalimar and Janbazan.

REFERENCES

- Afshar, Zohreh. 2013. "Delivery of 2.7 Million Mehr Housing Units." *Iran Newspaper* (19). [in Persian]
- Architectural Digest. 2019. "*SANAA Completes an Elegantly Designed Social Housing Complex in Paris*." Architectural Digest. https://www.architecturaldigest.com/story/sanaa-completes-elegantly-designed-social-housing-complex-in-paris.
- Ardalan, Nader. 2008. "Interview with Darab Diba." *Journal of Architecture and Urban Planning Articles*. [in Persian]
- Atuesta, Laura H., and Geoffrey J. D. Hewings. 2019. "Housing Appreciation Patterns in Low-Income Neighborhoods: Exploring Gentrification in Chicago." *Journal of Housing Economics* 44: 35-47. https://doi.org/10.1016/j.jhe.2018.08.005.
- Azadarmaki, Taghi. 2009. "Socio-Cultural Dimensions and Mehr Housing." *Manzar Journal* 2: 45-46.[in Persian]
- Barzegar, Sadegh, and Alireza Ghorbani. 2019. "Examining Satisfaction with the Mehr Housing Project from the Perspective of Social Sustainability: A Case Study of Mehr Housing in Gorgan City." *Iranian Journal of Social Issues Sociology* 8(April). [in Persian]
- Deputy of Infrastructure Studies. 2011. Evaluation of the National Housing Action Plan. Research Center of the Islamic Consultative Assembly. [in Persian]
- Fan, Zhuangyuan, Tianyu Su, Maoran Sun, Ariel Noyman, Fan Zhang, Alex 'Sandy' Pentland, and Esteban Moro. 2022. "Diversity Beyond Density: Experienced Social Mixing of Urban Streets." arXiv. https://doi.org/10.48550/arXiv.2209.07041.
- Farrokh Zanouri, Abbas. 2001. "The Necessity of Urban Regeneration." *Municipalities Journal* 7. [in Persian]
- Ganji, Mohammad. 2008. Analysis of Sociological Factors Affecting the Creation of Happiness among Household Heads in Isfahan. PhD Dissertation in Sociology, Faculty of Literature and Humanities, University of Isfahan. [in Persian]
- Garcia, Luis-Manuel. 2018. "Agonistic Festivities: Urban Nightlife Scenes and the Sociability of 'Anti-Social' Fun." *Annals of Leisure Research* 21(4): 462-479. https://doi.org/10.1080/11745398.2017.1398097
- Habibi, Mohsen, Mohsen Goodarzi, and Hojatollah Mirzaei. 2013. "Economic and Social Pathology of the Mehr Housing Project: Report from the Session of the Social Policy Group on Sunday, December 29." [in Persian]
- Hezarjaribi, Jafar, and Zeynab Emami Ghaffari. 2019. "Study of the Evolution of Welfare Housing Policy in Iran." *Quarterly Journal of Welfare Planning and Social Development* 38: Spring 2019. [in Persian]
- Hier, Sean P. 2004. "Risky Spaces and Dangerous Faces: Urban Surveillance, Social Disorder and CCTV." *Social & Legal Studies* 13(4): 541-554. https://doi.org/10.1177/0964663904047333.
- Jacobs, Allan B., and Donald Appleyard. 1987. "Toward an Urban Design Manifesto." *Journal of the American Planning Association* 53(1): 112-120. https://doi.org/10.1080/01944368708976642.
- Jafari Shahin, and Amirhossein Pourjohari. 2022. "Examining the Future Challenges Facing Mehr Housing Policies and the National Housing Action Plan: The Case of Pardis New Town." *Future Cities Outlook Quarterly* 3(4): 89-108. [in Persian]
- Kazak, Jan K. 2023. "Intergenerational Social Housing for Older Adults: Findings from a Central European City." *Habitat International* 142: 102966. https://doi.org/10.1016/j.habitatint.2023.102966.
- Khalili, Ahmad, Hanieh Nourollahi, Naeimeh Rashidi, and Maryam Rahmani. 2015. "Evaluation of Mehr Housing Policies in Iran and Proposing Solutions for Their Improvement." *Urban Studies Scientific-Research Quarterly* 13: 83-92. [in Persian]
- Koochakian, Masoud, Simon Ayvazian, Darab Diba, and Vida Norouz Borazjani. 2017. "Redefining the Concept of Housing and Residence Based on Economic and Social Components." *Urban Management* 16(49): 263-86. [in Persian]
- Lak, Niloufar, Baqer Karimi, and Khosrow Mohahed. 2021. "Evaluation of Enhancing Components of Mehr Housing to Reduce Social Vulnerability from Residents' Perspective: Case Study of Sadra Mehr Housing." *Scientific-Research Quarterly of New Perspectives in Human Geography* 13(4). [in Persian]
- Mahin Nastran, Vahid Ghasemi, and Sadegh Hadizadeh Zargar. 2013. "Evaluation of Social Sustainability Indicators Using Analytic Network Process (ANP)." *Applied Sociology* 24(3): 155-173. [in Persian]
- Maleki, Mahsa. 2021. "Comparative Study of Social Housing Experiences in Iran and Other Countries." *Architectural Studies: Journal of Architecture and Urban Planning of Iran* 3(18): Spring 2021. [in Persian]
- Ministry of Roads and Urban Development. 2012. Mehr Housing Information System. [in Persian]
- Ministry of Roads and Urban Development. 2013. *Mehr Housing Information System*. Tehran: Ministry of Roads and Urban Development.
- Mohammad Taghi Razavian, Mostafa Haraeini, Mehrdad Bahrami, Paria Alizadeh, and Paria. 2018. "Evaluation

of Social Indicators of Mehr Housing from Citizens' Perspective (Case Study: Mehr Housing of Parand City)." *Geography and Environmental Studies* 6(24): 51-64. [in Persian].

- Mohammadi, Fariborz, Sattar Parvin, and Yaser Rastegar. 2018. "Challenges of Social Policy in Housing and Its Impact on Formation of Social Deviance (Case Study: Parand Mehr Housing)." *Journal of Welfare Planning and Social Development* 9(36): 142-75. [in Persian]
- Morteza Zamani, Sina Rezaqi Asl, and Elham Pour Mahabadian. 2020. "Comparative Assessment of Social Capital Components in Urban Public Housing: Case Study of Berim and Bavarde Districts, Abadan." *Journal of Architecture and Urban Planning of Iran (JIAU)* 11(1): 115-130. [in Persian]
- Nicoletti, Leonardo, Mikhail Sirenko, and Trivik Verma. 2022. "Disadvantaged Communities Have Lower Access to Urban Infrastructure." *Environment and Planning B: Urban Analytics and City Science* 49(8): 2111-2128. https://doi.org/10.1177/23998083221131044.
- Organisation for Economic Co-operation and Development (OECD). 2020. *Social Housing: A Key Part of Past and Future Housing Policy*. Paris: OECD Publishing. https://doi.org/10.1787/5b54f96b-en.
- Paumier, Cyril B. 2004. *Creating a Vibrant City Center: Urban Design and Regeneration Principles*. Washington, D.C.: Urban Land Institute.
- Pishgar, Elaheh, and Alireza Mohammadi. 2020. "An Analysis of Housing Indicators' Changes in Tehran Metropolis during the Period 2009–2019." *Urban Economics* 9(2): 106-118. https://doi.org/10.22034/UE.2020.09.02.05 [in Persian]
- Pourmohammadi, Mohammadreza, Shahrivar Roustaei, and Ahmad Asadi. 2014. "An Analysis of Social Desirability and Its Impact on Residential Location Choice: A Case Study of Neighborhoods with High Residential Development in the Dilapidated Fabric of Zanjan City." *Urban Research and Planning* 5(17): 1-18. [in Persian]
- Qiao, Lin, Huiping Huang, and Yichen Tian. 2019. "The Identification and Use Efficiency Evaluation of Urban Industrial Land Based on Multi-Source Data." *Sustainability* 11(21): 6149. https://doi.org/10.3390/su11216149.
- Razavi Pour, Maryam Sadat, and Mohammad Mahdi Zakari. 2018. "Examining Iranian-Islamic Identity in Mehr Housing Projects' Architecture." *National Studies* 19(75): 123-140. [in Persian]
- Razavian, Mohammad Taghi, Kaveh Mohammadi, and Taher Aboubakri. 2013. *Urban Dilapidated Spaces*. Imam Reza University Press. [in Persian]
- Reid, Alasdair. 2023. "Closing the Affordable Housing Gap: Identifying the Barriers Hindering the Sustainable Design and Construction of Affordable Homes." *Sustainability* 15: 8754. https://doi.org/10.3390/su15118754 .
- Rezaei, Baqer, Mohammadreza Pakdel-Fard, Hasan Sattari Sarbanqoli, and Shabnam Akbari Namdar. 2021. "Residents' Satisfaction with Mehr Housing from the Physical-Social Dimension in Sahand New Town: A Case Study of Aftab Complex." *Geography Quarterly* 19(69). https://doi.org/10.22054/urdp.2022.62783.1369. [in Persian]
- Saeedi, Mahdi, Reza Kheiraldin, and Mostafa Behzafar. 2020. "Explaining the Factors Affecting the Vitality of Public Space: Case Study of Valiasr Crossroad, Tehran." *Sustainable City Quarterly* 3(2): 106-123. [in Persian]
- Shaterian, Mohsen, Sedigheh Kiani Salmi, and Rana Ghanbari. 2017. "Evaluation of Socio-Economic and Physical Effects of Mehr Housing from the Residents' Perspective (Case Study: Mehr Housing of Kashan)." *Geography (Regional Planning)* 7(3). [in Persian]
- Shayegian, Mahsa. 2017. "A Method for Evaluating Access to Public Transportation Systems in Urban Areas Based on GIS." *Second National Conference on New Research and Educational Findings in Civil Engineering, Architecture, Urban Planning, and Environment of Iran*. Tehran: Mehr Arvand Institute of Higher Education. [in Persian]
- Shokoohi Bidehendi, Mohammad Saleh, and Sepehr Sobhani Zhand. 2018. "Pathology of the Mehr Housing Project with Regard to Indigenous Settlement Planning Principles (Case Study: Bandar Khamir)." *Journal of Islamic Architectural Research* 3(6): 91-116. [in Persian]
- Short, John R. 2006. *Housing Policy in the United States*. 3rd ed. New York: Routledge.
- Soltanzadeh, Hossein. 2003. "The Beginning of the Formation of Contemporary Squares." *Architecture and Culture* 15-16. [in Persian]
- Tahmasabizadeh, Farshad, and Mohammad Masoud. 2022. "Analysis of Place Identity Indicators in New Urban Neighborhoods (Case Study: Neginshahr Town, Isfahan)." *Quarterly Journal of Welfare Planning and Social Development* 53: 121-60. [in Persian]
- Tavakolinia, Jamileh, and Saeed Zarghami. 2018. "Pathology of the Fifth and Sixth National Development Programs in Providing Housing for Low-Income Urban Groups." *Studies on Urban Structure and Function* 5(16): 47-82. [in Persian]
- The Guardian. 2019. "Innovative Solutions to the UK's Housing Crisis." *The Guardian* (March 12). https://www.theguardian.com
- United Nations Development Programme (UNDP). 2015. *Transforming Our World: The 2030 Agenda for Sustain-*

able Development. New York: United Nations.

- Vice President of Infrastructure Studies. 2011. *Evaluation of the National Housing Action Plan*. Tehran: Research Center of the Islamic Consultative Assembly.
- Williams, Andrew James, Kath Maguire, Karyn Morrissey, Tim Taylor, and Katrina Wyatt. 2020. "Social Cohesion, Mental Wellbeing and Health-Related Quality of Life among a Cohort of Social Housing Residents in Cornwall: A Cross-Sectional Study." *BMC Public Health* 20(Article 985). https://doi.org/10.1186/s12889-020-09078-6.
- Zadoli Khajeh, Shahrokh. 2018. Eco-Centered Rethinking in the Feasibility of Physical-Qualitative Improvement of Informal Settlements Based on Minimum Housing Standards (Comparative Study of Ahvaz and Tabriz Metropolises). PhD Dissertation in Geography and Urban Planning, Faculty of Humanities, Shahid Chamran University of Ahvaz. [in Persian]
- Zangeneh Shahraki, Saeed, Hossein Farhadikhah, and Asghar Heidari. 2020. "Challenges of Mass Housing: Assessing the Weaknesses of Mehr Housing at the National Scale." *Studies on Urban Structure and Function* 7(24): 129-154. [in Persian]
- Ziari, Karamatollah, Mahmoudi Arvin, and Hossein Farhadikhah. 2017. "Evaluation of Housing Choice Indicators in the City (Case Study: Ahvaz)." *Urban Management Studies* 9(30): 49-63. [in Persian]
- Ziari, Keramatollah, Ahmad Pourahmad, Hossein Hataminejad, and Akbar Mohammadi. 2016. "Urban Low-Income Housing Planning with Emphasis on Financial Capability and Housing Poverty Line: The Urban Population of Kurdistan Province." *Human Geography Research* 48(96): 211-226. [in Persian]
- Ziari, Somayeh, Rahmatollah Farhodi, Ahmad Pourahmad, and Hossein Hataminejad. 2017. "Housing Provision Patterns for Low-Income Groups: A Case Study of Karaj City." *Human Geography Research* 4(49): 869-883. doi:10.22059/JHGR.2016.59110. [in Persian]

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